Research on Online-offline Blended Teaching Mode of College English in Smart Education Context

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Abstract

With the comprehensive advancement of digital teaching reform in higher education, traditional single offline college English teaching fails to satisfy diversified and individualized learning needs of contemporary undergraduates. Supported by intelligent teaching platforms and informationalized education technology, online-offline blended learning becomes a vital reform direction for university public English courses. As a compulsory foundational curriculum, college English focuses on improving students' practical language competence and cross-cultural literacy, which calls for breakthroughs against fixed class schedules and rigid traditional teaching arrangements. Taking non-English major undergraduates from comprehensive universities as research objects, this paper constructs a three-phase closed-loop blended teaching framework including pre-class online preview, in-class offline interactive lessons and post-class online consolidation. Relying on a semester-long contrast teaching experiment covering 286 participants and questionnaire survey, the research compares learning initiative, self-directed learning competence, classroom engagement and academic performance between traditional lecturing and optimized blended teaching. Empirical data proves the proposed teaching framework remedies the obvious defects of cramming teaching, stimulates students' learning enthusiasm and promotes balanced progress in listening, speaking, reading and writing. Teachers adopt learning big data from online platforms to carry out targeted tutoring and personalized instruction, upgrading the overall quality of college English teaching effectively. This study provides practical empirical evidence and optimization suggestions for college English curriculum innovation under smart education background.

Keywords

Smart Education; College English; Blended Teaching; Online-offline Integration; Teaching Reform; Autonomous Learning.

1. Introduction

1.1. Research Background

Digital transformation has turned into the mainstream trend of global higher education renovation in recent years[1]. The popularization of mobile internet and big data analytic tools reshapes conventional classroom teaching environment, and China's education authority advocates deep integration of information technology and campus teaching to build intelligent teaching systems[5].

College English is an essential general course to develop students' international communication ability and cross-cultural awareness. Nevertheless, most domestic universities still stick to teacher-centered offline teaching. Uniform teaching schedule and fixed learning content ignore obvious individual gaps in students' English foundation, resulting in low classroom participation and insufficient oral practice. Single offline teaching

is confined by fixed class hours while pure online learning lacks effective teacher-student communication and learning supervision. Accordingly, blended teaching combining the merits of two teaching forms becomes an inevitable reform choice for college English[2].

1.2. Research Significance

1.2.1. Theoretical Significance

Based on constructivism, personalized education and smart education theories, this research builds a systematic blended teaching system for college English[1]. It enriches the research achievements of informationalized foreign language teaching and expands the application range of blended learning theory in university basic English courses, offering theoretical reference for liberal arts curriculum reform in higher education.

1.2.2. Practical Significance

The three-stage closed-loop teaching mode designed in this paper possesses strong operability for daily English teaching[3]. It helps teachers update outdated teaching ideas and realize data-based precise teaching. For undergraduates, the new teaching arrangement activates learning motivation, cultivates regular autonomous learning habits and improves practical English application ability especially in oral expression and academic writing[4].

1.3. Research Status

1.3.1. Foreign Research Status

Overseas scholars put forward blended learning concepts in the 1990s, confirming this teaching mode balances teachers' guidance and students' independent learning[1]. Related foreign language researches verify blended teaching improves classroom interaction and learners' self-study efficiency. However, most overseas experiments are carried out under second language acquisition environment, whose research conclusions cannot be directly applied to Chinese EFL teaching scenes[2].

1.3.2. Domestic Research Status

Driven by domestic educational informatization policy, local researchers conduct abundant studies on blended college English teaching[5]. Existing studies generally recognize blended teaching's advantages over traditional single teaching, yet most papers stay in theoretical discussion without complete pre-in-post closed-loop teaching design and sufficient empirical data. Few researches formulate matching whole-process assessment rules for blended teaching, which becomes the starting point of this empirical research.

1.4. Research Content and Methods

1.4.1. Research Content

This paper first sorts out core teaching theories and analyzes prominent drawbacks of traditional college English teaching[1]. Then it constructs targeted online-offline blended teaching framework suitable for domestic university English courses. After that, a contrast teaching experiment is arranged to test practical teaching effect. Finally, optimization plans are put forward aiming at problems found in teaching practice[3].

1.4.2. Research Methods

Four research approaches are adopted in this research: literature review, contrast experiment, questionnaire investigation and comparative data analysis[2]. Literature review arranges domestic and overseas research findings as theoretical foundation; controlled experiment sets experimental and control groups for comparative research; questionnaires collect students' subjective learning feedback; data comparison quantifies the gap of learning outcomes under different teaching modes.

2. Theoretical Basis

2.1. Constructivist Learning Theory

Constructivism points out knowledge is actively built by learners rather than passively received from teacher's indoctrination[1]. Pre-class online preview lets students finish preliminary knowledge construction; offline classroom discussion solves confusing learning points; post-class online exercises realize knowledge internalization, which fully matches the core viewpoints of constructivist learning[3].

2.2. Individualized Teaching Theory

Individualized teaching requires differentiated learning tasks according to students' varied learning foundation and study habits[2]. Traditional unified teaching cannot satisfy layered learning demands, while online learning platform records learning data to support teachers' hierarchical task distribution and personalized after-class tutoring.

2.3. Smart Education Theory

Smart education depends on digital technology to realize refined and personalized teaching management[5]. Blended teaching takes intelligent platforms as carrier to monitor the whole learning process from preview to consolidation, supplying technical guarantee for college English teaching reform.

3. Existing Deficiencies of Traditional College English Teaching

3.1. Rigid and Single Teaching Form

Traditional English class centers on textbook explanation and grammar parsing with scarce interactive activities such as role-play and group English discussion. Dull classroom atmosphere reduces students' learning willingness and restricts the improvement of oral competence.

3.2. Separation Between In-class Teaching and After-class Learning

Limited by fixed class time, traditional teaching fails to supervise students' after-school learning efficiently. Most undergraduates lack standardized self-study plans and gradually form passive learning dependence.

3.3. Neglect of Students' Individual Differences

Freshmen from different regions own uneven English foundational levels, but unified teaching schedule makes poor-foundation students weary of study and advanced learners lack enough challenging learning content.

3.4. Imperfect Result-oriented Evaluation Mechanism

Conventional evaluation mainly depends on final exam scores and ignores daily classroom performance and autonomous learning performance, guiding students to focus on exam-oriented memorization instead of long-term comprehensive language accumulation.

4. Construction of Online-offline Blended Teaching Mode

4.1. Pre-class Online Autonomous Preview Stage

Teachers release layered preview assignments including basic vocabulary learning and grammar micro-lessons via intelligent teaching platform[3]. Platform automatically records learning duration and exercise accuracy; teachers analyze statistical data to adjust key teaching points for offline lessons and avoid redundant basic knowledge explanation.

4.2. In-class Offline Interactive Teaching Stage

Based on pre-class preview data, teachers focus on explaining universal difficult points and organize diversified interactive activities like group discussion and impromptu English speech to activate classroom atmosphere and improve students' oral output willingness[4]. Hierarchical in-class exercises are deployed to match learners at different levels.

4.3. Post-class Online Consolidation and Expansion Stage

According to classroom performance, teachers publish categorized after-school tasks: basic exercises for knowledge consolidation and extended reading & oral simulation for advanced learners[2]. Online platform tracks task completion status, and teachers provide targeted one-on-one tutoring for underperforming students; open online discussion area extends classroom communication to spare time.

4.4. Construction of Diversified Whole-process Evaluation System

A composite assessment system combining process evaluation and final exam is established[5]: pre-class preview accounts for 20%, in-class performance occupies 30%, post-class learning plus final test takes up 50%. Whole-process evaluation comprehensively assesses students' daily learning attitude and comprehensive language proficiency.

5. Empirical Research and Result Analysis

5.1. Experimental Design

Two parallel non-English major classes with total 286 students are selected as research objects, divided equally into experimental group (blended teaching) and control group (traditional teaching)[3]. Same textbook, class hours and instructor are arranged for two groups; pre-test proves no obvious initial English level difference to ensure experiment rationality. The experiment lasts one semester of 18 teaching weeks, all 286 distributed questionnaires are fully recovered with valid recovery rate 100%.

5.2. Academic Performance Analysis

Post-test statistics show experimental group average score reaches 82.6 against control group's 76.3. Excellent rate (above 85 points) of experimental group hits 42.6% versus 25.2% of control group; failure rate of experimental group is only 3.5%, much lower than control group's 9.8%. Experimental group gains prominent advantages in listening, oral and writing items, verifying blended teaching's practical value[4].

5.3. Questionnaire Result Analysis

91.6% students in experimental group recognize blended teaching raises learning interest; 87.4% form stable autonomous learning habits; 89.5% actively join classroom interactions, with overall satisfaction rate reaching 93.1%. By contrast, control group's comprehensive satisfaction only stands at 67.8% with weaker learning initiative and classroom participation.

5.4. Practical Problems Found in Experiment

Three typical problems appear during teaching implementation: partial students lack self-discipline and finish online tasks carelessly; part online resources mismatch classroom progress; individual teachers are insufficient in analyzing learning data to carry out deep personalized tutoring.

6. Optimization Strategies of Blended Teaching

6.1. Optimize Hierarchical Online Teaching Resources

Teachers screen and classify online learning materials to build targeted resource library, update resources regularly according to teaching progress to realize precise matching with offline classroom content[5].

6.2. Complete Learning Supervision and Incentive Rules

Build platform early-warning mechanism for students with low task completion rate, link online learning performance with usual process score to restrict perfunctory learning behaviors[3].

6.3. Improve Teachers' Digital Teaching Competence

Universities organize regular special training on blended teaching design and learning data analysis to upgrade teachers' ability of personalized teaching arrangement[4].

6.4. Build Dynamic Teaching Adjustment Mechanism

Teachers summarize periodic learning data and student feedback to dynamically adjust task difficulty and teaching content, continuously optimize blended teaching system to fit students' changing learning demands[2].

7. Conclusion

Against the background of educational digital reform, traditional single offline English teaching cannot satisfy modern talent cultivation requirements[1]. The constructed three-stage online-offline blended teaching integrates advantages of autonomous online learning and interactive offline classroom, effectively solving existing common teaching drawbacks including rigid curriculum arrangement and neglected individual student differences.

Empirical semester experiment confirms blended teaching effectively improves students' learning motivation, self-study ability and comprehensive English performance[3]. Aiming at practical implementation obstacles found in teaching, targeted optimization countermeasures are put forward in this paper to supply operable reference for university English teaching reform.

Future research can expand experimental sample scope and research cycle, explore differentiated blended teaching plans for students of different majors, and combine emerging digital technology to further promote intelligent development of college English education[5].

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