Journal of International Education and Development
2026, VOL. 10, NO. 2, 113-116
DOI: 10.47297/wspiedWSP2516-250023.20261002

In-depth Integration Paths of Information Technology and English Teaching from the Perspective of Blended Learning

Nan Jiang

Department of Language and Culture, Shanghai University of Political Science and Law, Shanghai, 201100, China

ABSTRACT
Against the global digital transformation of education and the popularization of blended learning, the in-depth integration of information technology and English teaching has become a core driver for breaking traditional teaching bottlenecks and improving teaching quality. Based on constructivist learning theory, connectivism, and the Technology Acceptance Model (TAM), this study combines blended learning's core feature of "online autonomous inquiry and offline interactive collaboration" to deconstruct key integration dimensions and construct a four-in-one path: digital resource integration, teaching process reconstruction, evaluation system optimization, and targeted competence development. Through a comprehensive literature review and practical case analysis, it clarifies implementation key points and proposes safeguard strategies from technological adaptability, teaching logic alignment, and teacher-student competence matching. This research offers a systematic digital integration plan for language teaching in the Chinese context, providing a theoretically and practically valuable reference for global blended English teaching reform and promoting the leap from "technology application" to "in-depth integration."

KEYWORDS
Blended learning; Information technology; English teaching; In-depth integration; Path construction

1 Introduction

Digital technology's rapid development has propelled global education into the "blended learning" era, which breaks traditional classrooms' temporal and spatial limitations by integrating online flexibility and offline interactivity, becoming the mainstream of higher education reform (Garrison & Vaughan, 2008). As a global lingua franca, English teaching has shifted from mere knowledge transmission to cultivating cross-cultural communication, autonomous learning, and critical thinking—yet traditional drawbacks (e.g., "valuing theory over practice") and blended teaching problems (e.g., "technology-teaching disconnection") hinder quality improvement.

Driven by global educational digitalization, China's Ministry of Education emphasizes facilitating the in-depth integration of information technology and teaching. As a core higher education course, English teaching urgently needs an adaptive integration model. However, existing domestic and foreign research focuses on single technical tools or partial link optimization, lacking systematic "in-depth integration" path design and full-process guidance—with a noticeable gap in non-English-speaking contexts. Thus, constructing a scientific, operable in-depth integration path has become a key research topic in English teaching.

From an interdisciplinary theoretical perspective, this study constructs a framework for the in-depth integration of information technology and English teaching, clarifies its core dimensions and logic, enriches blended learning theory's application in language teaching, and addresses the "technology-over-teaching" deficiency in existing research.

2 Theoretical Foundations and Core Dimensions of the Research

Constructivism holds that learning is a process in which learners actively construct the meaning of knowledge through participation and interactive collaboration (Piaget, 1970). From the perspective of blended learning, information technology provides an ideal carrier for constructivist learning: online platforms support students' autonomous inquiry, resource sharing, and collaborative communication, while offline classrooms achieve in-depth interaction through teacher guidance and group discussions. The combination of the two can promote students' active construction of language knowledge and communication competence.

Proposed by Siemens (2005), connectivism emphasizes that "learning is a process of establishing network connections, " arguing that knowledge exists in network nodes, and learners acquire and create knowledge by connecting these nodes. Information technology provides abundant online learning resources for English teaching (e. g., academic databases, language learning communities, cross-cultural communication platforms), helping students build diversified language learning networks and realize the dynamic update of knowledge and cross-cultural interaction.

The Technology Acceptance Model emphasizes that users' acceptance of technology depends on perceived usefulness (believing that technology can improve learning outcomes) and perceived ease of use (believing that technology is easy to operate). In the design of integration paths, this study focuses on selecting technical tools with strong practicality and simple operation, and improves students' perceived usefulness and ease of use through training and guidance, thereby promoting the in-depth integration of technology and teaching.

Based on the above theories, this study proposes four core dimensions of the in-depth integration of information

technology and English teaching:

(1) Resource Dimension: The transformation from "single textbooks" to "diversified digital resources," with the core of realizing the digitization, intelligence, and diversification of teaching resources to meet students' personalized learning needs;

(2) Process Dimension: Reconstructing the teaching process of "online autonomous learning-offline interactive deepening-online-offline collaborative consolidation," realizing the closed-loop linkage of pre-class, in-class, and post-class stages, and improving the pertinence and effectiveness of teaching;

(3) Evaluation Dimension: Shifting from "single result-oriented evaluation" to a diversified evaluation system combining "process-oriented evaluation and result-oriented evaluation," integrating technical means such as big data analysis and intelligent evaluation to achieve the objectivity, accuracy, and comprehensiveness of evaluation;

(4) Competence Dimension: Focusing on the comprehensive improvement of students' comprehensive English application ability, autonomous learning ability, cross-cultural communication ability, and critical thinking ability, realizing the transformation from "knowledge transmission" to "competence cultivation."

Resource integration is the foundation of in-depth integration, with the core of breaking the limitations of traditional textbooks and constructing a three-dimensional digital resource system of "basic resources-interactive resources-cross-cultural resources" to support blended English teaching.

Integrate high-quality global cross-cultural resources to build authentic scenarios for language application. First, introduce authoritative foreign language learning resources, such as BBC Learning English, TED Talks, and VOA Special English, to enrich students' listening and reading materials; second, build a cross-cultural communication platform to carry out online joint classes and cross-cultural theme discussions with foreign universities, allowing students to improve their communication competence in real cross-cultural interactions; third, collect materials related to global hot topics, cultural customs, and workplace scenarios, and transform them into English teaching cases to help students understand the rules of language application in different cultural contexts.

Teachers release preview tasks through learning platforms, including watching microlectures, reading digital textbooks, completing basic practice questions, and consulting cross-cultural materials, and set up a preview feedback module for students to submit learning doubts and difficulties. Using the big data analysis function of the learning platform, collect students' preview data, including resource viewing duration, practice question accuracy, and key words of doubts, to accurately identify students' knowledge gaps and learning needs. For example, if data analysis shows that most students have poor mastery of the "subjunctive mood" knowledge point, teachers can focus on explaining this content in class; if students are highly interested in a certain cross-cultural theme, the class discussion time can be appropriately extended. Meanwhile, teachers adjust teaching plans and in-class activity designs according to students' preview conditions to ensure the pertinence of in-class teaching.

Improve students' listening, speaking, reading, writing, and translation abilities through the combination of "online specialized training + offline comprehensive application." For listening, push diversified listening materials through online platforms, combined with intensive listening and extensive listening training and intelligent feedback; for speaking, carry out personalized practice through intelligent speech evaluation systems, and improve practical ability through offline situational simulations and speech contests; for reading, recommend personalized reading materials and help students sort out article logic using online annotation tools and mind mapping tools; for writing, provide real-time feedback with intelligent writing correction systems and organize online and offline writing workshops to improve writing quality; for translation, cultivate students' translation skills and cultural adaptability through digital translation tools and case analysis.

Foster students' autonomous learning ability through "task-driven + strategy guidance." First, design hierarchical autonomous learning tasks, allowing students to choose suitable tasks based on their own level, with clear learning objectives and time nodes; second, provide learning strategy guidance, including skills in time management, resource retrieval, and problem-solving, to help students master autonomous learning methods; third, establish an autonomous learning incentive mechanism to stimulate students' awareness of independent learning and cultivate lifelong learning ability through points rewards and achievement displays.

Enhance students' cross-cultural communication ability through "resource immersion + practical experience." First, use diversified cross-cultural resources to help students understand the cultural customs, values, and language taboos of different countries; second, carry out cross-cultural practical activities, such as online cross-cultural theme discussions, joint project research with foreign students, and simulated cross-cultural business negotiations, allowing students to improve their communication ability in real cross-cultural interactions; third, guide students to conduct cross-cultural reflection, analyze the differences between their own culture and the target culture, and cultivate cultural tolerance and adaptability.

Develop students' critical thinking ability through "problem-oriented + collaborative inquiry." First, design open-ended questions, debate topics, and inquiry-based tasks to guide students in in-depth thinking; second, organize group collaborative inquiry activities, allowing students to discuss, analyze, and argue around complex issues to form their own viewpoints; third, encourage students to critically evaluate learning resources and others' viewpoints, fostering

independent thinking and logical reasoning abilities.

3 Implementation Guarantee Strategies for the In-depth Integration Path

The adaptability of technical tools is a prerequisite for in-depth integration. First, select appropriate technical tools according to teaching objectives and content, prioritizing tools that are easy to operate, stable in function, and strong in practicality, avoiding blind pursuit of "high-tech" technologies; second, optimize the technical application environment, ensuring smooth network and stable platforms to provide good technical support for teachers and students; third, strengthen technical training, conducting special training on the integration of information technology and teaching for teachers, including the development of digital resources, the application of intelligent tools, and the design of blended teaching, to improve teachers' practical integration ability; carry out training on the use of learning platforms and tools for students to help them quickly adapt to the digital learning model. Meanwhile, establish a technical support and feedback mechanism to promptly solve problems encountered by teachers and students in the process of technical application, ensuring the smooth implementation of the integration path.

The core of in-depth integration is "teaching-centered," rather than simple technical superposition. First, adhere to the essential objectives of English teaching, with all technical applications and path designs centered on core goals such as language competence cultivation and cross-cultural communication ability improvement, avoiding "technology for technology's sake"; second, optimize teaching design to ensure close connection and logical coherence between online and offline teaching content, achieving a synergistic effect of "1+1>2"; third, focus on students' learning experience, with teaching design fully considering students' cognitive rules, learning styles, and basic levels, and adopting hierarchical teaching and personalized task design to meet the learning needs of different students. In addition, teachers need to continuously optimize teaching methods, deeply integrating technical tools with teaching methods, such as combining flipped classrooms and project-based learning with digital resources and intelligent tools to improve teaching effectiveness.

Teachers' and students' abilities are key supports for in-depth integration. On the one hand, improve teachers' integration literacy: first, strengthen the cultivation of teachers' English professional competence and educational teaching ability, ensuring that teachers have solid language knowledge and advanced teaching concepts; second, carry out special training on the integration of information technology and teaching, including content such as digital resource development, intelligent tool application, and blended teaching design, to improve teachers' practical integration ability; third, establish a teacher communication and collaboration mechanism, encouraging teachers to share integrated teaching experience, conduct collective lesson preparation and teaching research, and promote common growth. On the other hand, improve students' digital literacy: first, integrate digital literacy cultivation into the English teaching process, teaching students to reasonably use digital learning resources, efficiently utilize intelligent tools, and conduct standardized online communication; second, carry out special training on digital literacy, including content such as information retrieval and screening, and network security and ethics, to help students establish correct digital learning concepts; third, exercise students' digital application ability through practical tasks, such as letting students complete English project reports and make English presentations using digital tools.

4 Analysis of Practical Cases

To verify the feasibility and effectiveness of the integration path, this study selects an English course for non-English major undergraduates at a university as a practical case, adopting the above four-in-one in-depth integration path for teaching practice with a cycle of 16 weeks. The specific implementation is as follows:

This course is offered to 45 undergraduates majoring in Computer Science at a university in 2023. The average English score of the students upon admission is 65.2 points, with an overall medium English foundation, and problems such as weak listening and speaking abilities and insufficient autonomous learning awareness. The course adopts "New Horizon College English (3rd Edition)" as the core textbook, combined with Chaoxing Xuexitong as the online learning platform, and introduces technical tools such as iFLYTEK Oral English Evaluation System and intelligent writing correction tools to construct a three-dimensional digital resource system.

Digital transformation of basic resources: 32 microlectures (5-8 minutes each) are created for textbook texts and grammar knowledge points, uploaded to Chaoxing Xuexitong, along with e-textbooks and knowledge point sorting documents for students' pre-class preview.

Intelligent upgrade of interactive resources: The iFLYTEK Oral English Evaluation System is introduced, with one oral practice task set per week. After completion, students can obtain real-time feedback on pronunciation, fluency, and other dimensions; an adaptive question bank containing more than 1, 000 practice questions is built to automatically recommend personalized practice based on students' answer conditions.

Expansion of cross-cultural resources: Workplace English materials from BBC Learning English, technology-themed TED talks, and cross-cultural cooperation cases of Chinese and foreign enterprises are integrated as materials for in-class discussions and practical activities.

Pre-class stage: Teachers release preview tasks through Chaoxing Xuexitong, such as watching microlectures,

completing basic practice questions, and consulting cross-cultural cases, and students submit preview doubts. Through platform data analysis, teachers find that students have many questions about the "non-finite verb" grammar point and "cross-cultural business communication etiquette," and adjust the key points of in-class teaching accordingly;

In-class stage: 20 minutes of intensive lectures are conducted on grammar difficulties, analyzing the usage of non-finite verbs with examples; around the theme of cross-cultural business communication, students are organized to carry out a "business negotiation situational simulation" activity. Students are divided into 6 groups, each playing the role of enterprise representatives from different cultural backgrounds. Multimedia equipment is used to display negotiation scenarios, and teachers provide on-site guidance and comments;

Post-class stage: Students complete personalized practice questions and submit English writing assignments through Chaoxing Xuexitong (obtaining feedback using intelligent writing correction tools), and participate in online discussions on "cross-cultural communication skills" in the discussion forum; teachers track students' learning data through the platform and provide one-on-one online counseling for 3 students with slow learning progress.

After the practice, the effect is evaluated through comprehensive English proficiency tests, student satisfaction surveys, and teacher reflection interviews:

(1) Comprehensive English proficiency test: The average score of students increased from 65.2 points to 78.5 points, with an increase of 20.4%. Among them, listening and speaking scores improved the most significantly (25.3% and 23.7% respectively);

(2) Student satisfaction survey: 45 questionnaires were distributed and 45 valid ones were recovered. The student satisfaction with the integrated teaching model reached 91.1%, 87.8% of students believed that "intelligent tools can effectively improve learning outcomes," and 84.4% of students indicated that "class participation has significantly increased";

(3) Teacher reflection interview: Teachers stated that "big data analysis can accurately identify student needs, significantly improving teaching pertinence" and "intelligent tools reduce the workload of assignment correction, allowing more energy to be invested in teaching design and interactive guidance."

The case practice shows that the four-in-one in-depth integration path is highly operable, which can effectively improve the quality of English teaching and students' comprehensive abilities, providing a feasible practical example for the in-depth integration of information technology and English teaching from the perspective of blended learning.

5 Conclusion

Based on constructivist learning theory, connectivism, and the Technology Acceptance Model, this study systematically constructs a four-in-one path for the in-depth integration of information technology and English teaching from the perspective of blended learning, including four core dimensions: digital resource integration, teaching process reconstruction, evaluation system optimization, and targeted competence cultivation. The feasibility and effectiveness of the path are verified through practical cases. The research results show that this integration path can effectively break through the limitations of traditional teaching, improve the pertinence, effectiveness, and interest of English teaching, and promote the comprehensive improvement of students' comprehensive English application ability, autonomous learning ability, cross-cultural communication ability, and critical thinking ability.

This study not only enriches the connotation of blended learning theory and language teaching integration theory but also provides a new theoretical framework and practical path for the in-depth integration of information technology and education and teaching. It also provides an operable plan for the digital reform of English teaching in the Chinese context and offers useful reference for language teaching reform in non-English-speaking countries around the world. With the continuous development of digital technology, the in-depth integration of information technology and English teaching will become an inevitable trend in language teaching reform. In the future, it is necessary to further strengthen theoretical innovation and practical exploration, continuously optimize the integration path, and promote the continuous improvement of language teaching quality and the transformation and upgrading of talent training models.

References

[1] Chen Y., Wang L., & Liu H. (2020). The impact of intelligent speech evaluation system on college students' oral English proficiency. Computer Assisted Language Learning, 33(7-8), 765-783.

[2] Davis F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.

[3] Garcia-Carbonell A., Gil-Sarratea R., & Van den Branden K. (2021). Personalized learning paths in blended English reading instruction: A data-driven approach. Language Learning & Technology, 25(2), 89-108.

[4] Garrison D. R., & Vaughan N. D. (2008). Blended learning in higher education: Framework, principles, and guidelines. Jossey-Bass.

[5] Piaget J. (1970). Genetic epistemology. Columbia University Press.

[6] Siemens G. (2005). Connectivism: A learning theory for the digital age. International Journal of Instructional Technology and Distance Learning, 2(1), 3-10.