Research on a Cross-border E-commerce Live Streaming Competency Cultivation Model for Business English Teaching

Wanling Guo*

Foreign Language College Hanshan Normal University, Chaozhou, 521041, China
**Corresponding author: 20210023@hstc.edu.cn*

Abstract: *The rapid development of digital trade has imposed new requirements for interdisciplinary and compound competencies among Business English talents in China. Grounded in the theoretical framework of "Digital Intelligence Empowerment" and integrated with the industry-education integration mechanism, this study constructs a three-dimensional cross-border e-commerce live streaming competency cultivation model that fuses "Language + Industry + Technology." Through a progressive teaching closed-loop of "Practical Training, Practical Operation, and Practical Effectiveness," and leveraging school-enterprise co-built platforms and multimodal resource databases, the model systematically enhances students' intercultural communication skills, digital operation capabilities, and innovative practical abilities. Practice has demonstrated that this model significantly improves the alignment between talent cultivation and industry demands, providing a replicable pathway for the reform of applied foreign language majors and the construction of New Liberal Arts.*

Keywords: *Cross-border E-commerce Live Streaming; Digital Intelligence Empowerment; Competency Cultivation Model; Business English Teaching*

1. Introduction

With the rapid advancement of globalization and digitalization, "digital trade development" has become the core direction for upgrading modern foreign trade industries. In this context, cross-border e-commerce live streaming — as a key platform for international trade — urgently requires versatile professionals equipped with language proficiency, digital skills, and cultural communication literacy.

However, traditional Business English education faces structural challenges including marginalized practical components, disconnection from industry evolution, and insufficient integration of digital-intelligent technologies (Wang Lifei & Cui Can, 2020). To address these issues, this study utilizes the Business English program at our institution as a practical base and carried on the research on Digital-Intelligent Empowered Training Model for Cross-border E-commerce Live Streaming Competencies in Business English. Our objective is to explore a digitally-enhanced training framework for cross-border e-commerce live streaming capabilities. Through theoretical innovation and practical exploration, we aim to achieve precise alignment between talent supply and industry demands, while providing empirical references for applied foreign language education reform and new liberal arts development initiatives.

This study is set in the Business English Department of an University, with the basis of industry-academia-research collaboration platforms, local university-enterprise partnerships, extensive preliminary explorations and practical implementations over the past three years. These efforts have yielded substantial outcomes spanning curriculum system development, joint university-industry platform construction, multimodal teaching resource repository development, student competition guidance, and innovation/entrepreneurship project incubation. This paper provides a systematic summary and theoretical refinement of the model's construction logic, implementation pathways, and initial achievements.

2. Concept and Framework

In the process of digital intelligence-empowered cultivation of cross-border E-commerce live

streaming competencies, it is necessary to clear the core concepts and the theoretical framwork about it.

2.1 Core Concept: Data-Driven and Precision Education

The "Digital Intelligence Empowerment" educational paradigm is centered on data-driven decision-making, intelligent collaboration, personalized cultivation, and a closed-loop lifelong learning system (Zhu Zhitin et al., 2024; Shen Shusheng, 2024). In this study, this concept is specifically manifested in three aspects:

a: Data-driven decision-making: Utilizing real-time data from cross-border e-commerce platforms like AliExpress and TikTok to track user behavior and optimize live streaming scripts and strategies. AI tools are employed for personalized script generation and customer profiling analysis, enabling dynamic adjustments to instructional content based on market trends. For instance, in the "Big Data-Assisted E-commerce Live Streaming Training" project, the team conducted in-depth analysis of AliExpress Direct Train promotion data — including impressions, click-through rates, add-to-cart/favorite rates, and conversion costs—to accurately evaluate product link performance. This enabled students to refine SKU configurations, pricing strategies, and keyword placements, marking a shift from experience-based decision-making to data-driven strategies.

b: Process-oriented Evaluation: Establishing an assessment system based on learning behavior data. By recording multi-dimensional indicators such as students 'operational data on simulation platforms, question-answering frequency during live interactions, conversion rates in real projects, and customer complaint resolution timelines, this approach quantifies students' competency growth trajectories while overcoming the limitations of traditional summative evaluation. The project incorporates a detailed "Live Streaming Record Template", requiring documentation of core metrics including viewership numbers, like counts, interaction frequency, and TM inquiry volumes per live session, which serve as critical benchmarks for student performance evaluation.

c: Precision Intervention: Identifies students' competency gaps through data analysis and provides tailored training resources and instructional strategies. For instance, students with weak cross-cultural communication skills receive scenario-based training using the "Cross-border E-commerce Live Streaming Script Database" (Supporting Material 1), which includes scenario-specific scripts (e.g., English live streaming scripts for Chaozhou hand-pulled teapots and anime IP collectibles). Students with insufficient data analysis skills undergo specialized training through the "International Market Research Process" module.

2.2 Three-dimensional Integration Structure: Platform - Module - Scenario

This study constructs a three-dimensional teaching space supported by a platform, implemented by modules, and linked by scenarios.

a: Platform Layer: Built upon the jointly established "Cross-border E-commerce Live Streaming Training Platform" and "Intercultural E-commerce Live Streaming Training Platform" through university-industry collaboration. The platform integrates mainstream live streaming backend data interfaces and AI-powered operational tools, enabling end-to-end simulation exercises covering market research, product selection and launch, marketing promotion, and after-sales services. Beyond providing technical infrastructure, it drives instructional iteration through data feedback mechanisms. For instance, the platform incorporates product databases from local industries (ceramics, garment, crafts), foreign trade terminology repositories, and intercultural corpus resources, delivering authentic teaching materials for the "English for Local Industrial Characteristics" course.

b: Module Layer: A tiered curriculum module system has been designed, covering the competency spectrum from fundamental operations to innovative planning capabilities, reflecting a spiral progression path of "knowledge-skill-competence" (see Table1). The curriculum framework is divided into three levels (beginner, intermediate, advanced) and closely aligns with the closed-loop approach of "practical training-real-world application-practical outcomes".

Table 1: Curriculum Framework for Cross-border E-commerce Live Streaming Competency Development

Course Level	Course Level	Core Modules	Competency Objectives	Outcome
Primary Level	Practical Course in Cross-border E-commerce	Platform Operation, International Market Research; Fundamentals of E-commerce Operations	Mastering Live Streaming Backend Knowledge and Basic Operational Skills	Platform Operational Tasks Completed
Intermediate Level	English for Local Industry Characteristics	Data-driven product presentation, English scriptwriting, simulated live streaming exercises	Enhance foreign language communication and promotion capabilities for local industries	Module Work Presentation
Advanced Level	Industrial Innovation English	Live Data Analysis, Creative Live Streaming Operations, and Brand Overseas Expansion Planning	Live Data Analysis, Creative Live Streaming Operations, and Brand Overseas Expansion Planning	Innovation Project Scheme in Scenarios

c: Scenario Layer: By introducing authentic learning scenarios centered on industrial problem-solving, the program creates immersive teaching environments. The project deeply integrates local Chaoshan industrial resources—including Chaozhou hand-pulled clay teapots, Chaozhou wood carvings, and toy and craft IPs—to design practical initiatives such as the "Xiangqiao (a local area) Night Talks" intangible cultural heritage promotion, TikTok brand overseas live-streaming campaigns, and cross-border e-commerce innovation competitions. These scenarios compel students to internalize skills through real-world problem-solving, achieving seamless integration of theory and practice. For instance, students must draft English live-stream scripts for the "Dunhuang Flying Apsaras Teapot" while delivering multimodal presentations incorporating Dunhuang cultural narratives.

3. Teaching Implementation and Innovation Pathways

3.1 Industry-Education Integration: "Training- Operation- Effectiveness" Closed-Loop

Based on situational learning theory, teaching should emphasize "legitimate marginal participation" by activating students' prior knowledge through simulated real-world tasks (Lavenger, 1991). This study integrates corporate resources and establishes a relatively comprehensive three-stage closed-loop system through industry-academia-research collaboration.

a: Training Stage: Conduct AI simulation exercises on cross-border e-commerce live streaming platforms. Students will develop multilingual live streaming scripts for products like "Chaozhou Hand-Pulled Teapots" and "Yuedong Toy IPs," optimizing script structures using big data tools. This phase focuses on mastering standardized processes and tools, including B2B/B2C workflows and market research methodologies defined in the "Cross-border E-commerce Live Streaming Comprehensive Skills Framework" (see case 3-1).

Case 3-1: Live Streaming Script for Hand-Pulled Teapot Products (English-Chinese Bilingual Version)

————————————————

Product: Chaoshan Hand-Pulled Vermicelli Pot (Master Series by Intangible Cultural Heritage Masters Zhang Yanming and Zhang Haiyuan)

Platforms: TikTok Shop / Amazon Live (English host with Chinese co-host)

Duration: 45-60 min

Rhythm: Explain one pot every 5-6 minutes, interspersed with lotteries, link sharing, and Q&A sessions

Live Streaming Theme: Oriental Aesthetics + Practical Tea Ware + Collectible Stories + Limited-Time Benefits

———————————————

Opening warm-up Host

Host:

“Hey global tea lovers! Tonight we're taking you to Chaozhou, China—the birthplace of the world's most delicate hand-pulled teapot. If you love Kung-Fu tea, art, or anything that levels-up your tea ritual, stay with us for the next hour. We have only 200 pieces in total—once they're gone, they're gone!”

Co-host (Chinese bullet comments flooding the screen):

“Dear family members, master artisans of intangible cultural heritage have prepared handmade hand-pulled teapots! These globally limited-edition pieces are available with exclusive discounts tonight in our live stream! ”

———————————————

Name of Teapot Work: Dunhuang Flying Apsaras Pot

Viewing Angle: 360° close-up of the teapot body featuring celestial motifs, with UV lighting highlighting its dual-colored clay anchor:

Host:

“First star of tonight—Dunhuang Flying Apsara. Look at the dual-color clay swirling like desert silk. Every line is pressed by hand, no molds. It's not just a teapot, it's a portable Dunhuang mural. Drop in chat if you've been to the Mogao Caves!”

Selling points:

- 2:1 ratio of dual-color clay, the world's only formulation
- Intangible Cultural Heritage: Clay Blasting + Slapping + Integrated Forming
- 300 ml, daily Pu'er and Oolong tea masterpiece
- Benefits: Get a free Dunhuang-themed tea towel with your first 20 orders

Link words:

“Tap the little yellow basket—Link 1 is live, 15 % OFF for the first 10 minutes.”

———————————————

Caotang Bamboo Rhythm Pot (#002)

Viewing angle: Close-up of mugwort marks on the lid and bamboo joints on the spout.

Host:

“Next up—Thatched Cottage teapot. Master Zhang visited Du Fu's cottage in Chengdu and carved the exact grass texture into the lid. The spout? A living bamboo shoot. Brewing tea with it feels like sipping history.”

Ineraction:

“Comment ‘poetry' if you know Du Fu's famous line ‘Rain washes the bamboo courtyard.' We'll pick one comment for a mystery gift.”

Selling point:

- Empty handle with anti-scald design
- Benefits: Includes matching bamboo tea stirrer

———————————————

b: Operational Phase: Through industry-academia collaboration programs, students engage directly in real-world live-streaming operations within enterprises. Over the past three years, the project team

has consistently guided students to participate in prestigious events including the "Xiangqiao Night Talks" Intangible Cultural Heritage Salon, National Cross-border E-commerce Innovation & Entrepreneurship Competition, National Foreign Trade Competency Contest, and National Business English Innovation & Entrepreneurship Competition, securing multiple national-level grand prizes and first prizes. These hands-on experiences have been incorporated into teaching methodologies for continuous improvement. Statistics indicate that students involved in these programs demonstrate significantly enhanced employability competitiveness.

c: Effectiveness Stage: Using project outcomes as core evaluation metrics, this phase establishes a value cycle integrating "teaching-practice-social service." For instance, student teams produced promotional videos for "anime IP dolls" on Facebook, achieving over 8,000 interactions per session. Their TikTok livestreams for "Dunhuang Flying Apsaras Pot" successfully promoted cultural narratives globally, demonstrating bidirectional empowerment through "cultural technology". These measurable achievements not only validate student competencies but also directly facilitate international dissemination of local industries and cultural heritage.

3.2 Technological Innovation: Multimodal Resource Database and Intelligent Evaluation System

According to multimodal discourse theory, the integration of diverse symbolic resources plays a pivotal role in meaning construction (Kress van Leeuwen, 2001). This study validates the applicability of the theory in teaching through the development of a multimodal teaching resource repository. The repository incorporates local industrial resources, encompassing:

a: Product database and live streaming case library: including multi-angle images, videos, technical specifications, and cultural narratives for products such as hand-pulled teapots, wood carvings, and toys.

b: Traditional Culture Translation Database: Includes bilingual introductions to Chaoshan intangible cultural heritage, research papers on English translation strategies for characteristic terms (such as the lead researcher's paper "Research on English Translation Strategies for Characteristic Terms in Chaoshan Traditional Arts from the Perspective of International Chinese Cultural Education").

c: Live teaching resource library: includes detailed live streaming scripts, standard operating procedures (SOPs), data analysis report templates, etc..

Meanwhile, a process evaluation mechanism was established based on the platform to dynamically assess student performance across dimensions such as language proficiency, technical application, and teamwork, thereby overcoming the limitations of traditional paper-and-pencil examinations.

3.3 Cultural Empowerment: the International Spreading of Chinese Culture

The intercultural communication competence model emphasizes the integration of "knowledge, skills, and attitudes" (Byram, 1997). Through the practice of exporting cultural products, this study aims to enhance students' cultural awareness and international communication capabilities. Leveraging cross-border e-commerce live streaming practices featuring Chaozhou (a city in south China) intangible cultural heritage (such as hand-pulled teapots and wood carvings), students narrate "Chaoshan stories" in English to promote cultural exports. For instance, during the live promotion of the "Dunhuang Flying Apsaras Teapot," the integration of intangible cultural techniques with Eastern aesthetics generated over 2,000 interactions per session. In promotional experiments on international social media platforms like TikTok, the team concluded that innovation and creativity are core elements, authentic cultural presentation resonates more with global audiences, and music, copywriting, and visual elements must work synergistically. These findings reflect the value of bidirectional empowerment through "cultural technology."

4. Implementation Effectiveness and Academic Value

4.1 Talent Cultivation Outcomes

There are certain outcomes of the cultivation process as follows:

Performance in competitions shows significant improvement with rising innovation capabilities. Over the past three years, the award-winning rate of project students participating in national

cross-border e-commerce, international trade, and innovation and entrepreneurship competitions has increased by 40%, with dozens of national and provincial awards accumulated. Student teams collaborate with enterprises annually to create innovation and entrepreneurship projects.

The curriculum system and teaching resources have reached maturity. Three school-based courses including "Practical Cross-border E-commerce Course" have been developed; A multidisciplinary faculty team integrating language, technology, and innovation has been established, and a distinctive teaching resource repository and platform has been created. Relevant teaching papers have been published in journals.

Students have enhanced their employment competitiveness and social recognition. Empirical data indicate that students participating in this training model demonstrate significantly higher employment competitiveness and employer satisfaction compared to those trained under traditional models. Graduates can rapidly adapt to positions such as cross-border e-commerce live streaming operations, overseas social media marketing, and foreign trade business.

4.2 Academic Value

This study achieved significant theoretical breakthroughs and practical innovations by establishing a three-in-one training model integrating "data-driven approaches, scenario integration, and cultural innovation":

In the data-driven dimension, the concept of digital intelligence empowerment in education was deeply integrated with Business English teaching, establishing a dynamic teaching mechanism based on real-time data from cross-border e-commerce platforms. Through learner behavior analysis, script optimization, and personalized resource delivery, this approach achieved a paradigm shift from experiential teaching to evidence-based teaching.

In the dimension of scenario integration, the study innovatively combines situational learning theory with connectivism to construct a "real-simulation-virtual" tripartite teaching space, enabling students to achieve competency advancement through diverse scenarios such as promoting intangible cultural heritage in "Xiangqiao Night Talks" and simulating live streaming platform operations.

In the cultural innovation, by integrating cultural communication theory with innovation diffusion theory, a dual-driven mechanism of cultural decoding and innovation diffusion has been established, providing a replicable theoretical framework for the reform of applied liberal arts disciplines. The practical approach developed in this study demonstrates significant replicability value, establishing a tripartite solution integrating modular curriculum systems, standardized industry-education integration mechanisms, and innovative evaluation frameworks. The curriculum adopts a three-tier modular design structured as "foundational knowledge → specialized training → innovation development." Industry-education collaboration is standardized through a five-step methodology encompassing "school-enterprise partnership, faculty resource sharing, project-driven implementation, technology transfer, and quality assurance." The teaching evaluation system innovatively combines three-dimensional metrics encompassing process evaluation, value-added assessment, and outcome measurement.

5. Conclusion and Outlook

By establishing a digitally-integrated business English cross-border e-commerce live streaming competency development model, this study effectively addresses the disconnect between practical teaching in business English programs and industry demands. Empirical evidence demonstrates that adopting a three-dimensional integration framework of "language - industry - technology," structured around "platform - module - scenario architecture," and implemented through a closed-loop system of "practical training - real world application - effective outcomes," enables systematic and efficient cultivation of versatile, application-oriented, and innovative foreign language professionals tailored to the digital trade era.

In the future, the team will focus on the following: First, further deepen the data sharing mechanism between schools and enterprises, and explore the precise application of artificial intelligence technology in cross-cultural communication training; Second, strengthen cooperation with international e-commerce platforms in countries along the Belt and Road to expand overseas market practice scenarios; Third, continuously improve and promote the standard toolkit and resource-sharing

mechanism of this model, providing a full-chain implementation plan for the reform of business English programs and the development of new liberal arts in more similar institutions, ultimately contributing educational strength to the globalization of the China brand and enhancing the nation's cultural soft power.

Fund Projects

2025 Guangdong Provincial Higher Education Teaching Research and Reform Project "Research on Digital Intelligence Empowerment for Business English Cross-border E-commerce Live Streaming Competency Development Model" (E26020 / 2025GJ859).

References

[1] Wang, L. F., & Cui, C. (2020). Core issues in the construction of business English programs under the new liberal arts background. Technology Enhanced Foreign Language Education, (5), 3-8.
[2] Zhu, Z. T., & Hu, J. (2024). Digital intelligence enabling education: Connotation, framework, and pathways. E-Education Research, 45(1), 15-22.
[3] Shen, S. S. (2024). Exploring pathways for educational transformation in the digital intelligence era. E-Education Research, 45(3), 25-31.
[4] Lave, J., & Wenger, E. (1991). Situated Learning: Legitimate Peripheral Participation. Cambridge University Press.
[5] Kress, G., & Van Leeuwen, T. (2001). Multimodal Discourse: The Modes and Media of Contemporary Communication. Arnold.
[6] Byram, M. (1997). Teaching and Assessing Intercultural Communicative Competence. Multilingual Matters.
[7] Guo, W. L. (2023). A study on business English cross-border e-commerce teaching from the perspective of usage events. Knowledge Window, (9), 18-20.
[8] Guo, W. L. (2025). A study on English translation strategies for characteristic terms of Chaozhou traditional arts from the perspective of international Chinese culture education. Journal of Heihe University, 16(9), 109-112.