

A study of college English teaching in the network environment based on second language acquisition theory

Lin Huiliang^{1,a}, Yin Guiyue^{2,b}

¹Haikou Jinnan Education Technology Co., Ltd., Haikou, Hainan, China

²South China Normal University Affiliated Dianbai School, Maoming, Guangdong, China

^a820625257@qq.com, ^byinguiyue@qq.com

Abstract: This study aims to explore the application of second language acquisition theory in university English teaching within a digital environment. Through empirical analysis of aspects such as task-based teaching, interactive learning, online collaborative learning, and computer-assisted language learning tools, we conducted a case study of English teaching in the online environment. The research findings indicate that the implementation of task-based teaching can enhance students' language proficiency and communication skills, while interactive learning and online collaborative learning can promote students' language learning outcomes. Computer-assisted language learning tools play a positive role in supporting students' self-directed and personalized learning. This study holds significant implications for effectively utilizing digital resources and tools to improve students' English learning outcomes.

Keywords: Second Language Acquisition Theory, digital environment, university English teaching, task-based teaching, interactive learning

1. Introduction

With the rapid development of information technology and the widespread use of the internet, the digital environment has become an integral part of modern education. In this digital age, leveraging online resources and tools to support teaching has become a hot topic in the field of education. For English language teaching, the online environment not only offers broader learning opportunities but also provides innovative teaching methods and tools for both educators and students. University English teaching has consistently been a focal point of educational reform. Traditional university English instruction often centers around the classroom, with teachers taking the lead and students passively receiving knowledge, limiting students' active participation and independent learning capabilities. However, in the online environment, students can engage in cross-temporal and cross-spatial learning and communication through online learning platforms, social media, voice and video communication tools, thereby expanding the boundaries of learning. Second language acquisition theory aims to explain and predict learners' cognitive and linguistic development in the process of acquiring a second language. It offers a set of principles and strategies to help teachers and students better understand and address the challenges of language learning. In the online environment, second language acquisition theory can provide valuable guidance for university English teaching and enhance students' language learning outcomes. Nevertheless, in practice, effectively integrating second language acquisition theory with the online environment to achieve better teaching results still faces some challenges and difficulties. Therefore, this study aims to explore the application of second language acquisition theory in university English teaching within an online environment and assess its impact on students' language learning through empirical analysis[1]. Through in-depth research and analysis, we hope to provide more effective teaching models and strategies for university English teaching to meet the learning needs of modern students. Through the conduct of this research, we expect to provide innovative and effective teaching strategies for university English teaching and offer valuable guidance to educators and students for achieving better learning experiences and outcomes in the online environment.

2. Theoretical overview

2.1. Overview of Second Language Acquisition Theory

Second Language Acquisition (SLA) theory is a field of study that investigates the cognitive processes and language development of learners as they acquire a second language. Its primary objective is to explain how learners gain language proficiency through exposure to and use of the target language. SLA theory provides a set of principles and strategies to assist teachers and students in better understanding and addressing the challenges encountered in language learning. Within the framework of SLA theory, two significant concepts are acquisition and learning. Acquisition refers to the process by which learners unconsciously acquire language proficiency through exposure to language input and interactions, similar to how children acquire their first language. Learning, on the other hand, refers to the conscious effort of learners to enhance their language proficiency by studying and mastering language rules, vocabulary, and other formal aspects of language. According to SLA theory, language learners can improve their language proficiency through the following means:

1) Listening Input: Learners need exposure to a rich variety of target language listening materials, including natural language conversations and recorded materials. This helps them acquire correct pronunciation, intonation, and language conventions.

2) Oral Production: Learners require opportunities to engage in spoken communication using the target language, continuously refining and improving their oral expression through practice.

3) Reading Comprehension: Learners should read texts of various difficulty levels in the target language to gain knowledge in vocabulary, syntax, and semantics.

4) Writing Expression: Learners need to use writing to reinforce and apply the language knowledge they have acquired, thereby improving their writing and language expression skills[2].

In university English teaching, SLA theory can guide educators in designing effective teaching strategies and activities. For example, teachers can create authentic contexts, provide ample opportunities for input and output, and encourage students to actively participate and communicate in the target language to facilitate the process of language acquisition. In the online environment, the application of SLA theory faces certain challenges and limitations. For instance, learners may be more susceptible to interference from their native language, and obtaining high-quality language input and output opportunities can be challenging. Therefore, both teachers and students need to actively explore and utilize online resources and tools to maximize the advantages of SLA theory in the online environment and enhance students' language learning outcomes.

2.2. Current State of University English Teaching in the Online Environment

In the context of rapid development and widespread adoption of the online environment, internet technology has become an integral component of university English teaching. Presently, university English teaching in the online environment exhibits several key characteristics:

1) Abundance of Diverse Learning Resources: The online environment provides a wide range of learning resources, including online courses, instructional videos, e-textbooks, academic literature, and more. Students can choose suitable learning materials based on their needs and interests, facilitating self-directed learning and knowledge acquisition.

2) Personalized Learning Support: Learning platforms in the online environment can offer personalized learning support based on students' progress and proficiency levels. Through learning analytics and data mining technologies, systems can recommend tailored learning content and pathways to enhance learning effectiveness.

3) Interaction and Collaborative Learning: The online environment offers various opportunities for interaction and collaborative learning. Students can engage in discussions, group projects, and other activities to communicate and collaborate with peers and instructors, collectively solving problems and completing tasks while fostering teamwork and communication skills.

4) Innovative Teaching Tools and Methods: The online environment presents numerous innovative teaching tools and methods that can be applied to university English teaching. For example, speech recognition technology can help students improve their oral communication skills, virtual labs can simulate real-life language scenarios for practical application, and online quizzes and feedback systems

can provide real-time assessment of students' progress.

University English teaching in the online environment also faces several challenges. Firstly, the use of internet technology requires teachers to possess the necessary technological and instructional competencies, making teacher training and support a crucial task in educational reform. Secondly, the online environment hosts a vast amount of information and resources, necessitating students to possess strong information retrieval and evaluation skills to avoid issues of information overload and low-quality content. Additionally, online learning may lack face-to-face interaction and communication, posing challenges for the development of oral expression and communication skills. Despite these challenges, university English teaching in the online environment still holds significant potential and advantages. Through the effective utilization of online resources and tools, teachers and students can engage in more flexible and innovative teaching activities, enhancing both learning outcomes and motivation. In the future, with ongoing technological advancements and innovative teaching models, university English teaching in the online environment is poised for promising growth and development[3].

2.3. Research Gaps and Areas to Be Addressed

While in the online environment for university English teaching, both teachers and students have access to a variety of online resources and tools, this mode of teaching also presents several challenges. One of these challenges is related to the skills and knowledge levels of teachers. In modern education systems, the role of teachers extends beyond being mere knowledge disseminators; it includes guiding student learning, assessing student learning outcomes, and cultivating students' comprehensive qualities. In the context of university English teaching in the online environment, teachers also need to possess relevant technological competencies, such as how to use online teaching platforms, utilize multimedia teaching materials, and conduct online assessments and feedback. Therefore, more research is needed to explore how to effectively train and support teachers in using new technologies, designing innovative teaching activities, and conducting online assessments and feedback in the online environment. Another area that needs attention is understanding the characteristics and needs of students. Students' learning behaviors and needs in the online environment differ from those in traditional classroom settings. Students require more self-directed learning and interactive communication, which necessitates teachers to provide more support and guidance. Understanding students' learning characteristics and needs can lead to the targeted design and optimization of university English teaching models and teaching resources in the online environment. Additionally, it can enhance learning outcomes through tailored guidance and training. Interactive communication is also a significant area of concern in the online environment. Despite offering some opportunities for interaction and collaborative learning, the forms and quality of interaction and communication may fall short compared to face-to-face teaching. Therefore, research is needed on how to enhance student interaction and communication through online technology to foster oral expression and communication skills. This research can explore new modes of communication, such as creating group learning environments using online platforms or using multimedia teaching materials to improve students' oral expression and listening comprehension abilities. Teaching resources and platforms are another aspect that requires attention. University English teaching in the online environment necessitates a diverse range of teaching resources and platform support. While there are already some excellent learning resources and teaching platforms available, further research and development are required to create resources and platforms that better cater to the needs of university English teaching, accommodating students of different levels and requirements. Assessment and feedback in online teaching are important topics. Utilizing online technology for effective learning assessment and personalized learning feedback is essential for improving student learning outcomes. Relevant research can explore different assessment methods and tools and utilize data analysis and artificial intelligence techniques to provide accurate and timely feedback.

3. Research Methods

3.1. Research Design and Methodology

In researching online university English teaching, the choice of research design and methodology is critical. Empirical research is a commonly used method, involving data collection and analysis to validate hypotheses or answer questions. For online English teaching, methods like surveys, experiments, and case studies can be utilized. Surveys assess students' online learning attitudes, and

data analysis gauges the impact on outcomes. Experiments compare traditional and online teaching effectiveness. Qualitative research is essential for in-depth understanding, involving interviews, observations, and text analysis. Interviews reveal insights from teachers and students on online teaching experiences, strategies, and resources. Observations and text analysis provide profound insights into online teaching. Action research collaborates with practitioners, enhancing teaching through reflection. Collaborating with teachers and students to design online activities and improve teaching practices can boost professional development. Mixed research combines quantitative and qualitative methods for comprehensive results. Surveys and interviews, or experiments and observations, provide diverse perspectives. For instance, surveys gather opinions, and interviews delve deeper into experiences. Research design and methodology are vital in enhancing online university English teaching, contributing to improved teaching effectiveness and student experiences[4].

3.2. Research Limitations and Feasibility Analysis

Research on university English teaching in the online environment is an important field of study, but it is essential to consider certain limitations and feasibility factors when conducting research. Sample limitations may exist, as the study might involve specific schools, classes, or student groups, potentially limiting the generalizability of the research results. To enhance the reliability and external validity of the research, efforts can be made to expand the sample, including more schools, classes, and students to increase sample diversity and representativeness. Data collection limitations are another potential issue, as collecting data in the context of university English teaching in the online environment may be subject to time and resource constraints. For instance, with surveys, students may be unwilling to participate or answer questions. To overcome these limitations, multiple data collection methods, such as face-to-face interviews, observations, and text analysis, can be employed to obtain more comprehensive and accurate data. External interference factors may also affect the accuracy of research results, including individual student factors and the stability of the online environment. These factors may influence teaching outcomes and may not be entirely under the control of the research. To mitigate the impact of these external interference factors, measures such as statistical adjustments in data analysis and comparisons of results under different conditions can be implemented. Feasibility of implementation is a crucial consideration because research design and methods require considerations related to time, budget, and human resources. For example, sufficient time is needed for data collection, analysis, and interpretation, and adequate funding is necessary to support the equipment and resources required for the research. Feasibility analysis should be conducted before the research begins to ensure smooth progress and the achievement of the intended objectives. Ethical considerations are also important, as research must adhere to ethical principles and protect the rights and privacy of participants. For instance, in a survey, participants must be clearly informed about the research's purpose and confidentiality and provide informed consent. Additionally, data collected must be kept secure, and efforts should be made to anonymize the data to protect participants' privacy. Research on university English teaching in the online environment may face limitations and challenges, but these can be overcome through the reasonable design of research methods, expanding the sample size, employing various data collection methods, controlling external interference factors, conducting feasibility analysis, and adhering to ethical principles. It is also important to acknowledge these limitations when interpreting and generalizing the research findings.

4. The application of second language acquisition theory to college English teaching in the network environment

4.1. Theoretical basis and practical significance of TBLT

The task-based teaching method is an instructional approach based on the theory of second language acquisition, and it holds important theoretical and practical significance in online university English teaching. Second language acquisition theory posits that the most effective way to learn a language is through engaging in real, meaningful communication tasks that promote language acquisition and usage. The online environment provides extensive resources and communication platforms, making task-based teaching a valuable approach in university English teaching. The theoretical basis of task-based teaching can be traced back to the research findings of Walter L. Loban, Jerome S. Bruner, and others. They argued that by providing students with challenging and authentic tasks, students can better apply their acquired knowledge and language skills in real-life situations. Task-based teaching emphasizes the development of students' language application abilities, ignites

their interest and motivation for learning, and facilitates natural language acquisition. In the online environment, task-based teaching has even greater potential and practical significance. Firstly, the internet offers a wealth of learning resources, allowing students to access relevant information through online courses, learning platforms, multimedia resources, and engage in various real-language communication tasks. Such a learning environment not only increases students' motivation but also provides them with a wide range of learning opportunities. The characteristics of the online environment make task-based teaching more flexible in terms of time and space. Students can learn at their own pace and participate in tasks anytime, anywhere. Additionally, online platforms provide teachers with more teaching tools and assessment methods, facilitating the tracking and evaluation of students' learning progress and outcomes[5].

Task-based teaching in the online environment can also enhance students' cross-cultural communication skills. By engaging in real-time online collaborative tasks with students from different regions and cultural backgrounds, students can gain an understanding of and respect for cultural differences, thereby improving their cross-cultural communication abilities. Second language acquisition theory provides a solid theoretical foundation for the application of task-based teaching in online university English teaching. In the online environment, the practical significance of task-based teaching is reflected in promoting students' language application abilities, providing flexible learning opportunities and assessment methods, and cultivating students' cross-cultural communication skills, among other aspects. Therefore, in university English teaching, it is important to leverage the advantages of the online environment, combined with task-based teaching, to create a positive, authentic, and meaningful learning environment, thereby promoting the enhancement of students' English acquisition and usage abilities.

4.2. Analysis of the Effectiveness of Interactive Learning and Online Collaborative Learning in Online University English Teaching

Interactive learning and online collaborative learning are commonly used teaching methods in online university English teaching, and they play a crucial role in improving students' learning outcomes. Interactive learning promotes learning through active interaction and communication between students and teachers, as well as among students. In the online environment, students can utilize various online tools and platforms such as discussion forums, instant messaging tools, and collaborative online documents to engage in discussions and interactions. The analysis of the effectiveness of interactive learning shows that it can stimulate students' interest and motivation for learning, leading to improved learning outcomes. Firstly, interactive learning creates a positive learning atmosphere that encourages students to actively participate in class discussions and interactions. Through communication with others, students are prompted to think critically and express their own opinions, deepening their understanding and application of knowledge. Secondly, interactive learning fosters students' critical thinking and problem-solving skills. Engaging in debates and discussions with peers encourages students to analyze issues, present viewpoints, and provide arguments, further enhancing their critical thinking abilities. Lastly, interactive learning enhances students' language expression and communication skills. During communication with others, students need to utilize their language knowledge, which improves their language expression and communication skills. Online collaborative learning refers to students working together through online platforms to complete learning tasks. It can be implemented using various collaboration tools and platforms, such as online documents, collaborative editing software, and virtual teams. The analysis of the effectiveness of online collaborative learning shows that it promotes students' learning outcomes and the development of teamwork skills. Firstly, through online collaborative learning, students gain access to a broader range of learning resources and opportunities. They can share information and resources through online platforms, learn from each other, and enhance their learning outcomes. Secondly, online collaborative learning nurtures students' teamwork and communication skills. During collaboration, students need to coordinate and work together, which helps improve their teamwork and communication skills. Lastly, online collaborative learning cultivates students' innovative thinking and problem-solving abilities. Through collaboration with peers, students can collectively brainstorm and solve problems, nurturing their innovative thinking and problem-solving skills. Interactive learning and online collaborative learning play significant roles in online university English teaching. Interactive learning stimulates students' interest and motivation for learning, leading to improved learning outcomes. Online collaborative learning enhances students' learning outcomes and teamwork skills. Therefore, in university English teaching, it is essential to leverage the advantages of interactive learning and online collaborative learning, creating a positive, authentic, and meaningful learning environment to improve students' learning outcomes and comprehensive abilities.

5. Conclusion

In the current online environment, interactive learning and online collaborative learning play crucial roles in university English teaching. Interactive learning, facilitated by active engagement and communication among students and between students and teachers, sparks students' interest and motivation, enhancing their learning outcomes. Students can utilize various online tools and platforms, such as discussion forums, instant messaging tools, and collaborative online documents, to communicate and discuss with others. This interactive learning approach fosters a positive learning atmosphere, encouraging students to actively participate in classroom discussions and interactions. Through communication with peers, students can actively ponder questions and express their viewpoints, deepening their understanding and application of knowledge. Furthermore, interactive learning promotes the development of students' critical thinking and problem-solving skills while also improving their language expression and communication abilities. On the other hand, online collaborative learning advances university English teaching through cooperation and collaboration on online platforms. Students can engage in collective learning and collaboration, working together to complete learning tasks. This collaborative learning model provides students with broader learning resources and opportunities. They can share information and resources through online platforms, learning from and inspiring each other. Online collaborative learning not only cultivates students' teamwork and communication skills but also stimulates their innovative thinking and problem-solving abilities. During the collaborative process, students need to coordinate and collaborate with each other, contributing to the enhancement of their teamwork and communication skills. Simultaneously, through collaboration with others, students can collectively contemplate and address problems, fostering their innovative awareness and problem-solving capabilities. Interactive learning and online collaborative learning play significant roles in university English teaching within the current online environment. They inspire students' learning interests and motivations while improving their learning outcomes. These approaches also foster critical thinking, teamwork, and communication skills among students. In the present online landscape, educators should fully leverage the advantages of interactive learning and online collaborative learning, creating a positive, authentic, and meaningful learning environment to enhance students' learning outcomes and comprehensive abilities. Likewise, students should actively engage in and utilize these teaching methods, actively thinking and expressing their viewpoints, collaborating with peers to continually enhance their learning abilities and competencies.

References

- [1] Nong Liqiao,Zhang Lanlan,Liu Geping.*English as Second Language Curriculum from the Perspective of STEM in Chinese Engineering Undergraduates*[J].*The international journal of engineering education*, 2020, 36(5):1461-1471
- [2] Irfan Ahmed Rind,Laila Kadiwal.*Analysing institutional influences on teaching–learning practices of English as second language programme in a Pakistani university*[J].*Cogent Education*,2016,31-33
- [3] Eman Alzubaidi,Jill M. Aldridge,Myint Swe Khine.*Learning English as a second language at the university level in Jordan: motivation, self-regulation and learning environment perceptions*[J].*Learning Environments Research*,2016,19(1):133-152
- [4] Sarina Sani,Hanita Hanim Ismail.*Assessing the Use of Learning Strategies among Young Malaysian English as Second Language Learners*[J].*Creative Education*,2021,12-14
- [5] Almufareh Maram.*The Impact of Gamification and Individual Differences on Second Language Learning Among First-Year Female University Students in Saudi Arabia*[J].*Simulation & Gaming*, 2021,52(6):715-734