

Research on Classroom Interaction in English Major Based on Multimodal Theory

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Abstract: *With the development of information technology, the application of multimodal theory in education has become increasingly widespread. In the context of English major teaching, integrating multimodal resources and designing interactive strategies can significantly enhance classroom interaction and improve students' learning experience. This paper explores classroom interaction strategies in English major based on multimodal theory. Through literature review, current situation analysis, and strategy design, the paper reveals the role of multimodal interaction in enhancing students' language proficiency and learning motivation. The study finds that the effective application of multimodal resources can promote teacher-student and student-student interactions. However, challenges such as insufficient technical support and difficulties in resource integration still exist in practical application. This paper provides theoretical and practical guidance for the design and implementation of multimodal classroom interaction strategies, aiming to promote innovation and development in English major teaching.*

Keywords: *multimodal theory, classroom interaction, English major teaching, interaction strategy, multimodal resources*

1. Introduction

In the context of globalization and rapid development of information technology, English, as an international lingua franca, has seen continuous evolution in its teaching methods and strategies. Traditional English teaching methods, which primarily rely on single-modal information transmission such as oral explanation and text reading, can no longer meet the diverse learning needs of modern students. Multimodal theory, by integrating various modalities such as language, images, audio, video, and gestures, provides students with a richer and more interactive learning experience, becoming a hotspot in current educational research.

Studies have shown that classroom interaction plays a crucial role in language learning. Effective classroom interaction not only stimulates students' interest and motivation in learning but also facilitates the internalization and application of language knowledge. However, the current state of classroom interaction in English major teaching is still far from satisfactory, with room for improvement in the frequency and quality of interactions between teachers and students, as well as among students themselves. The introduction of multimodal theory offers a new perspective for addressing this issue. By applying multimodal resources and designing interaction strategies, the effectiveness of classroom interaction can be significantly enhanced.

2. Theoretical Foundations of Classroom Interaction

2.1 Overview of Interactive Teaching Methods

Interactive teaching methods refer to the promotion of knowledge transmission and understanding through interactions between teachers and students and among students themselves during the teaching process. This approach emphasizes active participation in teaching activities by both teachers and students, stimulating students' initiative and creativity through discussions, Q&A sessions, and cooperative learning. Interactive teaching posits that learning is not just a process of knowledge acquisition but also an interactive process of cognition and emotion.^[1]

In interactive teaching methods, the teacher's role shifts from being a knowledge transmitter to a

learning guide and facilitator. Teachers design and organize various interactive activities to create an open and equal classroom atmosphere, encouraging students to actively participate, ask questions, and share their views. For instance, through group discussions, students can exchange ideas and learn from each other, fostering diverse ways of thinking. Through classroom Q&A sessions, students can practice their language skills and critical thinking. Through cooperative learning, students can develop teamwork and problem-solving skills while completing tasks together.

Interactive teaching methods also emphasize the importance of feedback and evaluation. Teachers should promptly understand students' learning progress and difficulties, offering individual tutoring and group discussions to help students overcome learning obstacles and consolidate their knowledge. Additionally, teachers should encourage self-assessment and peer assessment to enhance students' autonomy and self-management skills. In summary, interactive teaching methods facilitate the transmission, understanding, and application of knowledge through various forms of interaction, thereby improving teaching effectiveness and students' overall competencies.

2.2 The Role of Multimodal Interaction in English Major Teaching

Multimodal interaction plays a crucial role in English major teaching. By integrating various modalities such as language, images, audio, video, and gestures, students are provided with a multi-sensory learning experience, enhancing the effectiveness of information transmission. For example, videos and images can provide intuitive language contexts, audio can offer authentic voice input, and gestures can enhance understanding and memory through body language. Multimodal interaction not only increases student engagement and motivation but also promotes the internalization and application of language knowledge.

In English major teaching, multimodal interaction can be achieved in several ways. First, through multimedia presentations, teachers can organically combine text, images, audio, and video to vividly demonstrate language knowledge and cultural background. For instance, when teaching English pronunciation, teachers can use videos to show mouth shapes and articulation positions, combined with audio to play the correct pronunciation, helping students understand and imitate intuitively.

Secondly, multimodal interaction can provide immersive language learning experiences through virtual reality (VR) and augmented reality (AR) technologies. For example, using VR technology, students can immerse themselves in a real English language environment, engaging in situational dialogues and role-playing to improve their language application and cultural understanding abilities.^[2]

Additionally, multimodal interaction can achieve personalized and adaptive learning through online learning platforms and mobile learning applications. For example, intelligent learning systems allow students to choose suitable learning content and activities based on their progress and needs, receiving personalized feedback and guidance. Simultaneously, mobile learning applications enable students to study anytime and anywhere, utilizing fragmented time to enhance learning efficiency.

In conclusion, multimodal interaction is of great significance in English major teaching. By integrating various modalities and providing a multi-sensory learning experience, multimodal interaction not only increases student engagement and motivation but also promotes the internalization and application of language knowledge, enhancing students' comprehensive language abilities and cross-cultural communication skills.

3. Current Situation of Multimodal Classroom Interaction in English Majors

3.1 Current State of Classroom Interaction

Currently, there are some issues with classroom interaction in English major courses. Traditional teaching methods feature low frequency and quality of teacher-student and student-student interactions, with students passively receiving information and lacking opportunities for active participation. This teaching model often results in low student interest and inadequate practice in language application. Although some teachers attempt to introduce interactive teaching methods through discussions, Q&A sessions, and group cooperation to enhance classroom interaction, the lack of systematic guidance and effective resources leads to unsatisfactory interaction outcomes.

In many English classrooms, teachers remain the dominant figures, with students primarily learning through listening and taking notes. Interaction activities such as discussions and Q&A sessions are often

superficial, with low student engagement and shallow content lacking in-depth exchange. In such situations, students find it difficult to fully express their views and questions in class, and teachers struggle to understand students' learning conditions and needs in real time, limiting teaching effectiveness.^[3]

Furthermore, the student-teacher ratio and class size are critical factors affecting interaction quality. In large classes, teachers cannot attend to every student, making personalized guidance and feedback difficult to achieve. Student interaction is also limited, with fewer opportunities for group discussions and cooperative learning, which hampers the development of students' language practice and application skills.

3.2 Application of Multimodal Resources

The application of multimodal resources in English major teaching is increasingly common, yet practical challenges remain. Multimodal resources, including text, images, audio, video, and animations, offer rich learning materials and interactive experiences for students. However, teachers often lack systematic strategies and technical support in selecting and integrating multimodal resources, resulting in low utilization rates and effectiveness.

First, some teachers lack awareness of multimodal resources and cannot fully leverage their advantages. Many teachers are still accustomed to using traditional teaching resources, such as textbooks and lecture notes, lacking confidence and experience in using multimodal resources. Additionally, selecting and integrating multimodal resources requires technical skills and time investment, making comprehensive application difficult for many teachers in practice, thus limiting the potential benefits of multimodal resources.

Second, the effective application of multimodal resources is constrained by hardware equipment and technical support. In some schools, inadequate hardware and network infrastructure hinder the smooth use of multimodal resources in classrooms. Issues like unstable video playback and unreliable interactive software affect the application of multimodal resources. Moreover, some teachers lack technical support and training to address practical operational problems when using multimodal resources.

Lastly, students' acceptance and adaptability to multimodal resources vary. Differences in learning styles, technical familiarity, and autonomous learning abilities among students lead to varying reactions to multimodal resources. Some students may feel uncomfortable or resistant to using multimodal resources, which can negatively impact learning outcomes. Therefore, teachers need to continually adjust and optimize teaching strategies based on students' specific situations to ensure the effectiveness of multimodal resources.

In summary, although multimodal resources hold great potential in English major teaching, practical application faces many challenges. Teachers need to continually explore and improve in practice, systematically selecting and integrating multimodal resources to enhance the quality and effectiveness of classroom interaction. Simultaneously, schools and education departments should strengthen technical support and training for multimodal teaching, enhancing teachers' application abilities and promoting the comprehensive development of multimodal teaching.^[4]

4. Design and Implementation of Multimodal Classroom Interaction Strategies in English Majors

4.1 Principles for Designing Interaction Strategies

4.1.1 Teaching Goal-Oriented Principle

The teaching goal-oriented principle is the core of designing multimodal interaction strategies. This principle emphasizes that in the design and application of multimodal resources, teaching goals should always be the guiding factor, ensuring the effectiveness and relevance of teaching activities. In English major teaching, the goals usually include mastering language knowledge, improving language skills, and enhancing cultural understanding. Therefore, teachers must clarify the specific goals of each teaching segment and select corresponding multimodal resources to ensure the achievement of these goals.

Firstly, the teaching goal-oriented principle requires teachers to define specific goals for each teaching segment when designing multimodal interaction strategies. For example, when teaching grammar, teachers can combine text explanations, chart displays, and video demonstrations to help students understand and apply grammar rules. To improve listening and speaking skills, teachers can use audio

and video resources to provide authentic language input and situational dialogues, enhancing students' listening and speaking abilities.

Secondly, this principle also requires teachers to focus on the organic integration and coherence of resources, avoiding redundant and ineffective presentations. By systematically designing resources so that each modality supports and complements the others in achieving teaching goals, the overall effectiveness of the teaching can be enhanced.

4.1.2 Learner-Centered Principle

The learner-centered principle is an important guiding idea in designing multimodal interaction strategies. This principle emphasizes that the design and application of multimodal resources should fully consider students' needs, characteristics, and learning styles, providing a personalized and adaptive learning experience. Since students in English majors have diverse backgrounds and learning needs, the design of multimodal interaction strategies should reflect respect and attention to individual differences.^[5]

Firstly, the learner-centered principle requires teachers to conduct a detailed analysis of learning needs to understand students' interests, abilities, and learning goals. For example, collecting data on students' learning habits and preferences through questionnaires, interviews, and learning records can serve as a reference for designing multimodal resources. Teachers should offer diverse learning paths and resource options to meet different students' learning needs.

Secondly, this principle emphasizes the personalization and autonomy of the learning process. Multimodal interaction strategies should be flexible and adaptable, allowing students to choose and use resources according to their learning pace and progress. Additionally, personalized learning suggestions and feedback should be provided through intelligent recommendation systems, helping students to plan and adjust their learning, thereby improving learning outcomes. This personalized approach not only helps students master knowledge but also enhances their learning interest and confidence.

Moreover, the learner-centered principle requires teachers to pay attention to students' feedback and needs during the teaching process, promptly adjusting teaching strategies. This student-centered teaching model not only improves teaching effectiveness but also increases students' learning enthusiasm and participation.

4.1.3 Interactivity and Participation Principle

The principle of interactivity and participation is crucial in designing multimodal interaction strategies. This principle emphasizes that the design of multimodal resources should focus on interactivity and participation, enhancing students' sense of engagement and learning motivation through rich interactive designs. In English major teaching, interactivity and participation are particularly important for improving students' language application skills and learning enthusiasm.

Firstly, the interactivity principle requires multimodal teaching resources to be highly interactive, promoting communication and interaction between teachers and students, and among students themselves, through various interactive forms. For example, through interactive videos, online quizzes, and virtual experiments, students can engage in active knowledge construction and application under multi-sensory stimulation.

Secondly, the participation principle emphasizes enhancing students' sense of involvement and motivation through the design of multimodal resources. For instance, by creating contextual learning activities such as role-playing, situational dialogues, and simulated exercises, students can practice and apply language in real-life scenarios, boosting their language skills and confidence.

Additionally, gamified designs such as point systems and competition activities can stimulate students' interest in learning and sense of competition, making learning more enjoyable and challenging. Teachers can design various gamified learning tasks and activities, allowing students to learn and practice language skills in a relaxed and enjoyable atmosphere.^[6]

4.2 Implementation Steps for Multimodal Interaction Strategies

4.2.1 Classroom Preparation and Resource Integration

Classroom preparation is the foundation for implementing multimodal interaction strategies. Teachers should first clarify the teaching goals and select and integrate suitable multimodal resources according to different teaching segments. Multimodal resources can include texts, images, audio, video, and animations. Teachers should carefully select and design these resources based on the teaching content

and students' characteristics to ensure they effectively support the achievement of teaching goals.

During the resource integration process, teachers need to organically combine different modalities to form a complete teaching plan. Additionally, teachers should design specific interactive segments to promote active student participation in the classroom. These interactive segments can include group discussions, role-playing, simulated dialogues, and online quizzes, enhancing students' sense of involvement and motivation through various forms of interaction.

4.2.2 Classroom Implementation and Interaction Management

Classroom implementation is the core stage of multimodal interaction strategies. During classroom implementation, teachers should flexibly use multimodal resources to facilitate interaction between teachers and students and among students. Teachers can attract students' attention and stimulate their interest in learning by showing videos, playing audio, displaying images, and animations.

In terms of interaction management, teachers should act as guides and facilitators, actively encouraging students to participate in interactive segments. Teachers should also monitor and adjust the interaction process in real-time to ensure that every student has the opportunity to participate and express themselves.

Moreover, teachers should pay attention to the interaction atmosphere in the classroom, creating an open, equal, and cooperative learning environment. Through active interaction management, teachers can improve the quality of classroom interactions and enhance students' learning experience and outcomes.

4.2.3 Classroom Feedback and Evaluation

Classroom feedback and evaluation are critical components of implementing multimodal interaction strategies. Effective feedback and evaluation help teachers understand students' learning progress and outcomes, allowing for timely adjustments to teaching strategies to improve quality and effectiveness.

Firstly, teachers should collect students' learning data through the feedback mechanisms of multimodal resources. For example, using online quizzes, classroom Q&A, and assignment submissions to understand students' knowledge acquisition and learning outcomes. Teachers can also observe students' classroom performance, participation, and interaction quality to obtain direct feedback on their learning status.

Secondly, teachers should analyze and evaluate the collected learning data to identify problems and difficulties encountered by students in the learning process. Teachers can provide targeted solutions through individual tutoring, group discussions, and classroom summaries, offering specific learning suggestions and guidance.

Finally, teachers should adjust teaching strategies and methods based on feedback and evaluation results. For example, for common learning difficulties among students, teachers can adjust the difficulty and pace of teaching content, providing more exercises and guidance. For inadequate responses to certain multimodal resources, teachers can replace or adjust the resources, offering more adaptive learning materials.

5. Conclusion

This study explores the application of multimodal theory in classroom interactions for English majors, revealing the significant value of multimodal interaction in enhancing teaching effectiveness and student learning experiences. The research finds that the effective integration of multimodal resources and scientifically designed interaction strategies can significantly improve the quality and frequency of classroom interactions, boosting students' motivation and language proficiency. However, practical challenges remain, such as insufficient technical support, high resource development costs, and inadequate teacher training.

Future research should focus on several directions: firstly, further refining the theoretical foundation of multimodal interaction strategies by studying the synergistic effects and optimal integration of different modalities; secondly, strengthening practical research on multimodal interaction strategies through large-scale, long-term empirical studies to verify their effectiveness and optimize strategy design; lastly, exploring more diverse application scenarios for multimodal resources, promoting their widespread use in various educational fields, and increasing teacher training and support to enhance their ability and proficiency in using multimodal interaction strategies. Through continuous innovation and

improvement, multimodal interaction strategies will bring greater development and breakthroughs to English major teaching.

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