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จังหวัดมหาสารคาม 44000

DR.KEN Institute of Academic Development and Promotion
No. 139/26 Theenanon Road, Talad Sub-district,
Mueang Mahasarakham District, Mahasarakham Province,
Thailand, 44000 Tel: +66946398978

Website Address : www.mldskill.com/journal/index.php/IJSASR
: +66946398978
: Dr.keninstitute
: dr.keninstitute@gmail.com,

Nan Yuxiang

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Associate Professor Dr. Rattana Panyapa is a distinguished academic at Ubon Ratchathani Rajabhat University in Thailand, where she focuses on theology, religious studies, and interdisciplinary social development. With a strong academic background and a Doctor of Theology degree, she contributes extensively to both teaching and research. Dr. Rattana also serves on the editorial boards of respected journals, promoting scholarly collaboration and innovation. His research contributions, which span various aspects of humanities and social sciences.
Expertise: Theology, Religious Studies, Interdisciplinary Research, Sustainable Social Development, Humanities, and Social Sciences.

E-mail : rattana.p@ubru.ac.th

Google Scholar: https://scholar.google.co.th/citations?hl=en&user=ejbxnyYAAAAJ

ORCID ID: https://orcid.org/0000-0001-7801-9340

Editor-In-Chief

Assistant Professor Dr. Sanya Kenaphoom

Assistant Professor Dr. Sanya Kenaphoom is a prominent scholar in public administration at Rajabhat Mahasarakham University, Thailand, and serves as Director of the DR.KEN Institute of Academic Development and Promotion. He holds a Doctor of Public Administration (D.P.A.) and specializes in public policy, governance, sufficiency economy, community development, and strategic planning. Dr. Sanya is the Editor-in-Chief of the Interdisciplinary Academic and Research Journal and plays a key role in promoting interdisciplinary academic research in Thailand. His scholarly contributions, which focus on sustainable development and good governance, are widely recognized.

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Expertise: Public Administration, Public Policy, Governance, Sufficiency Economy Philosophy, Community Development, Strategic Planning, Educatio

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E-mail: sanya.ke@rmu.ac.th

ORCID ID: https://orcid.org/0000-0002-9833-4759

Google Scholar: https://scholar.google.com/citations?user=Ex2SJ-8AAAAJ&hl=th

Editorial Board Members

Assoc. Prof. Dr. Chot Bodeerat

Phibunsongkhram Rajabhat University, Thailand

Associate Professor Dr. Chot Bodeerat is a senior academic at Phibunsongkhram Rajabhat University in Thailand, known for his contributions to the fields of international relations, public administration, and community engagement. His academic work often explores governance, policy implementation, and participatory development, particularly within local and regional contexts. Dr. Chot actively publishes scholarly articles and serves on editorial boards, supporting interdisciplinary research and academic advancement. His research outputs are available via his Google Scholar profile, where his ongoing work reflects a commitment to public service innovation and higher education development.

Expertise: International Relations, Public Administration, Governance, Policy Implementation, Community Participation, and Higher Education Development.

E-mail: chotbodeerat@psru.ac.th

ORCID ID: https://orcid.org/0000-0002-6849-3791

Google Scholar: https://scholar.google.co.th/citations?hl=en&user=-bxQstAAAAAJ

Assoc. Prof. Dr. Ratana Panyapa

Ubon Ratchathani Rajabhat University, Thailand

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Associate Professor Dr. Rattana Panyapa is a distinguished academic at Ubon Ratchathani Rajabhat University in Thailand, where she focuses on theology, religious studies, and interdisciplinary social development. With a strong academic background and a Doctor of Theology degree, she contributes extensively to both teaching and research. Dr. Rattana also serves on the editorial boards of respected journals, promoting scholarly colla

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contributions, which span various aspects of humanities and social sciences.
Expertise: Theology, Religious Studies, Interdisciplinary Research, Sustainable Social Development, Humanities, and Social Sciences.

E-mail: rattana.p@ubru.ac.th

ORCID ID: https://orcid.org/0000-0001-7801-9340

Google Scholar: https://scholar.google.co.th/citations?hl=en&user=ejbxnyYAAAAJ

Asst. Prof. Dr.Sompong Kesanuch

Rajamangala University of Technology Suvarnabhumi, Thailand

Assistant Professor Dr. Sompong Kesanuch is a faculty member at Rajamangala University of Technology Suvarnabhumi, Thailand, with research expertise in educational innovation, democratic development, and community engagement. His work focuses on designing instructional media to foster democratic values among students, promoting civic responsibility, and developing leadership within communities. Dr. Sompong also explores multimedia tools and mixed-method approaches to enhance learning environments and support sustainable university initiatives.

Expertise: Educational Innovation, Instructional Design, Democratic Development, Civic Education, Community Leadership, and Multimedia Learning Tools.

E-mail: sompongek@gmail.com

Google Scholar: https://scholar.google.co.th/citations?hl=th&user=F8Yxl54AAAAJ

Assoc. Prof. Dr. Jitti Kittilertpaisan

Sakon Nakhon Rajabhat University, Thailand

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Associate Professor Dr. Jitti Kittilertpaisan is a senior academic and Vice President for Administration at Sakon Nakhon Rajabhat University, Thailand. He is actively involved in promoting cooperative education, university–community partnerships, and sustainable development initiatives. His research spans public administration, development studies, and policy analysis, with notable works on entrepreneurial intent, agricultural efficiency, and homelessness intervention. Dr. Jitti integrates quantitative research methods with community-based approaches to address real-world challenges.

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Expertise: Public Administration, Development Studies, Policy Analysis, Community Development, Cooperative Education, and Quantitative Research Methods.

E-mail: jitti1998@hotmail.com

ORCID ID: https://orcid.org/0000-0001-6644-4315

Assoc. Prof. Dr. Jirayu Supsin

Faculty of Humanities and Social Sciences, Surin Rajabhat University, Thailand

Associate Professor Dr. Jirayu Supsin is a senior academic in the Faculty of Humanities and Social Sciences at Surin Rajabhat University, Thailand. He specializes in political science and public administration, with a strong focus on community development, local governance, and economic empowerment initiatives. His recent research includes studies on political participation, community leadership mechanisms, and strategies to boost economic opportunities for aging societies in Surin Province, reflecting his commitment to sustainable local development.

Expertise: Political Science, Public Administration, Local Governance, Community Development, Community Enterprise, Economic Empowerment, and Mixed-Methods Research.

E-mail: jhssrru@srru.ac.th

Google Scholar: https://scholar.google.com/citations?user=7lx5EoYAAAAJ&hl=th

Assoc. Prof. Dr. Sirivadee Wiwithkhunakorn

Nakhon Ratchasima Rajabhat University, Thailand

Associate Professor Dr. Sirivadee Wiwithkhunakorn is a decorated academic at Nakhon Ratchasima Rajabhat University (NRRU), Thailand, serving as an Associate Professor in the Department of Public Administration and holding leadership roles as Dean of the Faculty of Humanities and Social Sciences. She has co-authored research on developing professional competencies and human resource practices within Rajabhat universities, employing structural modeling and mixed-method approaches to enhance institutional effectiveness.

Expertise: Public Administration, Public Law, Human Resource Development, Institutional Governance, Competency Modeling, Interdisciplinary Education, and International Academic Collaboration.

Nan Yuxiang

E-mail: sirivadee.w@nrru.ac.th

ORCID ID: https://orcid.org/0000-0002-0842-7709

Assoc. Prof. Dr.Watcharaporn Jantanukul

Ubon Ratchathani Rajabhat University, Thailand

Associate Professor Dr. Watcharaporn Jantanukul is a faculty member at Ubon Ratchathani Rajabhat University in Thailand, specializing in strategic management for local and cultural development, artificial intelligence–enhanced teaching, and community-focused public services. Her recent work includes a 2025 study on "Strategic Management Techniques to Enhance the Sustainable Value-added Local Culture – Local to Global", exploring how local cultures can gain value in the global context. In 2024, she authored a systematic review titled “AI and Human Synergy: Utilizing AI to Enhance Teaching and Learning,” examining how AI integration can support personalized learning while highlighting ethical and equity challenges. Dr. Watcharaporn also investigates public service delivery models to balance efficiency, accountability, and social equity. Her research outputs, reflected in multiple peer-reviewed journals and indexed academic profiles, demonstrate a commitment to enhancing educational quality and community wellbeing through innovative, interdisciplinary approaches.

Expertise: Strategic Management, Local & Cultural Development, AI-Enhanced Education, Public Service Efficiency, Accountability & Equity, and Community Engagement.

E-mail: chomchob49@gmail.com

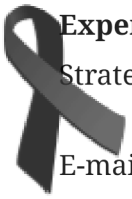
ORCID ID: https://orcid.org/0000-0001-8048-9798

Asst. Prof. Dr. Chuthamas Chompha

Ubon Ratchathani Rajabhat University, Thailand

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Assistant Professor Dr. Chuthamas Chompha is a lecturer in the Faculty of Humanities and Social Sciences at Ubon Ratchathani Rajabhat University, Thailand. Her research centers on community development and poverty alleviation through local community enterprises, with notable work on enhancing operational capabilities of community organizations and applying strategic models to address rural poverty in Ubon Ratchathani Province. Her studies incorporate both quantitative and qualitative approaches to develop sustainable frameworks for empowerment, marketing, and organizational management within Thai communities.



Expertise: Community Development, Poverty Alleviation, Community Enterprise Management, Strategic Planning, Quantitative & Qualitative Research Methods, and Local Empowerment

E-mail: chuthamars.chom@gmail.com

ORCID ID: https://orcid.org/0000-0003-4130-6236

Google Scholar: https://scholar.google.co.th/citations?user=KwiCB1kAAAAJ&hl=th

Asst. Prof. Dr. Pisak Kalyanamitra

Valaya Alongkorn Rajabhat University, Thailand

Assistant Professor Dr. Pisak Kalyanamitra is a faculty member at Valaya Alongkorn Rajabhat University in Pathum Thani, Thailand, with a focus on public administration, governance, and education policy. His research includes topics such as good governance in local administrative organizations, fiscal autonomy, social capital development rooted in the Sufficiency Economy philosophy, and quality assurance in ASEAN universities. Dr. Kalyanamitra employs both quantitative (e.g., causal relationship models, frontier analysis) and qualitative approaches to support sustainable development and organizational effectiveness. His work is documented across multiple journals and indexed in Google Scholar and ResearchGate.

Expertise: Public Administration, Good Governance, Fiscal Autonomy, Social Capital & Sufficiency Economy, Educational Quality Assurance, Quantitative & Qualitative Research Methods.

E-mail: pisak@vru.ac.th

ORCID ID: https://orcid.org/0000-0001-5624-933X

Asst. Prof. Dr. Wanchai Suktam

Surin Rajabhat University, Thailand

Nan Yuxiang

Assistant Professor Dr. Wanchai Suktam is a lecturer and researcher at Surin Rajabhat University, Thailand, with expertise in public administration, political science, community development, and human resource management. His research focuses on participatory development, volunteerism, and local wisdom, aiming to empower communities and promote sustainable livelihoods—particularly among elderly groups in border areas. Dr. Wanchai also explores educational innovation, including the use of blockchain technology for academic credentialing and data



management. His scholarly work reflects a strong commitment to community engagement and policy-driven development.

Expertise: Public Administration, Political Science, Community Development, Human Resource Management, Participatory Research, Volunteerism & Local Wisdom Learning, Educational Innovation, and Technology in Education.

E-mail: wanchai2526@srru.ac.th

ORCID ID: https://orcid.org/0000-0002-0696-1377

Google Scholar: https://scholar.google.com/citations?user=dj-RB6YAAAAJ&hl=th

Asst. Prof. Dr. Kanlayani Charoensopharat

Rajabhat Mahasarakham University, Thailand

Assistant Professor Dr. Kanlayani Charoensopharat is a biotechnology researcher at Rajabhat Mahasarakham University, Thailand, specializing in fermentation engineering, bioethanol production, and microbial biotechnology. Her research focuses on developing thermotolerant yeast strains for efficient bioethanol production from various substrates such as cassava, molasses, and Jerusalem artichoke. She also explores antimicrobial compounds derived from Streptomyces and plant extracts, integrating applied microbiology with sustainable bioprocessing. Dr. Kanlayani holds a Ph.D. in Biotechnology and has published extensively in her field.

Expertise: Biotechnology, Fermentation Engineering, Bioethanol Production, Thermotolerant Yeasts, Antimicrobial Compound Discovery, Electrophoresis, and Cloning.

E-mail: kanlayani@rmu.ac.th

ORCID ID: https://orcid.org/0000-0002-7091-5615

Google Scholar: https://scholar.google.com/citations?hl=th&user=ZSly9c8AAAAJ

Asst. Prof. Dr. Busara Niyomves

Nan Yuxiang

Ramkhamhaeng University, Thailand

Assistant Professor Dr. Busara Niyomves is an academic at Ramkhamhaeng University, Thailand, with expertise in educational management, lifelong learning, and technology-enhanced instruction. Her research focuses on hybrid learning m

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in AI-integrated education, and comparative studies between formal schooling and tutoring institutions. She employs mixed-method research approaches to explore educational outcomes and contribute to policy and innovation in teaching and learning.

Expertise: Educational Management, Hybrid & Technology-Enhanced Learning, Lifelong Learning, Ethical Leadership in AI Education, Comparative Education, and Mixed-Methods Research.

E-mail: busara_09@hotmail.com

ORCID ID: https://orcid.org/0000-0002-3434-9310

Asst. Prof. Dr. Ntapat Worapongpat

Eastern Institute of Technology Suvarnabhumi (EITS), Thailand

Assistant Professor Dr. Ntapat Worapongpat is a faculty member at the Eastern Institute of Technology Suvarnabhumi (EITS), Thailand, and serves as the head of the Center for Knowledge Transfer, Technology, Community Innovation, Entrepreneurship, Tourism, and Education. His expertise lies in innovative educational leadership, community-based digital marketing, and AI-enhanced learning systems. His recent research explores leadership in private university administration, AI mindfulness in graduate education, and strategies for integrating technology to foster community innovation and entrepreneurship.

Expertise: Innovative Educational Leadership, Digital Community Marketing, Organizational Learning, AI-Enhanced Education, Community Innovation, Technology Transfer, and Entrepreneurship.

E-mail: dr.thiwat@gmail.com

ORCID ID: https://orcid.org/0009-0008-3071-5249

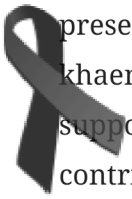
Google Scholar: https://scholar.google.com/citations?user=4DHixrwAAAAJ&hl=th

Dr.Pariyat Namsanga

Rajabhat Maha Sarakham University, Thailand

Nan Yuxiang

Dr. Pariyat Namsanga is a music scholar and educator at Rajabhat Maha Sarakham University in Thailand, specializing in musicology, ethnomusicology, and music education. His work focuses on



preserving and innovating traditional Isan music by blending local styles, such as mōlam and khaen, with Western influences. As an Assistant Dean, he also oversees music infrastructure and supports student development through cultural performances and academic research. His contributions help bridge traditional Thai musical heritage with modern educational practices, enriching both the local community and academic discourse.

Expertise: Musicology, Ethnomusicology, Music Education, Society and Culture

E-mail: pariyat.na@rmu.ac.th

Google Scholar: https://scholar.google.com/citations?user=a22upkoAAAAJ

Dr.Suratsawadee Chantachon

Sirindhorn College of Public Health, Chonburi, Thailand

Dr. Suratsawadee Chantachon is a public health researcher at Sirindhorn College of Public Health, Chonburi, Thailand, specializing in community healthcare innovations with a strong emphasis on herbal health applications for older adults. Her recent work includes developing a prototype *"herbal pain relief belt"* aimed at alleviating knee pain in elderly residents of Bang Nam Priao District, showing significant reductions in discomfort and NSAID usage in quasi-experimental trials. She also co-researches on the adaptive use of traditional Mongolian ger dwellings, examining their health and educational benefits alongside Dr. Songkoon Chantachon. Her ORCID ID is 0009-0005-4173-1728, and her emerging Google Scholar profile indicates a growing publication record focused on practical, health-centered innovation in Thai communities.

Expertise: specializes in community health, elderly care, herbal medicine, health innovation, and traditional Thai health practices.

Mail: suratsawadee@scphc.ac.th

ORCID ID: https://orcid.org/0009-0005-4173-1728

Google Scholar: https://scholar.google.com/citations?user=B4cfQYsAAAAJ&hl=th

Lecturer Sunisa Potisansuk

Rajabhat Mahasarakham University in Thailand

Nan Yuxiang



Lecturer Sunisa Potisansuk is a faculty member at Rajabhat Mahasarakham University in Thailand, where she specializes in teaching dance and drama. Her academic work focuses on the preservation and innovation of Thai folk and religious performances, often combining traditional storytelling, music, and costume with modern choreography. Through her research, she explores cultural themes such as the Holi festival, Isaan legends, and spiritual rituals at shrines, aiming to keep local arts relevant and meaningful in contemporary society. Her publications also contribute to the understanding of community-based crafts and performances, highlighting their role in cultural identity and education.

Expertise: Thai dance and drama, folk and religious performance, cultural preservation, contemporary choreography, and community-based arts.

E-mail: sunisa15122126@gmail.com

Google Scholar: https://scholar.google.com/citations?user=z5CeQhcAAAAJ&hl=th

Dr.Narisara Khamsing

Faculty of Management Science, Rajabhat Maha Sarakham University, Thailand

Dr. Narisara Khamsing is a faculty member at the Faculty of Management Sciences, Rajabhat Maha Sarakham University, Thailand. She specializes in tourism management with a strong focus on community-based and sustainable tourism. Her academic background includes a doctorate in Tourism and Hospitality Management, and she has extensive teaching experience in hotel management, front office operations, and community tourism. Beyond teaching, she frequently serves as a guest speaker on topics such as personality development, front office services, and community tourism development.

Her research contributions span both behavioral studies and applied tourism planning. Key projects include analyzing tourist intentions in faith-based tourism in Maha Sarakham Province, and optimizing family travel routes in Buriram using advanced heuristic models. These works combine social science approaches, such as survey analysis, with technical methods like adaptive algorithms, reflecting her interdisciplinary strength. Her studies not only enhance academic understanding but also provide practical insights for local tourism development, helping communities design sustainable tourism experiences.

Expertise: Community-based and sustainable tourism, hospitality and front office management, homestay and tourism route development, personality development, communication skills, and tourism behavior research.

E-mail: Narisara.kh@rmu.ac.th

Google Scholar: https://scholar.google.com/citations?user=iuCbpykAAAAJ&hl=th

Managing Editors

Krisada Saenbuakham

Nan Yuxiang

Research and Development Institute, Rajabhat Maha Sarakham University, Maha Sarakham, Thailand

E-mail: krisda@rmu.ac.th

Hongyaya Dechphanna

Faculty of Political Science and Public Administration, Rajabhat Maha Sarakham University, Maha Sarakham, Thailand

E-mail: prapatsornsubterm@gmail.com



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Vol. 6 No. 2 (2026): March-April

PUBLISHED: 2026-03-08

ARTICLES

Study of Learning Retention and Scientific Attitude of Grade 3 Students Learned via Educational Games

Sarinee Prawuntao, Natechanok Jansawang

e290319

PDF

The Impact of Work Environment and Motivation on Job Satisfaction among Airline Ground Staff in Thailand

Juan Rodrigo B. Del Villar, Chanyanuch Nuchnang, Amanda Crisp, Amornteb Intasorn, Omega Rose P. Allanic, Surarak Onpan, Michael P. Mallo

e290195

PDF

The Collaboration between the Public and Private Sectors in Establishing a Support System for Learning in Schools under the Partnership School Project: A Case Study of Partnership Schools in the Central and Eastern Regions of Thailand

Yutthaphong Khamchan, Prompilai Buasuwan, Wanwisa Suebnusorn Klaijumlang

e290101

PDF

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Ethnomusicological Perspectives on Chinese Liu Dong Songs of the Dong Nian Festival

Hongyin Lu, Naruebodin Saleepun

e290028

PDF



Transformational Leadership of School Administrators Affecting the Learning Organization of Private Schools Under the Office of Private Education, Pattani Province

Laosan Katemmadee, Ubonrat Sriwichienampai, Jaras Atiwitthayabhorn

e290124

PDF

A Study of the Emotional Intelligence of School Administrators Affecting Teachers' Work Motivation under the Narathiwat Primary Educational Service Area Office 3

Meesanee Useng

e290060

PDF

The Leadership of Female Administrators Affecting the School Administration under the Satun Primary Educational Service Area Office

Nasreen Muna, Ubonrat Sriwichianaumphai, Jaras Atiwitthayabhorn

e290073

PDF

Development of Standards for Promoting Excellence in Football by the Khon Kaen Provincial Administrative Organization

Phanu Wanchuphloed, Pramuk Srichaiwong, Pongmetee Chaiseeha, Rungnapa Kittilap

e286513

PDF

The Cooperative Learning LT Technique and Games to Enhance Chinese Reading Ability for Grade 7 Students

Panida Tonwut, Kanyawadee Saeng-ngam

e287772

PDF

The Effects of Discovery-Based Mathematics Instruction Using Circular Paper Folding Activities Focus on Grade 9 Students' Problem-Solving Ability on Circles

Narisara Yamansabeedin, Songchai Ugsonkid, Chanisvara Lertamornpong

e290230

PDF

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Public Participation Affecting the Implementation of Disaster Prevention and Mitigation Efforts in Sila Municipality, Mueang District, Khon Kaen Province

Chirawat Wangtaphan, Pramuk Srichaiwong, Pongmetee Chaiseeha, Panuwat Kittikronwaranon Rattanapimonphonsaen



e286596

PDF

The Development of Learning Management Based on Davies' Concept, Combined with the Think-Pair-Share Technique, to Enhance Skills in Using Spreadsheet Programs for 2nd Year Vocational Certificate Students

Kanop Sukviset, Jittraporn Wongkumjan

e289950

PDF

Relationship between People Participation and Waste Management in Klongjed Subdistrict Administrative Organization, Khlong Luang District, Pathum Thani Province

Wanchana Teangbangluang, Titus Mala, Kamalas Yaowanit

e289891

PDF

Study of the Shooting Accuracy of Young Male Petanque Athletes in Ratchaburi Province

Thawatchai Kaithongsuk, Piyawat Talabthong, Tachit Manapornchai, Lapat Chootan

e289782

PDF

Creative Agency and Ethical Boundaries: A Documentary Analysis of AI in the Creative Industries

Laura Zengo

e290412

PDF

Service Innovation Influencing Consumers' Decisions to Purchase Electric Vehicles in Bangkok

Jitravee Thongtao, Rungroje Songsraboon, Chinagrit Wongrak, Sookkhasakon Valantagul, Somchai Benjawan, Aegapop Maneenart, Oranuch Intawongse

e290396

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Thanwaporn Wimonchailerk

e289532

PDF



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Naruedol Sawatsri, Nava Masaunjik, Auscharaporn Chalermchit

e290358

PDF

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Chutidaj Munkongtum, Supaporn Kotrsonghram, Suparat Akaraphisitwong, Korathat Choksuntasut

e289909

PDF

Effects of Using Teaching Package on Academic Achievement and Satisfaction with Study on Automotive Transmission of Professional Certificate Students at Vocational Level One of Bangnara Technical College

Alsu Mano, Wan Dechpichai

e290584

PDF

Study of Problems and Guidelines for the Development of Parcel Distribution at Mahasarakham University

Bunyarit Bunlakkham

e290197

PDF

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Ratana Mahachanawong, Nava Masaunjik, Kotchanipa Wanichkittikul

e290205

PDF

Effect of Supply Administration within Good Governance on Work Efficiency of Government Disbursing Agencies in Maha Sarakham Province

Prapaphan Kanthawong, Nava Masaunjik, Sirinthorn Liangchindathawon

e290846

PDF

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The Relationship between Transformational Leadership of School Administrators and Academic Administration in Schools under the Bangkok Metropolitan Administration, Krung Thon Tai Group

Seksan Sitsua, Pathomporn Indrangkura Na Ayudthya, Wichien Indarasompun



e290483

PDF

Factors Affecting the Academic Achievement of Undergraduate Students (Transfer Program) in the Automotive Technology Major

Warong Ngewruang

e290646

PDF

The Need for Developing School Administrators' Competencies in the Partnership School Project

Pajaree Kuenchaiyaphum, Prompilai Buasuwan, Wanwisa Suebnusorn Klaijumlang

e290534

PDF

The Study on the Effect of Learning Using Simulation Situations on Speaking Ability for First Year Vocational Certificate Students

Nanphaphat Somlum, Thassanee Rodmunkong, Phochet Thamsirikhwan

e290782

PDF

Academic Leadership of School Administrators Influencing the Development of Professional Learning Communities in Schools under the Bangkok Metropolitan Administration, Krung Thon Tai Group

Tawita Nato, Patomporn Indrangkura Na Ayudthya, Wichian Intarasompun

e290431

PDF

Challenging Leadership of School Administrators Influencing the Management of Bilingual School Projects under the Bangkok Metropolitan Administration

Jarawee Kasien, Pathomporn Indrangkura Na Ayudthya, Wichain Intarasompun

e290498

PDF

Administrative Skills of School Administrators Influencing Teachers' Quality of Work Life under the Office of the Private Education Commission, Bangkok

Jakkapong Nakprasit, Pathomporn Indrangkura Na Ayudthya, Wichain Intarasompun

e290499

PDF

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Strategic Leadership of School Administrators Influencing Teachers' Work Motivation under the Samut Sakhon Primary Educational Service Area Office

Apichit Tanha, Pathomporn Indrangkura Na Ayudthya, Wichain Intarasompun

e290497

PDF

Navigating Generational Diversity in the Thai Hotel Industry: A Cross-Cultural Examination of Workforce Dynamics

Martin Goerlich, Thanapon Suksawat

e290645

PDF

The Development of Gymnastics Creative Teaching for Pre-school Teachers in Yuncheng Preschool Education College, Shanxi Province

Ping Jiang, Samreng Wongta, Theerapong Budsarakoon

e289958

PDF

Development of Enrichment Curriculum to Enhance Competencies in Mathematical Reasoning Using Inductive and Deductive Teaching Methods Combined with Heuristic Approaches for Mathematics Education Students at Sri Ayutthaya Group of Rajabhat Universities

Nuttapong Wattanasiripong, Suwana Juithong, Mesa Nuansri

e290850

PDF

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Puwit Pupan, Chachapon Jayaphorn

e289929

PDF

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Chompoonut Rianpreecha, Pipatphon Lapamornpinyo, Peerapol Thongnoi, Nakarin Onkhieo, Anansak Khanti

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PDF

Nan Yuxiang

Measures for Monitoring Local Government Employees Who Have Been Disciplined Civil Indemnification



Sukanya Khaiwmuang, Kijbodi Kongbenjapuch, Sirivadee Wiwithkhunakorn, Apichart Buabkhom, Kandid Sirisarn
e290568

PDF

Deadpool & Wolverine: Investigating Patterns and Translation Strategies of the “F-Word” as English Swearwords in Thai Subtitles

Puree Kanchanakas, Montarat Rungruangthum
e290359

PDF

The Effects of Learning Activities Management Based on Constructivist Theory with Higher–Order Questions on Learning Achievement and Mathematical Reasoning Ability of Grade 7 Students

Napa Siribuppa, Kongrat Nualpang, Roongfa Kitiyanusan
e291086

PDF

Factors Affecting Stress among International Graduate Students at the Faculty of Sports Science and Technology Bangkokthonburi University

Chayanon Chailert, Chonlada Siripolwat, Vilasinee Wanthong, Nutchanat Khachornumpaisook, Suvachai Ritthisom
e290096

PDF

Guidelines for Supporting Factors of Teachers’ Work Happiness in Schools, the Secondary Service Area Office, Nonthaburi

Kittiya Niamtang
e291057

PDF

Nan Yuxiang

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Study on Improving Oral Communication Skills of the second-year students of English Majors in Henan Province via Flipped Classroom Combined with Game-Based Learning

Nan Yuxiang[1], Phithack Nilnopkoon[2] and Kanreutai Klangphahol[3]
[1]Master student, Curriculum and Instruction Program, Valaya Alongkron Rajabhat University under the Royal Patronage, Pathum Thani Province, Thailand
[2,3] Lecturer, Curriculum and Instruction Program, Valaya Alongkron Rajabhat University under the Royal Patronage, Pathum Thani Province, Thailand
E-mail: nyx197916@163.com, ORCID ID: https://orcid.org/0009-0000-7748-7580
E-mail: phithack@vru.ac.th, ORCID ID: https://orcid.org/0009-0008-6063-9830
E-mail: kanreutai@vru.ac.th, ORCID ID: https://orcid.org/0009-0003-2294-6390

Abstract
Background and Aims: Under the framework of national education policies such as The Outline for Building a Leading Education Nation (2024-2035), oral communication skills are core competencies for English majors. However, Chinese English majors often lack sufficient speaking practice due to traditional teaching biases and limited real-world contexts. This study aims to explore the effectiveness of combining flipped classroom (FC) and game-based learning (GBL) in improving the oral communication skills of sophomore English majors in Henan Province, and to assess whether the intervention helps students meet the 70% proficiency criterion.
Methodology: A one-group pre-test and post-test pre-experimental design was adopted. Thirty-three sophomore English majors were selected via cluster random sampling. The intervention integrated FC (pre-class knowledge transmission through videos and quizzes) and GBL (in-class role-plays, scenario challenges, and cross-cultural games) over 14 weeks (28 class hours) covering tourism English themes. Pre-test, post-test, and satisfaction questionnaires were used for data collection, with the SPSS statistical package analyzing data via paired-samples t-test, one-sample t-test, and descriptive statistics. Assumption testing (normality and outliers) was conducted before statistical analysis, and 95% confidence intervals were provided for key statistics in accordance with APA reporting standards.
Results: Students' oral communication scores showed significant improvement after the intervention, with the pre-test mean score being 58.76 (SD=5.06) and the post-test mean score increasing to 76.85 (SD=5.58) ($t=42.13$, $p<0.001$, 95% CI [17.23, 18.95]). The effect size (Cohen's $d=7.33$) is attributed to the synergistic effect of the FC+GBL integrated model, the targeted design of tourism English themes, and sufficient practice opportunities. Post-test scores exceeded the 70% criterion ($t=7.05$, $p<0.001$, 95% CI [4.82, 8.88]). Additionally, 87.9% of students achieved the 70% proficiency criterion. The overall student satisfaction mean was 4.24 (SD=0.38), indicating high acceptance of the integrated method.
Conclusion: The combination of FC and GBL shows positive effects on enhancing the oral communication skills of English majors and helps them meet educational proficiency standards. This integrated approach provides a practical reference for improving oral English teaching in higher education, with certain limitations regarding generalizability due to the research design and sample size. Given the pre-experimental nature of the one-group pretest-posttest design, these findings should be interpreted with caution regarding causal inferences.
Keywords: Flipped Classroom; Game-Based Learning; Oral Communication Skills; English Majors; Tourism English.

Introduction

Oral communication skills are pivotal for English majors, as emphasized in the National Standards for Undergraduate Teaching Quality of Foreign Languages and Literatures Majors 2018 (Ministry of Education of the People's Republic of China, 2018), which prioritizes "foreign language application

Nan Yuxiang

2

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ability" and "cross-cultural communication ability" as core competencies. In the context of globalization, these skills enable graduates to engage in international exchanges and meet the demands of compound talent development. However, traditional English teaching in China has long focused on reading and writing due to exam-oriented pressures, resulting in insufficient speaking practice. As Abeysekera and Dawson (2015) note, many learners lack opportunities to apply oral communication skills in real contexts, leading to "silent English" phenomena.

The flipped classroom (FC) has emerged as an innovative pedagogical approach that reorganizes teaching sequences: moving knowledge transmission (e.g., lectures, readings) to pre-class activities and using in-class time for active, social learning (Prince, 2004). This model promotes self-regulated learning and deeper engagement, as students can master basic concepts at their own pace before applying them in class. Means et al. (2020) further confirm that FC is more effective than traditional face-to-face teaching in motivating learners and enhancing skill development, making it suitable for addressing the limitations of conventional oral English instruction. In contrast to some studies that merely describe FC's application, this research emphasizes its combination with GBL to address the specific needs of oral communication skill training in tourism English.

Complementing FC, game-based learning (GBL) integrates educational objectives into gameplay, leveraging elements such as competition, rewards, and scenarios to boost engagement (Abdul Jabbar & Felicia, 2015). GBL transforms passive learning into immersive experiences, reducing anxiety associated with speaking and encouraging active participation. Tao et al. (2017) highlight that GBL stimulates problem-solving skills and intrinsic motivation, which are critical for mastering oral communication. When combined, FC and GBL create a synergistic effect: FC provides the knowledge foundation, while GBL enhances application and retention (Algayres & Triantafyllou, 2019).

Existing studies on the integration of FC and GBL have achieved certain results, but there are obvious gaps. For example, Hung (2018) found that gamified flipped classrooms significantly improve students' oral fluency and engagement, but the research focuses on general English rather than specialized fields like tourism English, which requires scenario-specific communication skills. In addition, most relevant studies lack an in-depth analysis of conflicting findings and methodological critiques. For instance, Ekici (2021) pointed out that gamification enhances flipped learning by boosting motivation and engagement, but the effects on academic performance are mixed, and few studies have explored the reasons for this inconsistency. This research addresses these gaps by implementing FC+GBL in a Tourism English course, focusing on 14 practical themes (e.g., traditional Chinese culture, hotel services). By comparing pre- and post-test performance, analyzing the advantages and limitations of the research design, and assessing student satisfaction, this study aims to validate the model's practical value in specialized English teaching and provide actionable insights for higher education English teaching reform.

Objectives

1. To explore the changes in oral communication skills of sophomore English majors before and after receiving instruction via the FC+GBL integrated method.
2. To assess whether students' post-intervention oral communication skills meet the predetermined 70% proficiency criterion.
3. To evaluate students' satisfaction with the FC+GBL integrated teaching method.

Literature Review

Flipped Classroom and Game-Based Learning: Theoretical Foundations

The flipped classroom is defined as a set of pedagogical approaches that relocate information-transmission activities to pre-class time, using in-class sessions for collaborative, active learning (Abeysekera & Dawson, 2015). Bergmann and Sams (2012) emphasize that FC's core value lies in restructuring knowledge transmission and internalization, enabling students to engage in higher-order

Nan Yuxiang

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thinking during class. Talbert (2014) further refines the model by adding guided pre-class practice and in-class quick tests, enhancing the continuity between pre-class and in-class activities. Compared with traditional teaching models, FC shifts the focus of classroom teaching from "teacher-centered" to "student-centered," which is more in line with the needs of oral communication skill training that requires sufficient interaction and practice.

Game-based learning, meanwhile, is grounded in constructivist theory, which posits that learning occurs through active exploration and experience (Papert, 1990). Kapp (2012) argues that GBL's effectiveness stems from its integration of game mechanics (e.g., points, badges, progressive challenges) into non-game environments, stimulating intrinsic motivation. Raph Koster (1998) supplements this by noting that GBL promotes pattern recognition and skill mastery through immediate feedback and chunked learning paths. It is worth noting that although GBL has obvious advantages in improving learning engagement, excessive emphasis on game fun may lead to the neglect of educational goals. Therefore, the design of GBL activities in this study balances entertainment and learning, ensuring that each game is closely aligned with tourism English oral communication objectives.

Integration of FC and GBL in Language Teaching

The combination of FC and GBL aligns with self-determination theory and connectivism, as it supports autonomy, competence, and social interaction (Shang et al, 2012). Gee (2015) highlights that GBL's narrative-driven scenarios (e.g., role-plays, quests) complement FC's pre-class knowledge acquisition, transforming passive video-watching into immersive learning. MIT's Open Learning Initiative (2018) further confirms that FC+GBL creates a "virtuous cycle" of self-regulated learning, with students showing 30% higher knowledge retention compared to traditional methods (Berkman, 2018). However, this conclusion needs to be viewed with caution. Some studies have found that the effectiveness of FC+GBL is affected by factors such as student learning styles and teacher guidance capabilities. For example, Meluso et al. (2012) found that GBL is more effective for students with active learning styles, while for students with passive learning styles, additional guidance and encouragement are needed.

In language education, Hung (2018) found that gamified flipped classrooms significantly improve students' oral fluency and engagement. However, existing studies often focus on general English rather than specialized fields like tourism English, which requires scenario-specific communication skills. This study fills this gap by tailoring FC+GBL to tourism-related themes, integrating industry-specific vocabulary and cross-cultural communication tasks. For example, in the theme of hotel services, pre-class FC materials focus on professional vocabulary such as "check-in," "complaint handling," and "room service," while in-class GBL activities simulate real hotel service scenarios to help students apply professional knowledge in practice.

Oral Communication Skills in Tourism English

Oral communication skills in tourism English encompass linguistic accuracy, fluency, scenario adaptability, and cross-cultural competence (Costigan et al., 2019). These skills are essential for professional contexts such as hotel reception, scenic spot explanation, and complaint handling. The Thai EFL Research Team (2025) notes that AI-powered gamified flipped classrooms effectively reduce speaking anxiety and enhance practical communication abilities. However, Chinese English majors often struggle with these skills due to limited exposure to real tourism scenarios. Traditional teaching methods focus more on theoretical knowledge and lack sufficient scenario simulation and practical training, resulting in students' inability to flexibly apply oral communication skills in real work scenarios. The FC+GBL integrated model in this study addresses this problem by providing students with a large number of scenario-based practice opportunities, helping them bridge the gap between theory and practice.

Related Research

Studies on FC and GBL have confirmed their individual and combined effectiveness in enhancing learning outcomes. For FC, means et al. (2020) found that blended learning models (including FC) improved student achievement and retention compared to traditional teaching. However, this study has

Nan Yuxiang

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certain limitations in research design, such as the lack of a control group and insufficient consideration of confounding variables, such as student learning backgrounds. For GBL, Papastergiou (2009) reported that digital games enhanced students' conceptual understanding and motivation in computer science, but the research sample size was small, and the long-term effects of GBL were not explored.

For the integrated model, Ekici (2021) concluded through a systematic review that gamification enhanced flipped learning by boosting motivation and engagement, though academic performance effects were mixed. The reason for this inconsistency may be related to the design of gamification elements, the quality of pre-class learning materials, and student participation. In oral communication research, the Thai EFL Research Team (2025) found that an AI-powered gamified flipped classroom improved Thai university students' oral communication skills and reduced speaking anxiety. However, this study was conducted in Thailand, and the research results may not be fully applicable to the Chinese educational context due to differences in educational systems and student characteristics. Costigan et al. (2019) demonstrated that structured interactive exercises (e.g., group discussions, presentations) enhanced MBA students' listening and oral expression skills, but the research object was MBA students, and there are differences in the oral communication skill requirements and learning characteristics of English majors.

All in all, existing studies have laid a certain foundation for the application of FC and GBL in oral English teaching, but there are still gaps in specialized fields such as tourism English, research design improvement, and consideration of contextual factors. This study aims to make up for these gaps and provide more targeted research results and practical suggestions for the improvement of the oral communication skills of Chinese English majors.

Conceptual Framework

This study's conceptual framework centers on the FC+GBL integrated method as the independent variable, with oral communication skills and student satisfaction as dependent variables, and motivation and engagement as mediating variables. Guided by constructivism, self-determination theory, and connectivism, the framework assumes that:

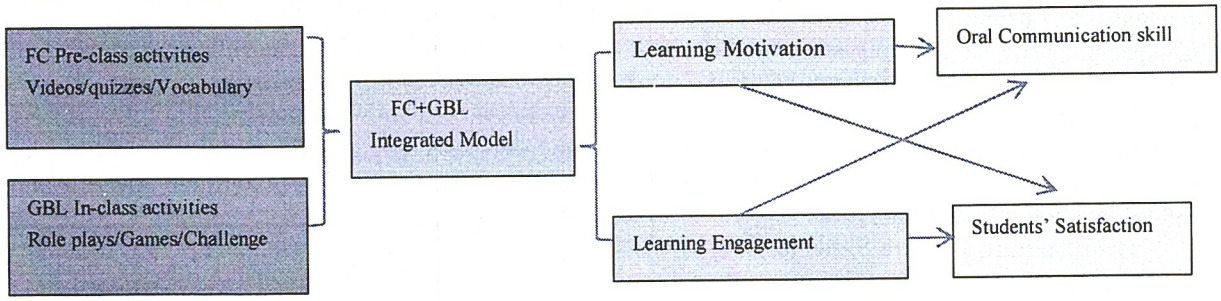


Figure 1: Conceptual Framework of the Study

Key Component Descriptions

1. Input (Instructional Strategy)

•Flipped Classroom (FC): Through pre-class activities (videos, quizzes, vocabulary tasks), students acquire basic knowledge and language structures, laying the foundation for in-class practice.

•Game-Based Learning (GBL): Through in-class activities (role-plays, scenario challenges, cross-cultural games), it creates an interactive, low-pressure learning environment.

•The two combine to form the FC + GBL Integrated Model, which serves as the starting point of the framework.

2. Mediating Process

Nan Yuxiang

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•Learning Motivation: Is stimulated by the preparatory nature of FC and the engaging nature of GBL.

•Learning Engagement: Is enhanced within the interactive GBL environment.

•These two variables are the key bridges through which FC+GBL influences the outcomes.

3. Learning Outcomes

•Oral Communication Skills: Representing core language competency.

•Student Satisfaction: Representing the learning experience and affective dimension.

4. Logical Flow (Arrows): Clearly indicates the unidirectional path of influence from "Instructional Strategy" to "Mediating Variables" to "Learning Outcomes". Under the joint action of motivation and engagement, students actively apply pre-learned knowledge in in-class practice, continuously improve their oral communication skills, and thus generate positive evaluations of the teaching method.

The intervention covers 14 tourism English themes, with each lesson following a three-phase structure: pre-class knowledge transmission (FC), in-class game-based application (GBL), and post-class consolidation (reflection tasks, extended games). This three-phase structure ensures the continuity and depth of learning, helping students systematically improve their oral communication skills.

Methodology

Participants

The population included 220 sophomore English majors (4 classes) at Jiaozuo Normal University (2024 academic year). A sample of 33 students (1 class) was selected via cluster random sampling, ensuring homogeneity in English proficiency and educational background. It should be noted that the small sample size of this study may limit the generalizability of the research results, and future research can expand the sample size and select multiple classes or multiple schools for research to improve the external validity of the results.

Research Design

A one-group pre-test and post-test design was adopted:

O1	X	O2

O1: Pre-test of oral communication skills (October 2025).
X: FC+GBL intervention (October–November 2025, 28 class hours).
O2: Post-test of oral communication skills and satisfaction questionnaire.

This design is appropriate for exploring the impact of an instructional intervention, as it allows direct comparison of pre- and post-intervention performance (Creswell, 2014). The use of the same test and scoring criteria ensured consistency and comparability of results. However, this design has certain limitations in internal validity. Observed improvements in students' oral communication skills may be influenced by maturation (natural improvement of students' language skills over time), testing effects (familiarity with the test format and content), or teacher expectancy (teachers' expectations of students affecting their performance) rather than the intervention alone. These limitations will be further discussed in the Limitations section.

This study employed a one-group pretest–posttest design, which may be subject to threats such as maturation and testing effects. Therefore, the findings should be interpreted cautiously, and future studies are recommended to adopt quasi-experimental or experimental designs with control groups.

Instruments

Nan Yuxiang

6

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1. Oral Communication Test

The test was designed to assess Tourism English-specific oral communication skills, with a 100-point scale. It included two components:

•Objective Section (40 points): Multiple-choice questions and fill-in-the-blank tasks to test vocabulary mastery (e.g., tourism terminology) and basic sentence pattern application (e.g., polite requests, cultural explanations).

•Subjective Section (60 points): Situational response tasks (e.g., handling tourist complaints), thematic introduction (e.g., explaining Chinese tea culture), and role-play (e.g., hotel check-in communication) to assess fluency, accuracy, and scenario adaptability.

1)Validity: To ensure content validity, the oral communication test and satisfaction questionnaire were reviewed by 5 experts (3 Tourism English instructors, 2 applied linguistics scholars), with an Index of Item Objective Congruence (IOC) > 0.5 for all items, indicating acceptable alignment with the intended constructs. In addition, construct validity was supported by the theoretical alignment between test components and the conceptual framework of this study. The objective section reflects linguistic knowledge and form-focused competence, while the subjective section (situational responses, thematic presentations, and role-plays) corresponds to communicative competence, fluency, accuracy, and scenario adaptability. This structure is consistent with widely accepted models of communicative language ability (Bachman & Palmer, 1996; Hymes, 1972).

2)Reliability: A pilot test with 15 similar students yielded a KR-20 reliability coefficient of 0.82, indicating high internal consistency. For the subjective section of the test, two independent raters were invited to score the students' performances using a standardized rubric. The inter-rater reliability was calculated using Cohen's κ, with a result of 0.78, indicating good consistency between raters. Two trained raters scored the subjective oral tasks, and inter-rater reliability reached an acceptable level (e.g., ICC >.80).

2. Satisfaction Questionnaire

A 5-point Likert scale (1=Very Unsatisfied to 5=Very Satisfied) covering teaching model acceptance, learning effect perception, and teaching support. Cronbach's alpha was 0.83, indicating good internal consistency.

1)Validity: Reviewed by 3 experts, with IOC > 0.5 for all items.

2)Reliability: A pilot test yielded a Cronbach's α coefficient of 0.83, indicating high internal consistency.

3. Lesson Plans

14 detailed lesson plans integrating FC and GBL, validated by experts with a mean appropriateness score of 4.59 (SD=0.53), categorized as "very high level."

Procedures

The 14-week intervention covered 14 Tourism English themes (e.g., traditional Chinese festivals, ancient architecture, Chinese cuisine), with 2 teaching hours per theme. The intervention followed the FC+GBL integrated framework:

Phase 1: Pre-class (FC Component, 30 minutes per theme)

•Teachers released a "preview package" via the Moodle platform, including:

1.5–8-minute micro-videos explaining core vocabulary, cultural background, and basic communication structures.

2. Quizlet vocabulary challenges to reinforce terminology (e.g., "dougong bracket system" for ancient architecture).

3. Padlet scenario prediction tasks (e.g., "What English expressions would you use to recommend local cuisine to foreign tourists?").

•Students completed the tasks independently, and teachers tracked progress via platform data. Completion of pre-class tasks unlocked "entry tickets" for in-class games.

Nan Yuxiang

7

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Phase 2: In-class (GBL Component, 90 minutes per theme)

•Warm-up (10 minutes): Kahoot! Vocabulary quick quizzes to review pre-class learning.

•Core Explanation (15 minutes): Teachers supplemented cross-cultural communication tips and complex sentence patterns (e.g., "To respect local customs, we suggest…").

•Gamified Practice (50 minutes): Interactive games aligned with the theme, such as:

1. Role-Play Games: E.g., "Hotel Service Challenge" (simulating check-in and complaint handling) and "Scenic Spot Master Competition" (explaining cultural attractions to "foreign tourists").

2. Cross-Cultural Challenges: E.g., "Cross-Cultural Tourism Escape Room" (decoding cultural taboo clues to solve tourism problems).

3. Collaborative Games: E.g., "Global Travel Agent Challenge" (designing English itineraries for clients with diverse needs).

•Feedback (15 minutes): Teachers provided real-time guidance, and ELSA Speak was used to detect pronunciation accuracy. Peer evaluation was conducted using a standardized rubric.

Phase 3: Post-class (Consolidation Component, 20 minutes per theme)

•Students completed extended tasks, including:

1. Recording a 2–3-minute English video (e.g., introducing hometown cuisine) and uploading it to Flipgrid.
2. Participating in online mini-games (e.g., "Vocabulary Solitaire") to reinforce learning.
3. Reflecting on learning gaps and completing a "tourism English error notebook."

Data Collection

1. Pre-test: Conducted in October 2025, the oral communication test was administered in a quiet classroom, with each student recorded for later scoring.

2. Intervention: Implemented from October to November 2025, with teachers monitoring progress and adjusting game difficulty based on student performance.

3. Post-test: Conducted in December 2025, using the same test format and scoring criteria as the pre-test.

4. Satisfaction Survey: Distributed immediately after the post-test, with 33 valid questionnaires collected (response rate = 100%).

Data Analysis

Statistical software was used for statistical analysis, with a significance level set at $\alpha = 0.01$:

1. Assumption Testing: Normality testing was conducted using the Shapiro-Wilk test, and the results showed that pre-test and post-test scores were normally distributed ($p > 0.05$). Outlier detection was performed using boxplots, and no outliers were found. These results indicate that the use of parametric tests (paired-samples t-test and one-sample t-test) is appropriate.

2. Descriptive Statistics: Calculated mean (M), standard deviation (SD), and 95% confidence intervals for pre-test, post-test, and satisfaction scores.

3. Paired-Samples t-test: Compared pre-test and post-test scores to examine skill changes (Research Objective 1).

4. One-Sample t-test: Compared post-test scores to the 70% criterion (70 points) to assess practical proficiency (Research Objective 2).

5. Descriptive Analysis: Summarized satisfaction scores to evaluate student perceptions (Research Objective 3).

6. Statistical Reporting: Adopted the APA statistical reporting standard to ensure consistency and standardization of statistical results.

Limitations of Methodology

1. Sample Size: The small sample size (33 students) may affect the generalizability of the research results. Future research should expand the sample size and select multiple samples from different

Nan Yuxing

8

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20XX
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Website: https://so03.tci-thaijo.org/index.php/IARJ/index

regions and schools to improve the external validity of the study.

2. Research Design: The one-group pre-test and post-test design has limitations in internal validity, and confounding variables such as maturation, testing effects, and teacher expectancy may affect the research results. Future research can adopt a quasi-experimental design with a control group to better isolate the effect of the intervention.

3. Rater Reliability: Although inter-rater reliability was reported for the subjective section of the oral communication test, the number of raters was only two. Future research can increase the number of raters to further improve the reliability of the scoring results.

4. Long-Term Effects: This study only measured students' oral communication skills immediately after the intervention, and did not explore the long-term retention and transfer of skills. Future research can conduct follow-up tests 6–12 months after the intervention to assess the long-term effects of the FC+GBL integrated method.

Results

Comparison of Oral Communication Skills Before and After Intervention

Table 1 presents the descriptive statistics and paired-samples t-test results for pre-test and post-test scores:

Group	N	Pre-test			Post-test			Mean Difference (95% CI)	t	df	p	Cohen's d
		M	SD	95% CI	M	SD	95% CI					
Experimental	33	58.76	5.06	(56.98, 60.54)	76.85	5.58	(74.92, 78.78)	18.09 (17.23, 18.95)	42.13**	32	<0.001	7.33

**p<.01

The results show that students' pre-test mean score was 58.76 (SD=5.06), indicating a low baseline level of oral communication skills. After the 14-week intervention, the post-test mean score increased to 76.85 (SD=5.58), a statistically significant improvement (t=42.13, p<0.001). The 95% confidence interval for the mean difference (17.23, 18.95) does not include zero, further confirming the robustness of the improvement. The mean difference is 18.09. The large effect size (d=7.33) is mainly due to the following factors: first, the FC+GBL integrated model combines pre-class knowledge learning and in-class practical application, realizing the organic connection between knowledge input and output; second, the tourism English-themed activities are closely combined with real work scenarios, improving the practicality and pertinence of learning; third, the game-based learning method enhances students' learning motivation and participation, making them more actively involved in oral practice.

Achievement of the 70% Proficiency Criterion

A one-sample t-test was conducted to compare post-test scores with the 70% criterion (70 points):

Table 2: One-sample t-test of Post-test Oral Communication Scores Against the 70% Criterion

Group	N	Test value	M	SD	95% CI	t	df	P
Experimental Group	33	70	76.85	5.58	(74.82, 78.88)	7.051**	32	<0.001

**p <.01

The results indicate that the post-test mean score (76.85) was significantly higher than the criterion (t=7.05, p<0.001), and the 95% confidence interval (74.82, 78.88) does not include 70, demonstrating that students' oral communication skills met and exceeded the functional proficiency standard after the intervention. In addition, statistical analysis of the number of students who achieved the 70% criterion

Nan Yuxiang

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showed that 29 out of 33 students (87.9%) reached or exceeded 70 points, indicating that the FC+GBL integrated method has a wide range of effectiveness in improving students' oral communication skills.

Student Satisfaction

Table 3: The Results of Students' Satisfaction After Learning Through Flipped Classroom Combined with Game-Based Learning Method

Items	M	SD	Satisfaction Level
Acceptance of the teaching model			
1. Game-based activities in class make me more willing to actively practice oral English	4.52	0.38	High level
2. Pre-class learning materials (videos, vocabulary lists) are helpful for in-class oral practice	4.45	0.42	High level
3. The combination of the flipped classroom and game-based learning is more interesting than traditional teaching	4.39	0.45	High level
4. The difficulty of game-based activities is well-matched with my English level	4.02	0.57	High level
5. The time arrangement of pre-class preview and in-class games is reasonable	3.98	0.61	High level
Total	**4.38**	**0.41**	**High level**
Perception of learning effects			
6. Through this teaching method, my oral expression fluency has improved significantly	4.39	0.45	High level
7. My ability to use tourism-specific vocabulary and sentence patterns has been enhanced	4.32	0.48	High level
8. I can better adapt to tourism communication scenarios after the intervention	4.23	0.51	High level
9. My cross-cultural communication awareness has improved	4.15	0.55	High level
10. This teaching method helps me build confidence in oral English communication	4.06	0.58	High level
Total	**4.23**	**0.53**	**High level**
Satisfaction with teaching support			
11. Teachers' guidance during in-class activities is timely and effective	4.31	0.49	High level
12. The technical tools (ELSA Speak, Kahoot!) used in teaching are easy to operate	3.95	0.63	High level
13. The feedback on oral performance (teacher's comments, peer evaluation) is helpful	4.28	0.50	High level
14. The pre-class and post-class learning resources provided by teachers are sufficient	4.19	0.52	High level
Total	**4.19**	**0.52**	**High level**
overall	**4.24**	**0.38**	**High level**

As shown in Table 3, the overall mean satisfaction score was 4.24 (SD=0.38), with high scores across all dimensions: teaching model acceptance (M=4.38, SD=0.41), learning effect perception (M=4.23, SD=0.53), and teaching support satisfaction (M=4.19, SD=0.52). Most students reported that game-based activities enhanced their motivation and reduced speaking anxiety, while pre-class FC

Nan Yuxiang

10

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materials effectively prepared them for in-class practice. It is worth noting that the satisfaction score for the difficulty of game-based activities (M=4.02) and the ease of operation of technical tools (M=3.95) is relatively low. This may be because some students have lower English proficiency and find it difficult to keep up with the pace of game activities, or they are not familiar with the operation of technical tools, which affects their learning experience. In future teaching practice, teachers can design hierarchical game activities according to students' English proficiency and provide sufficient training and guidance on technical tools to further improve student satisfaction.

Discussion

Improvement in Oral Communication Skills

The significant improvement in students' oral communication skills after the intervention reflects the positive effect of the FC+GBL integrated method. This finding is consistent with previous research indicating that flipped classrooms promote deeper learning by relocating lower-order cognitive processing to pre-class stages and reserving in-class time for higher-order, interactive activities (Bishop & Verleger, 2013; Prince, 2004). This aligns with Abeysekera and Dawson (2015), who argue that FC promotes active learning by shifting knowledge acquisition to pre-class time, allowing in-class sessions to focus on interaction and practice. In this study, pre-class micro-videos and vocabulary tasks help students master basic knowledge and language structures in advance, so that in-class time can be used for more in-depth oral practice activities. GBL further reinforces this by creating engaging, low-pressure environments where students can practice speaking without fear of judgment (Abdul Jabbar & Felicia, 2015). Game-based learning has been widely reported to enhance learners' intrinsic motivation and engagement by incorporating challenge, feedback, and meaningful goals, which in turn facilitates sustained language practice (Abdul Jabbar & Felicia, 2015; Kapp, 2012). For example, role-play games and cross-cultural challenges simulate real communication scenarios, enabling students to apply what they have learned in practice and continuously improve their oral communication skills. The synergy of FC and GBL enhances motivation, engagement, and skill mastery, leading to improved oral communication performance. When combined, flipped classroom and game-based learning create a synergistic learning environment in which structured pre-class input supports in-class experiential practice, leading to more effective knowledge internalization and skill transfer (Hung, 2018; Algayres & Triantafyllou, 2019).

The large effect size (d=7.33) indicates that the improvement was not only statistically significant but also educationally meaningful, addressing the long-standing issue of inadequate oral practice in Chinese English teaching. However, it is necessary to rationally view this large effect size. On the one hand, it may be due to the effectiveness of the FC+GBL integrated method; on the other hand, it may be affected by factors such as the small sample size and the pre-test baseline level. The pre-test mean score of students was 58.76, which is relatively low, so there is more room for improvement in the post-test. In future research, it is necessary to verify the effectiveness of the model with a larger sample size and different baseline levels of students.

Meeting the 70% Criterion

The post-test scores exceeding the 70% criterion and the high proportion of students (87.9%) achieving the criterion demonstrate the practical value of the FC+GBL method. The 70% benchmark was chosen based on Chinese university ESP course standards and previous research (Thai EFL Research Team, 2025), representing functional oral communication ability in professional contexts. This result suggests that the integrated teaching approach can effectively help students meet curriculum objectives and prepare for future careers in tourism and related fields, where practical oral communication skills are essential.

Compared with traditional teaching methods, the FC+GBL integrated method pays more attention to scenario-based practice and student participation, which is more in line with the requirements of ESP course teaching. In tourism English teaching, students not only need to master professional vocabulary

Nan Yuxiang

11

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and sentence patterns but also need to have the ability to communicate flexibly in real-world scenarios. The FC+GBL integrated method provides students with a large number of scenario simulation opportunities, helping them improve their scenario adaptability and cross-cultural communication competence, thus better meeting the proficiency criteria.

Student Satisfaction

The high satisfaction level (M=4.24) reflects students' positive perceptions of the FC+GBL method. Key factors contributing to satisfaction include the interactivity of game-based activities, the flexibility of pre-class FC learning (allowing students to learn at their own pace), and the relevance of Tourism English themes to real-world scenarios. As Shang (2023) notes, GBL addresses the motivation gap in flipped classrooms by transforming passive pre-class preparation into immersive, goal-oriented experiences. Students also valued the timely feedback from teachers and AI tools, which helped them identify and address weaknesses in real time, further enhancing their learning experience.

However, there are still areas for improvement in student satisfaction. For example, some students are not satisfied with the difficulty of game activities and the operation of technical tools. This reminds us that in the design and implementation of the FC+GBL integrated method, we should fully consider the individual differences of students, design hierarchical teaching activities and resources, and provide sufficient support and guidance for students with lower proficiency and poor technical operation ability. In addition, teachers should continuously optimize game design and technical tool selection based on student feedback to improve the overall teaching effect and student satisfaction.

Alternative Explanations and Confounding Variables

Although the results of this study show that the FC+GBL integrated method has a positive effect on improving students' oral communication skills, it is necessary to consider alternative explanations and confounding variables. First, the improvement of students' oral communication skills may be affected by maturation. During the 14-week intervention period, students' language skills may improve naturally with the accumulation of learning experience, not entirely due to the intervention of the FC+GBL method. Second, the testing effect may also play a role. Students may be more familiar with the test format and content in the post-test, leading to higher scores. Third, teacher expectancy may affect students' performance. Teachers may have higher expectations for students after using the new teaching method, and this expectation may be transmitted to students through words and behaviors, thus motivating students to perform better.

To reduce the impact of these confounding variables, this study used the same test format and scoring criteria in the pre-test and post-test, and teachers tried to maintain consistent attitudes and behaviors during the teaching process. However, it is difficult to eliminate the impact of these variables only through these measures. Future research can adopt a more rigorous research design, such as setting a control group that uses traditional teaching methods, to better isolate the effect of the FC+GBL intervention.

Research Limitations

Regarding the research design, this study employed a one-group pre-test and post-test pre-experimental design, which may limit the internal validity and generalizability of the findings. Observed improvements in students' oral communication skills could be influenced by confounding factors such as maturation (natural development of language skills over time), testing effects (familiarity with the test format), or teacher expectancy, rather than the FC+GBL intervention alone. Additionally, the small sample size (33 students from a single class) restricts the external validity of the results, making it difficult to generalize the conclusions to a broader population of English majors. Future research could benefit from adopting a quasi-experimental or experimental design with a control group to further validate the comparative effectiveness of the integrated FC+GBL approach. Expanding the sample size to include multiple classes or schools and incorporating long-term follow-up assessments would also help address the limitations of the current study and strengthen the robustness of the research findings.

Nan Yuxiang

12

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Old ISSN 2774-0374; New ISSN 2985-2749
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Recommendations

Practice Recommendations

1. Integrate FC+GBL into Regular Teaching in a Context-Specific Manner: Foreign language teachers should design theme-specific FC+GBL activities for Tourism English and other ESP courses based on the characteristics of the courses and students' actual situations. Pre-class resources should be hierarchical (basic/advanced) to cater to different proficiency levels, while in-class games should align with learning objectives and industry scenarios. For example, in business English courses, pre-class materials can focus on business negotiation vocabulary and sentence patterns, and in-class games can simulate business negotiation scenarios.

2. Optimize Game Design to Balance Fun and Rigor: Games should balance fun and rigor, with clear scoring criteria and progressive difficulty. For example, start with simple vocabulary quizzes and progress to complex role-plays and cross-cultural challenges. At the same time, game design should fully consider students' interests and characteristics to improve their participation and learning motivation. In addition, teachers should flexibly adjust the difficulty and progress of games according to students' on-site performance to ensure that each student can gain a sense of achievement in the game.

3. Strengthen Technical Support and Training: Use AI tools (e.g., ELSA Speak) for real-time pronunciation feedback and online platforms (Kahoot!, Flipgrid) for extended practice. Before using technical tools, teachers should provide sufficient training and guidance to help students master the operation methods. For students who have difficulty using technical tools, teachers should provide one-on-one help. At the same time, teachers should select user-friendly and stable technical tools to ensure the smooth progress of teaching.

4. Provide Targeted Teacher Training: Provide teachers with training on FC and GBL design to ensure effective implementation, including how to create high-quality micro-videos, design scientific and reasonable games, and provide targeted feedback. In addition, teachers should be encouraged to conduct teaching research and exchange activities, share experience and lessons in the application of FC+GBL, and continuously improve their teaching ability.

5. Pay Attention to Individual Differences and Provide Personalized Guidance: Teachers should fully understand students' English proficiency, learning styles, and interests, and provide personalized learning suggestions and guidance for different students. For example, for students with lower English proficiency, teachers can assign simpler pre-class tasks and provide more guidance and encouragement in in-class activities; for students with active learning styles, teachers can design more challenging game activities to meet their learning needs.

Research Recommendations

1. Expand Research Scope and Objects: Apply the FC+GBL model to other ESP fields (e.g., business English, legal English) and non-English majors to explore its broader applicability. At the same time, select students from different regions, different types of schools, and different grade levels as research objects to improve the external validity of the research results.

2. Explore Long-Term Effects and Skill Transfer: Conduct follow-up studies 6–12 months after the intervention to assess whether students' oral communication skills are retained and transferred to real-world contexts. For example, investigate students' performance in internships or actual work to evaluate the practical effect of the FC+GBL model.

3. Examine Moderating Variables: Investigate how variables such as English proficiency, learning style, and cultural background influence the model's effectiveness. For example, explore whether the FC+GBL model is more effective for students with a certain learning style, or whether there are differences in the effectiveness of the model for students from different cultural backgrounds.

Nan Yuxing

12

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4. Combine Quantitative and Qualitative Methods: Use interviews, focus groups, and reflective journals to gain deeper insights into students' learning experiences and perceptions. For example, conduct in-depth interviews with students to understand their views on the FC+GBL model, their learning gains and difficulties, and use this information to further optimize the model.

5. Improve Research Design and Control Confounding Variables: Adopt a quasi-experimental design with a control group to better isolate the effect of the FC+GBL intervention. At the same time, use covariance analysis and other statistical methods to control confounding variables such as students' baseline proficiency and learning motivation, so as to improve the internal validity of the research.

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Nan Yuxiang

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Acceptance Letter for Publication

To **Nan Yuxiang, Phithack Nilnopkoon and Kanreutai Klangphahol**

Following the submission of your manuscript entitled **"Study on Improving Oral Communication Skills of the second-year students of English Majors in Henan Province via Flipped Classroom Combined with Game-Based Learning"** to the *Interdisciplinary Academic and Research Journal (Online)*, Old ISSN: 2774-0374 (Online) and New ISSN: 2985-2749 (Online), we are pleased to inform you of the outcome of the editorial and peer-review process.

The *Interdisciplinary Academic and Research Journal (IARJ)* is indexed by the **Thailand Citation Index (TCI Tier 2)** and is a member of **Crossref (DOI)**. In addition, articles published in the journal are retrievable through recognized international academic databases and library systems, including **Google Scholar, Semantic Scholar, Scilit, Harvard Library, and OUCI (Open Ukrainian Citation Index)**.

Your manuscript has undergone a rigorous peer-review process and was evaluated by three expert reviewers in the relevant field from various external institutions, all of whom are independent and have no affiliation with the author's organization. Based on the reviewers' evaluations and recommendations, the Editorial Board is pleased to confirm that your article has been **accepted for publication** in the *Interdisciplinary Academic and Research Journal*.

The article is scheduled for publication in **Volume 6, Issue 6 (November–December 2026)**. The publication status and progress of the article can be followed online at: https://so03.tci-thaijo.org/index.php/IARJ/about

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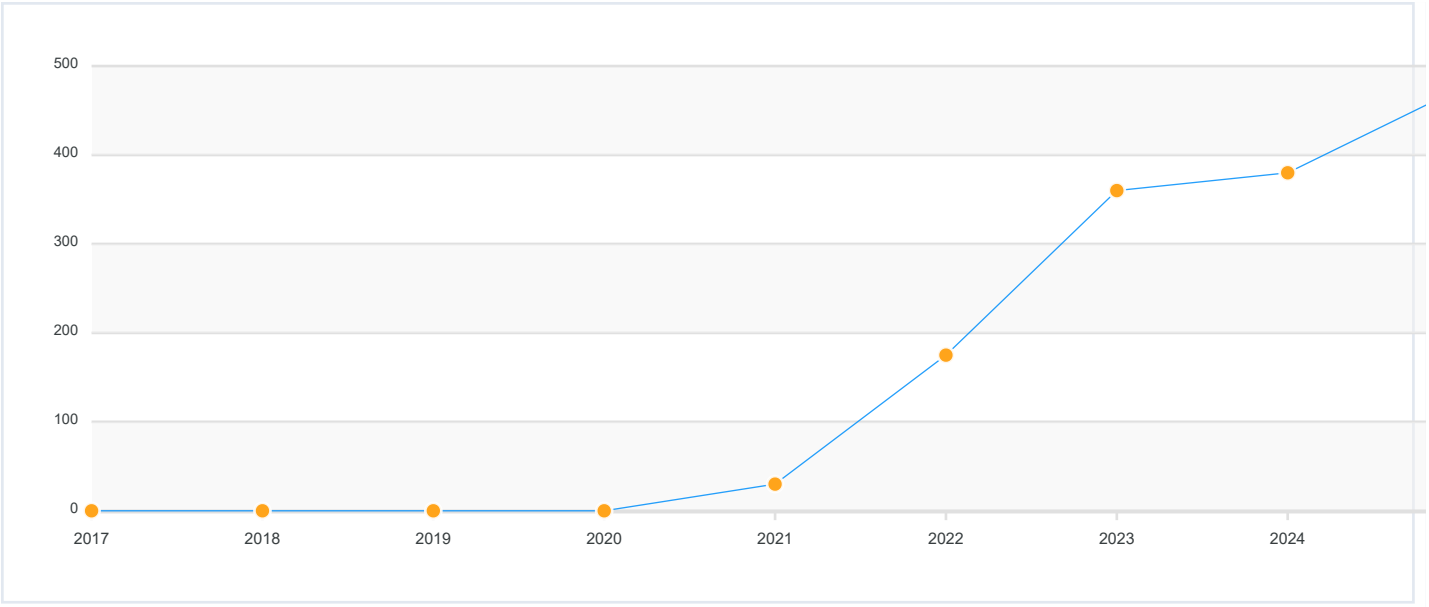
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