

Brought to you by [INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA](#)

Scopus

[Back](#)

Enhancing Language Service Education with Literary Narratives: An XGBoost Regression Approach

Proceedings of 2025 3rd International Conference on Information Education and Artificial Intelligence, ICIEAI 2025 • Conference Paper • Open Access • 2026 •

DOI: 10.1145/3799457.3799550

[Liu, Jia](#)^a ; [Mohsen, Hamoud Yahya Ahmed](#)^b

^a School of English Language and Literature, Xi'an Fanyi University, Shannxi, Xi'an, China

[Show all information](#)

0

Citations

[View PDF](#)[Full text](#) [Export](#) [Save to list](#) [Document](#)[Impact](#)[Cited by \(0\)](#)[References \(8\)](#)[Similar documents](#)

Abstract

In the context of globalization and the collaborative development of regional economies, the cultivation of high-quality language service professionals has become a critical requirement for advancing the construction of the Hainan Free Trade Port in China. Based on the theoretical perspective of language-culture symbiosis, this study intends to build a two-track training track including "language transformation" and "cultural mediation" to compensate for the deficiencies of language service education, especially low cultural literacy and weak practice orientation. In terms of methodology, this research constructs a modular teaching program structured around scenario-based literary translation workshops, interdisciplinary coursework, and internships with regional cultural enterprises. To validate this model, a stratified survey was administered to 378 stakeholders-comprising students, educators, and industry practitioners recruited via institutional

networks-and analyzed using the XGBoost Regression model to explore the influencing factors of students' cultural awareness and professional capability. Finally, the XGBoost Regression model is applied to analyze the collected data in order to explore the influencing factors of students' cultural awareness, intercultural communication ability, and high-level language service ability. The empirical results show that the inclusion of literary narratives embedded in AI-based digital tools such as natural language processing and virtual/augmented reality can improve students' cultural sensitivity, communicative flexibility, and professional performance. These results indicate that a narrative-based, data-driven model of language service education meets the strategic needs of the Hainan Free Trade Port, and this model also shows high replicability and scalability in other multilingual and multicultural educational practices. © 2025 Copyright held by the owner/author(s).

Author keywords

Cultural Translation; Dual Language-Culture Pathway; Language Services; Language Services Education; Language Transformation; Literary Narratives; XGBoost Regression

Indexed keywords

Engineering controlled terms

Artificial intelligence; E-learning; Economic and social effects; Education computing; High level languages; Human engineering; International trade; Natural language processing systems; Regional planning; Regression analysis; Teaching; Translation (languages); Virtual reality

Engineering uncontrolled terms

Cultural translation; Dual language-culture pathway; Free trade; Language service; Language service education; Language transformation; Literary narrative; Regression modelling; Service educations; Xgboost regression

Engineering main heading

Students

Funding details

Details about financial support for research, including funding sources and grant numbers as provided in academic publications.

Funding sponsor	Funding number	Acronym
Collaborative Research Project of the Shaanxi Provincial Special Program for Foreign Language Disciplines		

Funding text

Grand Number: 2025H20984, Innovative Pathways for Integrating English Literature Teaching under the Perspective of DigitalIntelligent Transformation toward \"Understanding Contemporary China\" (2025) sponsored by Collaborative Research Project of the Shaanxi Provincial Special Program for Foreign Language Disciplines.

Corresponding authors

Corresponding author	J. Liu
Affiliation	School of English Language and Literature, Xi'an Fanyi University, Shannxi, Xi'an, China
Email address	15399461266a@gmail.com

© Copyright 2026 Elsevier B.V., All rights reserved.

Abstract

- Author keywords
- Indexed keywords
- Funding details
- Corresponding authors

About Scopus

- What is Scopus
- Content coverage