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The current issue features articles that address significant topics in the fields of language, education and related disciplines. A total of five articles are presented, comprising two research articles and three academic articles. Each contribution offers valuable insights that advance academic development and support practical applications. The first article is "Filial Piety in Thai-Chinese Communities A Cultural Analysis through the Film *LAHN MAH*". The second article is "DeepSeek V3/R1 in International Chinese Language Education Opportunities Challenges and Solutions". The third article is "Specific Learning Disorders in Contemporary Education A Call for Early Intervention Inclusive Practices and Teacher Training". The fourth article is "Cross-Cultural Pedagogy of Chinese Sachet Culture in Thai Primary Schools A Case Study of Bamrungwittaya School". The fifth article is "The Application of Learning Theories for Teaching Thai Language".

The editorial team of Nakhon Ratchasima Journal of Humanities and Social Sciences (NJHSS) would like to express our sincere gratitude to all of authors for their contributions, as well as to the esteemed reviewers for their



valuable guidance that help maintain the high quality and standard of our journal.

We sincerely hope that this issue will be beneficial to all readers and serve as an inspiration for further study and research in the future.

Thank you all for supporting our journal.

(Dr. Teerawat Karnsopa)

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Editor of Nakhon Ratchasima Journal of

Humanities and Social Sciences



Phitchayawee Thongklang

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Filial Piety in Thai-Chinese Communities: A Cultural Analysis through the Film *LAHN MAH*

Yingge Chen¹ Kullayanee Kittopakarnkit²
Zhejiang Yuexiu University¹⁻²
Zhejiang Shaoxing, China
E-mail: 1149245107@qq.com

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Abstract

This study investigates the cultural representations of filial piety in Thai-Chinese communities through an analysis of the 2024 film LAHN MAH. Using qualitative methods that combine film content analysis with in-depth interviews of six Chinese viewers across different age groups (10-25, 26-40, and 41+ years) with two interviewees per group, the research explores how contemporary cinema mediates between traditional values and modern realities. The findings identify three primary expressions of filial piety: ritual practices including ancestor veneration and Qingming Festival(清明节) observances, daily intergenerational care practices, and the integration of Confucian ideals with Thai Buddhist traditions. Generational differences emerged in audience interpretations, with younger viewers highlighting technological adaptations, working-age adults emphasizing cultural preservation, and older respondents focusing on foundational Confucian principles. The research contributes to intercultural media studies by demonstrating how cinematic narratives facilitate cross-cultural dialogue while preserving ethnic identity in diaspora communities. The study advances understanding of



cultural hybridity in transnational contexts through its examination of cinema as both a reflective medium and dialogic space for traditional values in contemporary society.

Keywords: Filial Piety, Thai-Chinese Communities, *LAHN MAH*

Introduction

Filial piety, as a fundamental virtue in both Chinese Confucianism and Thai Buddhist traditions, has long served as a cultural cornerstone in Thai-Chinese communities. The concept's dual heritage—rooted in Confucian familial hierarchy and Buddhist gratitude principles—creates a unique cultural hybridity that warrants scholarly attention. Lin's (2021) case study on Thai-Chinese families reveals a three-generation assimilation pattern: first-generation immigrants retain traditional practices, the second generation shows gradual acculturation, and the third generation nears complete assimilation. Concurrently, Chinese traditions undergo localized adaptation, integrating into Thailand's cultural fabric through bidirectional negotiation. Sa-Nguanklang (2021) highlights how Confucian gratitude—expressed through filial devotion to parents and ancestors—persists among Thai-Chinese communities, particularly in Pak Phanang, Nakhon Si Thammarat. Key festivals like Chinese New Year (春节), Tomb Sweeping Day, and the Spirit Festival reflect two Confucian principles: gratitude to parents and gratitude to ancestors, while also incorporating Thai Buddhist values.

This study selects the 2024 film *LAHN MAH* as its primary case study due to: (1) its commercial success as Thailand's highest-grossing family drama (469 million baht), demonstrating mainstream cultural resonance; (2) its unique thematic focus on third-generation Thai-Chinese identity



negotiation; and (3) its rare simultaneous release in China and Thailand, signaling transnational cultural relevance. The film's portrayal of filial piety in Thai-Chinese families offers particularly rich material for analyzing how traditional values adapt to modern contexts through intergenerational conflicts, ancestral rituals, and contemporary family dynamics.

While previous research has explored filial piety through traditional festivals like Qingming (清明节) (Chitwiboon & Tepsing, 2017) or literary texts, cinematic representations remain underexplored, a gap this study addresses. The research builds upon Khamphuang's (2020) work on Chinese proverbial expressions of filial duty and Chayangkura Na Ayutthaya (2022) findings on Thai youth's ethical development, while extending the conversation to visual media's role in cultural transmission.

LAHN MAH's narrative about a Thai-Chinese grandson's journey from self-interest to genuine filial devotion offers rich material for analyzing how traditional values adapt to modern contexts. The film's exploration of intergenerational conflicts, ancestral rituals, and contemporary family dynamics provides insights into the evolving nature of filial piety in Southeast Asian Chinese diaspora communities. This study employs qualitative content analysis of the film alongside audience research with Chinese viewers across three generations (10-25, 26-40, and 41+ years), revealing how different age groups interpret these cultural representations.

The investigation holds particular relevance as Thai-Chinese communities navigate the tension between preserving cultural heritage and adapting to globalization. By focusing on cinema as a medium that both reflects and shapes cultural values, this research contributes to broader discussions about cultural preservation in transnational contexts. The findings



will illuminate how shared Asian values like filial piety facilitate intercultural understanding between China and Thailand, while offering new perspectives on the mediation of traditional virtues through popular media.

Research Objectives

- 1. To analyze filial piety representations in *LAHN MAH*, focusing on ritual practices, intergenerational care, and Confucian-Buddhist hybridity in Thai-Chinese contexts.
- 2. To examine how Chinese audiences of different generations interpret the film's portrayal of filial values.

Research Ouestions

- 1. How does *LAHN MAH* represent filial piety through cultural rituals (e.g., ancestor worship, Qingming Festival (清明节)) and daily family dynamics in Thai-Chinese communities?
- 2. What are the key differences in how younger (10-25), workingage (26-40), and older (41+) Chinese audiences perceive filial piety in the film?
- 3. To what extent does the film reflect the hybridity of Thai-Chinese filial values, combining Confucian ethics with Thai Buddhist influences?

Research Scope

This study examines the cultural representations of filial piety in the Thai-Chinese community through an analysis of the 2024 film *LAHN MAH*, focusing specifically on the portrayal of Thai-Chinese characters to explore how traditional values are negotiated in contemporary cinematic narratives.



The investigation is confined to the film's 2024 release version, analyzing its narrative content and socio-cultural implications without comparative analysis with other media or historical contexts. This study does not include comparative analysis with other films or historical depictions of filial piety.

Research Methodology

This study adopts a qualitative research design implemented through three sequential phases. In the preliminary phase, a systematic literature review was conducted to establish the theoretical foundation, examining scholarly works on filial piety concepts within both Thai and Chinese cultural contexts. This review encompassed academic articles, books, and relevant media analyses to identify key theoretical frameworks and research gaps.

The second phase involved dual data collection methods. First, a comprehensive content analysis of *LAHN MAH* (2024) was performed, employing a three-stage viewing process with timecode documentation of key scenes. The film was examined through the lens of Hybridity Theory, focusing on: (1) symbolic narratives (e.g., character transformation), (2) visual motifs (ritual objects/color schemes), and (3) dialogues, with findings later integrated with audience interview data. Particular attention was given to scenes depicting ritual practices, intergenerational interactions, and cultural hybridity.

Second, semi-structured interviews were conducted with six Chinese participants purposively selected based on predetermined criteria: (1) Chinese nationality, (2) having viewed *LAHN MAH* in its entirety, and (3) representing three generational cohorts (10–25, 26–40, and 41+ years). The interview protocol was validated by three experts in cultural studies prior to implementation, achieving an Index of Item Objective Congruence (IOC) of 0.948, confirming robust content



validity. Participants were recruited through snowball sampling without restrictions on gender, education level, or occupation to ensure diverse perspectives.

The final phase employed thematic analysis to identify patterns across both film content and interview transcripts. Data were coded inductively and categorized into themes related to filial piety manifestations and generational interpretations. Findings were interpreted through descriptive analysis aligned with the established theoretical framework.

This study has three main limitations: 1) The small interview sample size (*n*=6) may limit the generalizability of the audience perspectives. 2) The participants consisted exclusively of Chinese viewers, excluding Thai-Chinese audiences who might offer distinct cultural interpretations. 3) The focus on a single film restricts comparative analysis with other media representations of filial piety.

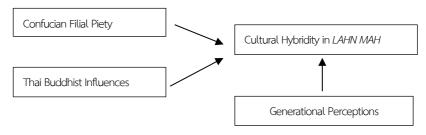
Literature Review and Research Framework

The study of filial piety in Thai-Chinese society is unique due to its blending of Confucian philosophy from China and Buddhist principles from Thailand. Previous research indicates that filial piety in Chinese culture emphasizes being the "foundation of virtue" (Khamphuang, 2020) and maintaining family relationships (Lin, 2021). In contrast, Thai interpretations of filial piety rooted in Buddhism regard it as both an "auspicious blessing" and a "mark of good character" (Sa-Nguanklang, 2021). However, modern societal changes have led Thai youth to drift away from traditional values due to materialistic influences (Chayangkura Na Ayutthaya, 2022), necessitating adapted approaches to moral cultivation through integrated methods such as community-based practices and social interaction.

From a media and cultural perspective, research on television dramas and films reveals their role as "negotiative spaces" between traditional values and modernity (Rujsawat Krongbhumin & Hinviman, 2023). Meanwhile, studies on



festivals like Qingming (清明节)and Chinese New Year (春节)demonstrate how these traditions preserve ancestral filial piety despite ritual adaptations to contemporary lifestyles (Chitwiboon & Tepsing, 2017). Nevertheless, research examining filial piety through film remains limited, particularly regarding Thai-Chinese cultural representations in movies like *LAHN MAH* - a modern medium reflecting the dynamics of filial piety amid social transformation.



Conceptual Framework

Research Results

The analysis of the film *LAHN MAH* and interviews with viewers from different age groups reveal distinct manifestations of filial piety within Thai-Chinese communities, demonstrating a dynamic process of cultural hybridity that evolves through three interconnected dimensions: ritual adaptation, behavioral synthesis, and generational embodiment.

${\it 1.}\ {\it Manifestations}\ {\it of}\ {\it Filial}\ {\it Piety}\ {\it among}\ {\it Thai-Chinese}\ {\it Descendants}$ in the ${\it Film}$

The film *LAHN MAH* portrays various dimensions of filial piety in Thai-Chinese culture through its unique cultural hybridity:



1.1 Respect for Elders as Depicted in the Film



Scene from the film depicting ancestor worship and tomb cleaning (02:06)

In LAHN MAH, ancestor worship and tomb cleaning rituals reflect deep reverence for ancestors and the maintenance of familial harmony. The act of making offerings—such as rice, fruits, or the deceased's favorite foods—serves both to seek blessings and express gratitude while reinforcing family bonds. Tomb cleaning symbolizes the removal of misfortune, paving the way for prosperity and happiness. These practices are prominently observed during significant occasions such as the Qingming Festival(清明节), a traditional Thai-Chinese custom involving grave cleaning, ancestor veneration, and incense burning to honor departed family members.

1.2 Care for Parents and Family in the Film



Scene from the film LAHN MAH depicting elderly care (09:29) and (29.34)



The film's portrayal of elderly care demonstrates behavioral synthesis, blending Chinese filial duty with Thai cultural norms. The physical care and financial support characteristic of Chinese tradition merge with the Thai concept of "kreng jai" (consideration), seen in the gentle speech and emotional attentiveness shown toward elders. This hybrid caregiving model strengthens family bonds while respecting both cultural frameworks.

- 1) Elderly Care in *LAHN MAH* The film highlights elderly care as a central theme, emphasizing respect and devotion toward aging family members, particularly the grandmother. Close attention is given to both physical and emotional well-being, ensuring comfort and warmth in their later years. The portrayal of intergenerational relationships underscores the transmission of respect for tradition and the continuity of familial love.
- 2) Visiting Elders in *LAHN MAH* Visiting elders, especially during festivals or significant events, is depicted as an essential gesture of respect and gratitude. These visits go beyond mere formality, involving gift-giving, shared meals, and meaningful conversations that strengthen emotional ties. Such interactions bridge generational gaps and reassure elders of their valued place in the family, reflecting the deep cultural significance of maintaining kinship in Thai-Chinese communities.
- 3) Assisting Elders in Daily Life in *LAHN MAH* The film illustrates practical support for elders through tasks such as cooking, grocery shopping, and household chores. These acts of service foster intimate familial bonds and demonstrate love and concern. Beyond mere routine, these actions embody emotional solidarity, responsibility, and the preservation of moral traditions. Such caregiving reduces stress for elders, promotes family unity,



and nurtures mutual understanding and respect across generations, creating a supportive and harmonious domestic environment.





Scene from the Film Depicting Funeral Rites for Elders (01.13.28)

Funeral Arrangements for Elders in *LAHN MAH* The film depicts funeral rites as a profound expression of respect and gratitude toward the deceased. The meticulous preparation of ceremonies and reverence for the departed highlight the cultural importance of honoring ancestors. In Thai-Chinese families, funeral customs not only pay homage to the dead but also reinforce family cohesion, reminding members of their duty to uphold filial values and transmit them to future generations.

This analysis demonstrates how *LAHN MAH* serves as a cultural text that articulates the enduring significance of filial piety in Thai-Chinese communities, blending traditional practices with contemporary familial dynamics.

2. Audience Perspectives on Filial Piety Culture

This study conducted in-depth interviews with six viewers of LAHN MAH, divided equally across three age groups: adolescents (10-25 years),



working-age adults (26-40 years), and middle-aged respondents (41+ years). The research aimed to examine perceptions of filial piety within Thai-Chinese familial contexts and compare them with traditional Chinese filial values.

2.1 Age-Specific Interpretations of Filial Piety as Portrayed in $\it LAHN$ $\it MAH$

The analysis revealed distinct generational perspectives Adolescent viewers (10- 25 years) focused on protagonist M's character development from self-interest to genuine filial devotion. As Lee (15/01/2025) noted, "When the grandmother fell ill, M's anxiety and tension... showed his transformation from profit-driven to truly understanding and respecting elders". This group particularly valued daily expressions of filial piety - accompanying elders to the bank or playing cards - interpreting these as "reflections of emotional care" (Lee, 15/01/2025). They also emphasized participation in traditional festivals as crucial for cultural transmission.

Working-age respondents (26-40 years) discerned deeper cultural systems through ritual practices. Lin (18/01/2025) observed, "The Qingming Festival (清明节) tomb visits... represent integral components of filialpiety systems". This group appreciated M's gesture of "using his grandmother's savings to purchase her luxurious burial plot" as embodying profound cultural respect that bridges living and ancestral relationships.

Middle-aged participants (41+ years) emphasized Confucian filial foundations. Wang (14/01/2025) stated, "The grandmother epitomizes traditional filial culture... reflecting descendants' duty to care for parents". They praised M's "exhausting effort to buy the fried fish his grandmother desired" as exemplifying action-oriented piety over verbal expressions, while



valuing ancestral rites like Qingming (清明节) ceremonies as cultural preservation mechanisms.

All groups concurred that the film authentically portrayed filial piety's multidimensional nature through age-specific lenses: adolescents focused on character arcs, working adults on cultural systems, and older respondents on foundational principles - demonstrating the film's cross-generational communicative efficacy.

 Table 1

 Generational Perspectives on Filial Piety in LAHN MAH

Category	Adolescents (10-25	Working-age (26-40	Middle-aged (41+	
	years)	years)	years)	
Primary	Character	Cultural systems	Confucian	
Focus	transformation		foundations	
Key	M's anxiety showed his	Qingming visits	Grandmother	
,	,	represent filial	epitomizes tradition	
Quote		systems (Lin)	(Wang)	
Ritual	Technology-enabled	Hybrid Thai-Chinese	Traditional Chinese	
Emphasis	practices (video calls)	rituals	ceremonies	
Daily	Emotional care	Action-based respect	Duty fulfillment	
Piety	(accompanying elders)	(financial support)	(specific tasks)	
Cultural	Accept modern	Analyze synthesis	Preserve core values	
Hybridity	adaptations	mechanisms	rieserve core values	

2.2 Comparative Views on Chinese-Thai Filial Culture

Analysis of audience perspectives revealed Adolescents recognized filial piety's modern adaptations, noting "While Thai-Chinese communities maintain filial traditions, their forms and degrees of practice vary" (Lee, 15/01/2025). They valued technology-enabled care (e.g., video



calls) alongside traditional rituals that "strengthen family bonds", while acknowledging modernization challenges like geographical dispersion.

Working adults highlighted cultural roots, with Lin (18/01/2025) noting "We share Asian commonalities whether in China or Thailand". They identified filial piety as "society's tacit norm", observing similar Chinese and Thai-Chinese tendencies toward action-based (versus verbal) expressions, alongside generational shifts toward "more cautious elder treatment".

Middle-aged respondents affirmed core Confucian continuities: "The fundamental values remain identical whether in Thailand or Chinarespect, love, and parental care" (Wang, 14/01/2025). They noted the evolution from financial support to emotional companionship, exemplified by M "conversing with and comforting his lonely grandmother", and recognized the film's role in stimulating "emotional and cognitive reflection" about filial duties.

Key consensus points included: 1) continuity of Chinese filial culture in Thai-Chinese society, 2) traditional-modern hybridity, 3) cinema's role in filial consciousness-raising, and 4) fundamental Chinese-Thai cultural similarities. However, each group's distinct focus - digital adaptation (adolescents), cultural roots (working adults), or traditional principles (middle-aged)-revealed the dynamic complexity of filial piety in transnational contexts.

Discussion of Results

This study reveals that *LAHN MAH* transcends its role as mere entertainment, functioning as a cultural bridge between Chinese and Thai value systems. Particularly within the cultural exchange framework of the



Belt and Road Initiative, the film's portrayal of filial piety illuminates key intercultural commonalities as interpreted through generational lenses:

- 1. Adolescent viewers (10- 25 years) perceived the dynamic adaptation of filial piety in the digital age. As Lee (15/01/2025) observed, "Technology enables filial expression across distances", yet this group simultaneously valued traditional rituals. Their perspectives demonstrate the emerging hybridity between ancestral values and modern lifestyles.
- 2. Working-age respondents (26-40 years) interpreted the film through cultural preservation frameworks. Lin (18/01/2025) emphasized that "Chinese and Thai-Chinese similarities lie in action-oriented rather than verbal expressions of filial duty". Their focus on familial rituals as value-transmission mechanisms aligns with Jankrajangjaeng and Phuetphum (2020) research on tradition maintenance in Thai-Chinese communities.
- 3. Middle-aged participants (41+ years) applied classic Confucian paradigms, with Wang (14/01/2025) asserting that "Filial piety constitutes a fundamental duty" an interpretation that not only resonates with Lin's (2021) scholarship on Confucian philosophical foundations, but importantly extends beyond Chitwiboon & Tepsing's (2017) focus on ritual economics by uncovering deeper philosophical continuities underlying surface-level ritual adaptations.

The research confirms the cultural hybridity of Thai-Chinese filial piety, blending Confucian ethics with Thai Buddhist influences as documented by Sa-Nguanklang (2021). Significantly, the film serves as a negotiative space between tradition and modernity, particularly evident in three transformations that is The shift from material to emotional support,



The adaptation of rituals for urban lifestyles and The incorporation of technology in intergenerational relationships.

These findings significantly advance transnational scholarship on filial piety, a critical yet under-researched dimension in cross-cultural studies. The study makes three substantive contributions: first, it addresses a critical gap in media studies by examining contemporary cinematic representations of filial values; second, it develops practical frameworks for cultural preservation in an era of globalization, with particular relevance to strengthening Sino-Thai relations; and third, it demonstrates how the film serves as both a cultural mirror reflecting societal values and an innovative platform for intergenerational dialogue. This dual functionality positions cinema as a potential policy instrument for enhancing intercultural understanding among Belt and Road Initiative member states, while providing empirically grounded strategies for safeguarding traditional values amidst rapid modernization.

Recommendations

This study offers several practical suggestions worth considering. For educational purposes, films like *LAHN MAH* could be used as teaching materials to show real-life examples of filial piety and encourage intergenerational discussions. Filmmakers might want to portray filial piety in more relatable ways, blending traditional customs with modern lifestyles to help younger audiences connect with these values. Relevant organizations could support collaborative Thai-Chinese film productions that explore filial piety from contemporary perspectives, serving as cultural bridges. Future research could examine how Thai-Chinese communities in



different regions practice filial piety, and how modern technology affects family relationships.

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Name: Yingge Chen

Highest Education: Bachelor's Degree

Affiliation: Zhejiang Yuexiu University



Name: Kullayanee Kittopakarnkit

Highest Education: Doctor's Degree

Affiliation: Zhejiang Yuexiu University



DeepSeek V3/R1 in International Chinese Language Education: Opportunities, Challenges, and Solutions

Runci Zhang¹ Ying Zhang²
Hangzhou Dianzi University¹⁻²
Zhejiang Hangzhou, China
E-mail: 1528937348@qq.com

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Abstract

The rapid development of artificial intelligence technology has injected new vitality into traditional international Chinese language education. This study focuses on the potential application of the DeepSeek V3/R1 large language models (LLMs) in the field of international Chinese language education. Through the combination of theory and data analysis, it systematically explores its value in empowering education, practical challenges, and corresponding strategies. The research results indicate that DeepSeek V3/R1 provides users with personalized learning and a visual learning platform, enhancing students' learning capabilities and improving teaching effectiveness. Simultaneously, DeepSeek V3/R1 possesses inherent technical limitations and poses challenges to the traditional education system and learners' autonomy. This study aims to provide new insights and practical references for the innovative development of international Chinese language education empowered by artificial intelligence.

Keywords: Artificial Intelligence (AI), large language models (LLMs), DeepSeek V3/R1, International Chinese Language Education, Educational



Transformation

Introduction

Launched by Hangzhou DeepSeek V3/R1 in January 2025, the generative AI tool DeepSeek V3/R1 demonstrates significant educational potential through its natural language processing (V3 model), reasoning (R1 model), and web search capabilities (Han et al., 2025), alongside advantages in performance, open-source accessibility, and cost efficiency. While GPT-4 shows established value in English education (Liu, 2024b), dedicated AI tools for international Chinese education remain underdeveloped, positioning DeepSeek V3/R1 as a pioneering solution.

With Chinese integrated into national education systems across 70 countries (25 million learners outside China) and over 40 million HSK test-takers (Dong, 2021), DeepSeek V3/R1's intervention addresses the global shortage of 44 million teachers (UNESCO, 2023) in international Chinese education.

Current challenges include the absence of ethical frameworks for AI tools (e.g., DeepSeek V3/R1) and standardized usage protocols in teaching contexts like Confucius Institutes. Establishing governance mechanisms is critical to leverage opportunities, mitigate risks, and achieve sustainable development.

Literature Review

The integration of large language models (LLMs) and education field has attracted widespread attention. With the precedent of ChatGPT-4's positive demonstration in enhancing the English proficiency of higher education students (Liu, 2024b), as the latest generation of domestically



produced large language models, it is highly anticipated whether DeepSeek V3/R1 can become a leader in the international Chinese education field.

Core advantage: DeepSeek V3/R1 has lower resource requirements and higher generation efficiency, render it more suitable for widespread educational applications (Kerimbayev et al., 2024). Furthermore, compared to traditional language-teaching LLMs, it has more advantages in data-driven personalized adaptability and provides 24/7 real-time feedback, breaking through temporal and spatial limitations. These features make DeepSeek V3/R1 as a highly efficient tool for advancing language acquisition (Liu, 2024a)

Risks and Challenges: AI systems may generate inaccurate or incorrect responses during operation (Zhang & Premy, 2025), potentially impacting users' cognitive development. Currently, DeepSeek V3/R1's functionality remains incomplete and cannot meet diverse learning needs. Additionally, the insufficient quantity and low quality of Chinese corpora (W3Techs, 2025) further diminish user experience. The extensive use of DeepSeek V3/R1 can also have a certain impact on educators: the finite cognitive capacity of the human brain cannot rival technology's computational power, which potentially undermining teachers' authority and triggering technology-related anxiety (Wang et al., 2022).

Technology is a double-edged sword, bringing us convenience but also causing certain adverse effects. The strong influence of AI enable us to rethink and innovate. However, AI has never been able to replace human unique qualities such as creativity, emotional intelligence, critical thinking, and social interaction (Zhang & Premy, 2025).



Methodology

This study adopts literature analysis and data integration to compare the performance and user experience of DeepSeek V3/R1 with other LLMs. Combining with current applications of DeepSeek V3/R1 in international Chinese language education, we analyze the opportunities, challenges, and future prospects of DeepSeek V3/R1 in empowering this field, and propose reference recommendations.

Opportunities for DeepSeek V3/R1 Empowering International Chinese Language Education

1. Empowering Personalized Chinese Learning

Global technological advancements are accelerating educational transformation, and pedagogical differentiation profoundly reshaping traditional classroom instruction. This shift necessitates adapting teaching content to learners' needs, preferences, and knowledge acquisition rates (Reddy et al., 2025). Liu et al. (2023a) empirically demonstrated that AI language models can adapt to individual learning requirements and paces, thereby promoting theoretical knowledge acquisition, motivation, and learning attitudes.

Based on a deep analysis of cross-linguistic transfer patterns and second language acquisition pathways, DeepSeek V3/R1 achieves exceptional pedagogical compatibility (9.0/10, significantly surpassing GPT-4's 8.0). It dynamically generates targeted materials for multimodal personalized learning needs (teacher-led, collaborative, and self-directed modalities). Furthermore, DeepSeek V3/R1 demonstrates robust iterative learning capabilities (Kerimbayev et al., 2024) through its cyclical refinement framework: Personalized Design - Teaching Implementation - Real time Evaluation



- Targeted Optimization. This establishes a precision-optimized personalized learning network for global learners.

2. Breaking the "Spatio-Temporal Constraints of Teacher Resources"

Traditional international Chinese language education has long been constrained by the spatiotemporal limitations of in-person instruction (Liu et al., 2023b). DeepSeek V3/R1 overcomes these barriers by reconstructing teacher supply models through AI technology.

At the level of teacher resource allocation efficiency, AI undertakes standardized tasks such as homework grading and Q&A support, enabling teachers to focus on creative teaching activities like cross-cultural communication strategy design and cognitive skill cultivation.

In terms of faculty distribution, the integration of AI technology with learning platforms delivers diverse teaching models: combining professional courses, intelligent tutoring, and digital training, to resource-deprived regions, thereby bridging the geographical education gap.

For cross-time-zone collaboration, DeepSeek V3/R1 as an always-accessible AI learning companion, eliminating time difference barriers. This allows global students to receive instant feedback anytime, anywhere while learning Chinese.

This human-AI collaborative model breaks physical constraints, constructing a dynamic pedagogical network that interconnects learners worldwide through diverse learning scenarios.



Challenges of Applying DeepSeek V3/R1 to International Chinese Language Education

1. Multidimensional Challenges of Technical Functional Limitations

DeepSeek V3/R1 operates primarily through text-based interactions. As illustrated in the model architecture diagram (see Figure 1), it is a Transformer-based model specifically designed and optimized for text tasks. While the current version lacks native support for speech input and image recognition, it relies on OCR (Optical Character Recognition) technology to extract legible text from images for subsequent processing (see Figure 2).



Figure 1

Model architecture diagram of DeepSeek V3/R1. Created by the author, 2025.



Figure 2

Illustration of OCR text extraction process. Created by the author, 2025.

Secondly, technical constraints exist in ancient character recognition. When recognizing ancient Chinese bronze inscription characters



(Jinwen), current models can only recognize characters that have already been deciphered. They struggle to effectively handle the large number of undeciphered characters prevalent in the field of bronze inscriptions. Utilizing artificial intelligence models to decipher and interpret difficult and undeciphered characters in bronze inscriptions remains a major challenge in current research within this field (Xu, 2024).

DeepSeek V3/R1 still faces technical bottlenecks in processing phonetic loan characters (tongjiazi). For example, in the passage "乃筑台于章华之上,阙为石郭,陂汉,以象帝舜。罢弊楚国,以间陈、蔡" from the seventh year of Duke Zhao in the Zuo Zhuan, due to the model's lack of understanding of Warring States period character loan practices, it failed to correctly interpret the character "间"(jiān)as "县"(xiàn,meaning "county/district"). Instead, it understood it as "离间"(líjiàn,meaning "to sow discord"). Phenomena unique to Warring States period script, such as phonetic loans,variant writings,miscopyings,and synonymous character substitutions,pose severe challenges to the ability of large language models to deeply comprehend textual semantics (Lin et al., 2025).

Figure 3, the overall volume of Chinese corpora is insufficient, and there is a gap in high-quality Chinese language resources. According to real-time data from W3Techs on August 12, 2025, Chinese accounts for only 1.1% of global internet content, far below English's 49.2% share (W3Techs, 2025). This disparity in the total volume of Chinese and English corpora results in a severe shortage of open-source Chinese data. While English open-source data supports the operation of large models like GPT, which are built primarily on English resources, Chinese models such as DeepSeek V3/R1 have access to significantly limited web data (Zhang, 2024).



Crucially, there is a serious lack of data reserves for areas like Classical Chinese, dialects, polyphonic and polysemous characters/words, and ancient scripts. As of April 15, 2025, China's Jishou University is preparing to launch the country's first digitized Qin bamboo slips database, the "DeepSeek V3/R1-Qinjian Database V1.0". This online database contains 17,269 text images, annotating 115,996 characters and covering 2,847 categories of ancient characters (Song & Hu, 2025). In contrast, the Shuowen Jiezi (說文解字 - Explaining Graphs and Analyzing Characters), compiled by Xu Shen during the Han dynasty, included 9,353 Chinese characters (Xun et al., 2018). This comparison highlights the limited coverage of existing Classical Chinese corpora in China.

This scarcity leads to limited recognition and processing capabilities in models for both ancient and modern Chinese languages, increasing the likelihood of biases and errors. Consequently, it amplifies the difficulties faced by second language learners of Chinese in understanding and identifying linguistic elements.



Technologies > Content Languages

Usage statistics of content languages for websites

This diagram shows the percentages of websites using various content languages. See technologies overview for explanations on the methodologies used in the surveys. Our reports are updated daily.

How to read the diagram:

English is used by 49.2% of all the websites whose content language we know.



Figure 3

Proportion and limitations of Chinese corpora compared to English resources. Created by the author based on data from W3Techs (2025); Zhang (2024); Song and Hu (2025) & Xun et al. (2018). Image from a website: W3Techs



2. Structural Reconstruction Pressure on the Educational Authority System

Some voices in the education sector express concern that second language learners' overreliance on generative AI may impede their language proficiency development (Sangeethapriya, 2024). Research led by Stanford University showed that within their sample, 17.5% of computer science papers and 16.9% of peer review comments contained AI-generated content (Zhang & Premy, 2025). When students become accustomed to using keyword prompts to request definitions, text polishing, or even assignment answers, the phenomenon of "algorithm dependence" erodes their autonomy in language acquisition, leading to "learning stagnation".

Furthermore, DeepSeek V3/R1 may generate "plausible yet erroneous responses" during text generation (Zhang & Premy, 2025). Errors in data collection, processing, and application can result in misleading outputs for users. As an inevitable outcome of technological advancement (Jensen et al., 2025), it is necessary to establish effective regulatory mechanisms by the education sector. This will ensure both the utilization of its technical advantages and the safeguarding of academic integrity and learning outcomes.

3. Ethical Challenges to Learner Autonomy

DeepSeek V3/R1's profound integration is fundamentally restructuring the international Chinese education system. Under Al's sustained impact, the traditional pedagogical framework, where teachers derive authority from knowledge mastery and instructional dominance, now faces systemic reconstitution. This requires international Chinese language teachers to master the foundational understanding and practical skills of



DeepSeek V3/R1's operational mechanisms. Such booming technological demands, when unsupported by systematic training, risk becoming pedagogical burdens that trigger technostress (Wang et al., 2022). And when students can use AI to instantaneously access specialized knowledge surpassing teachers' expertise (e.g., etymology of classical Chinese particles, dialectal sound shift patterns), educators' core function as "knowledge arbiters" becomes significantly diminished.

Actually, DeepSeek V3/R1 challenges not merely teachers' centrality but humanity's century-old educational paradigm. Balancing technological efficiency with humanistic values while resolving educators' adaptation crisis may prove pivotal to the modernization of international Chinese language education.

Countermeasures for DeepSeek V3/R1 Empowering International Chinese Education Development

In May 2025, the Ministry of Education of the People's Republic of China published the "China Smart Education White Paper". This document reviews the development trajectory of educational digitization, formulates macro development strategies, focuses on practical exploratory measures, and outlines a blueprint for future prospects. It holds significant guiding implications for the digital-intelligent transformation of international Chinese language education.

1. Consolidate Resource Capabilities and Strengthen the Technological Foundation

To overcome bottlenecks in DeepSeek V3/R1's speech interaction, multimodal recognition, and corpus construction, a systematic technological



upgrades must be pursued. This hinges on establishing an intelligent chain for "multimodal information reception \rightarrow analysis \rightarrow interaction".

Develop a high-robustness speech interaction system integrating accent-adaptive speech recognition and emotional speech synthesis, supporting tone calibration and immersive scenario dialogues to enhance oral training quality.

Building specialized text recognition systems, ancient script recognition primarily relies on conventional AI image recognition (Xu, 2024), combining DeepSeek V3/R1's high computational capacity with imaging technology will significantly boost efficiency, making exceptional contributions to classical Chinese cultural research.

Construct databases for dialects, classical Chinese, and modern Chinese with reinforced polyphonic/polysemic character annotation to overcome semantic misinterpretation challenges, thereby making incremental contributions to linguistic phenomena research.

These technological implementations will propel DeepSeek V3/R1's evolution from a text processor to a multimodal language acquisition assistant, delivering precise pedagogical information through multisensory channels to resolve the "high-input-yet-low-return" dilemma in comprehensive international Chinese skills teaching.

2. Deepen Intelligent Integration and Optimize the Educational Ecosystem

To address the risk of teacher marginalization, a "Teacher-Led Technology Enhancement (TLTE)" pedagogical system should be established. In 2022, the Professional Standards for International Chinese Language



Teachers incorporates educational technology competency into its core competency system, creating an institutional pivot for reasserting teacher agency (Jin, 2023). Through practical AI tool certification programs, educators can transition from technology users to pedagogical conductors.

DeepSeek V3/R1 undertakes the responsibility of knowledge delivery, while teachers focus on embodied instruction. Taking calligraphy teaching as an example, AI provides character structure analysis. Teachers guide practical skills like brushstroke dynamics. This synergy establishes a pedagogical loop of "unity of knowing and acting" (知行合一), enabling complementary collaboration (see Figure 4).

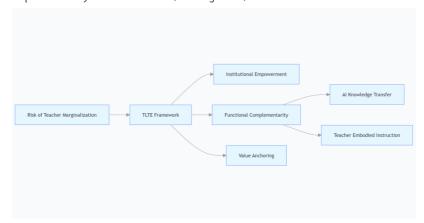


Figure 4

Collaborative pedagogical loop between AI and teacher in calligraphy instruction. Created by the author, 2025.

Only by establishing clear functional demarcation between technological empowerment and cultural perpetuation can DeepSeek V3/R1 become a sustaining force for educational innovation rather than an existential threat.



3. Safeguard Cognitive Autonomy and Resist Technological Alienation

In the process of DeepSeek V3/R1 becomes deeply embedded in international Chinese education, the tension between technological convenience and academic ethics demands an adaptive ethical framework. This requires clearly demarcating boundaries for AI usage, mandating explicit labeling of AI-generated content while prohibiting its direct submission as original academic work. Simultaneously, academic integrity education must be thoroughly integrated into curricula, establishing that appropriating AI-generated material constitutes scholarly misconduct equivalent to human plagiarism.

Assessment systems should be reconfigured through multidimensional approaches: reducing standardized testing weight while implementing qualitative evaluations as supplements, conducting integrated assessments of listening, speaking, reading, writing, and translation competencies, with particular emphasis on process-focused evaluation. Institutionally, intelligent management systems incorporating tools like Turnitin and Grammarly (Liu, 2024a), which have demonstrated capabilities in identifying AI-generated text, should be deployed to preserve academic originality and prevent DeepSeek V3/R1-enabled misconduct.

This dual-track strategy combining institutional constraints with ethical cultivation deliberately avoids extreme technological prohibition. By enhancing student agency through these measures, it achieves the essential synthesis of technological empowerment and academic integrity within evolving educational paradigms.



Conclusion

As an emerging discipline, international Chinese education bears the critical mission of disseminating language and culture in the digital era. Large language models (LLMs), represented by DeepSeek V3/R1, are injecting new momentum into innovation within this field through their powerful capabilities in generation, comprehension, and interaction. By offering personalized learning support, Al-assisted teaching, and innovations in crosscultural communication, they significantly enhance learning efficiency and teaching experiences, providing new models for the propagation of Chinese and even global cultural exchange.

In the process of technological empowerment, we must fully leverage technical advantages to unlock AI's potential while remaining vigilant against the risks of dehumanizing effects that may weaken learning autonomy. Upholding the principle of "education as the foundation, technology as the tool", we should skillfully utilize intelligent technology while preserving the essence of humanistic education. This approach will drive high-quality development in international Chinese education, enabling the Chinese language and culture to radiate new vitality in the digital age and advancing the global dissemination of Chinese language and culture.

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Name: Runci Zhang

Highest Education: Undergraduate students majoring in Teaching Chinese to Speakers of Other

Language

Affiliation: Hangzhou Dianzi University





Name: Dr. Ying Zhang

Highest Education: Doctor of Linguistics and

Applied Linguistics

Affiliation: Hangzhou Dianzi University



Specific Learning Disorders in Contemporary Education: A Call for Early Intervention, Inclusive Practices, and Teacher Training

Malai Boonma Nakhon Ratchasima Rajabhat University Nakhon Ratchasima, Thailand E-mail: Malaidedee1219@gmail.com

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Abstract

Specific Learning Disorders (SLDs), including dyslexia, dysgraphia, and dyscalculia, are among the most common neurodevelopmental conditions affecting students in contemporary education, often impairing literacy, numeracy, and written expression. Despite increasing awareness, many students remain undiagnosed due to inconsistent screening practices and misconceptions, while reliance on standardized curricula and assessments further exacerbates their challenges. This article presents a narrative literature review that synthesizes recent research, policy reports, and theoretical perspectives from educational psychology, neuroscience, and pedagogy to examine effective responses to SLDs. The findings emphasize the importance of early identification, through consistent screening and diagnostic practices, as a prerequisite for timely intervention, which may include targeted support programs, inclusive pedagogical approaches such as differentiated instruction and Universal Design for Learning (UDL), and the



use of assistive technologies to enhance literacy and numeracy skills. The review further highlights the critical role of comprehensive teacher training in equipping educators with the knowledge and confidence to implement these strategies effectively. By drawing these insights together, the article argues for education systems to prioritize early identification, evidence-based intervention, and sustained professional development to create equitable learning environments that support both academic achievement and long-term success for students with SLDs.

Keywords: Specific Learning Disorders, Early Intervention, Inclusive Education, Teacher Training, Assistive Technology

Introduction

The 21st century has brought significant advancements in education, driven by globalization, technological innovation, and evolving pedagogical frameworks. However, despite these developments, Specific Learning Disorders (SLDs) continue to present substantial challenges for students, educators, and policymakers. SLDs, encompassing dyslexia, dysgraphia, and dyscalculia, are neurodevelopmental disorders that impair students' ability to acquire and apply essential academic skills (Shaywitz et al., 2020). Unlike intellectual disabilities, SLDs do not affect overall cognitive abilities but interfere with neurological processes crucial for reading, writing, and mathematical reasoning. Consequently, students with SLDs struggle within traditional education systems that rely on standardized curricula, text-heavy instruction, and conventional assessment methods, increasing the likelihood of academic failure and emotional distress (Fletcher et al., 2019).



SLDs affect a significant proportion of school-aged children, with prevalence estimates ranging between 5% and 15%, though these figures may be conservative due to widespread underdiagnosis and misidentification (Miciak et al., 2019). The difficulty in recognizing SLDs arises from their invisible nature; affected students do not exhibit physical symptoms but instead show persistent academic struggles, difficulty with literacy and numeracy, and avoidance of learning tasks (Cortiella & Horowitz, 2014). Despite growing awareness, many students remain undiagnosed until middle school, by which point academic challenges have compounded, leading to frustration, anxiety, and diminished self-esteem (Snowling & Hulme, 2021). Delayed diagnosis not only exacerbates psychological distress but also limits the effectiveness of intervention strategies, as early support is critical for mitigating the long-term consequences of learning disabilities (Lyon et al., 2021)

The impact of SLDs extends beyond academic performance, affecting mental health and long-term socio-economic outcomes. Many students with SLDs experience chronic stress due to repeated academic setbacks and the pressure to perform at the same level as their peers. Research indicates that individuals with SLDs are at a higher risk of developing anxiety disorders, depression, and low self-esteem, often internalizing their struggles as personal failures rather than recognizing them as neurological differences (Maughan & Carroll, 2020). Beyond school, these challenges translate into reduced career prospects, as individuals with undiagnosed or unsupported learning disabilities are less likely to pursue higher education or secure stable employment (Shifrer et al., 2013). Systemic barriers, including workplace discrimination and inadequate accommodations,



further limit professional growth, reinforcing the cycle of disadvantage that begins in childhood (Fletcher et al., 2019).

Addressing the challenges associated with SLDs requires a comprehensive approach that emphasizes early identification, inclusive instructional practices, and targeted teacher training. Schools must implement standardized screening tools to detect learning difficulties at an early stage, ensuring timely intervention and support. Additionally, the adoption of Universal Design for Learning (UDL), a research-based educational framework that promotes multiple means of representation, engagement, and assessment, can help accommodate diverse learning needs (CAST, 2020). Equally important is the need for professional development programs that equip teachers with the necessary knowledge and skills to support students with SLDs effectively. Many educators report feeling unprepared to identify and assist students with learning disorders, underscoring the need for structured training in inclusive teaching strategies, differentiated instruction, and assistive technology integration (Edyburn, 2021).

Policy reforms and increased resource allocation are also essential to fostering an inclusive education system. Governments and educational institutions should advocate for systemic changes that prioritize accessibility, equity, and the removal of learning barriers. Without targeted intervention, students with SLDs risk long-term academic and professional disadvantages.

The Need for Early Intervention

Early intervention is a critical component of supporting students with Specific Learning Disorders (SLDs), as research consistently demonstrates that timely identification and targeted instruction yield significantly better



outcomes (Fletcher et al., 2019). Without early intervention, students with SLDs often endure prolonged academic struggles, leading to diminished self-esteem, emotional distress, and long-term negative consequences for personal and professional development. Despite growing awareness, many students are not diagnosed until late elementary school or beyond, by which time the compounding effects of academic failure have already taken a toll. Addressing this issue requires a systematic approach, including early screening, evidence-based instructional strategies, and increased collaboration among educators, parents, and policymakers to ensure that students receive appropriate support at the earliest possible stage.

The Importance of Early Identification: Recognizing SLDs in the early years of schooling is essential to providing effective support. Research shows that children who receive intervention between kindergarten and second grade demonstrate significantly greater progress in reading, writing, and mathematical reasoning compared to those who receive support later in their academic careers (Vellutino et al., 2004). Early identification enables educators to implement targeted instructional methods before students experience substantial learning gaps, preventing the cycle of repeated academic failure. However, many students with SLDs remain undiagnosed until third grade or later, when they have already internalized negative academic experiences, leading to frustration, disengagement, and anxiety (Shaywitz et al., 2020). Delayed diagnosis not only increases the likelihood of poor academic performance but also contributes to behavioral challenges, as students struggling with undiagnosed learning disorders may develop avoidance strategies, display disruptive behavior, or withdraw from classroom activities (Snowling & Hulme, 2021).



One of the primary barriers to early identification is the inconsistent implementation of standardized screening tools across educational systems. While some schools incorporate universal screening measures to detect early signs of SLDs, others rely on teacher observations, which can be subjective and prone to bias (Miciak et al., 2019). Additionally, misconceptions persist, including the belief that young children will "outgrow" their difficulties, leading to further delays in assessment and intervention. To address these gaps, schools should adopt systematic screening programs that assess phonological awareness, reading fluency, writing mechanics, and numerical reasoning at key developmental stages.

Benefits of Early Intervention Programs: Research has established that early intervention programs significantly improve learning outcomes for students with SLDs. Structured literacy instruction, particularly phonics-based approaches, has been shown to enhance reading skills in children with dyslexia when implemented at an early age (Torgesen et al., 2007). Similarly, multisensory teaching techniques, which engage auditory, visual, and kinesthetic learning pathways, have been effective in supporting students with dysgraphia and dyscalculia (Berninger & Richards, 2020). By providing targeted instruction tailored to individual learning needs, early intervention programs prevent students from falling further behind their peers and foster greater academic engagement.

Beyond academic benefits, early intervention promotes positive social-emotional development. Children who receive support early are more likely to develop confidence, motivation, and resilience (Maughan & Carroll, 2020). In contrast, students who struggle without intervention often develop learned helplessness, a condition in which they believe that their efforts will



not lead to success, further diminishing their willingness to engage in learning (Sideridis, 2007). Effective early intervention programs incorporate academic support alongside social-emotional learning (SEL) strategies, ensuring that students receive both cognitive and emotional reinforcement to navigate their educational experiences successfully.

Key elements of successful early intervention include structured literacy instruction focusing on phonological awareness and decoding strategies, multisensory writing programs that integrate tactile and visual learning techniques, and interactive math instruction that reinforces number sense and problem-solving skills. Additionally, SEL initiatives provide coping mechanisms for students facing academic difficulties, helping them build emotional resilience and self-advocacy skills. Schools that implement these interventions early in a child's education significantly reduce the risk of long-term academic and psychological difficulties.

The Role of Parents and Teachers in Early Intervention: The effectiveness of early intervention relies on the active involvement of both parents and teachers. Parents often observe early signs of learning difficulties at home, yet many lack the necessary knowledge or confidence to seek professional assessment. Common indicators that may raise concern include a child's persistent difficulty in recognizing letters or numbers, frequent letter reversals when writing, unusual slowness in reading or copying tasks, avoidance of homework related to literacy or mathematics, or struggles with remembering instructions and sequences. Teachers, in turn, may notice classroom-based challenges such as difficulty following multi-step directions, limited written expression despite strong verbal skills, poor spelling, or ongoing struggles with basic arithmetic concepts. Recognizing these signs



allows both parents and teachers to provide timely documentation and feedback that supports professional screening. Dyslexia (reading difficulties): signs may include delayed speech development, persistent difficulty in recognizing letters and sounds, frequent guessing when reading words, slow and labored reading, avoidance of reading activities, and struggles with remembering familiar words. Dysgraphia (writing difficulties): indicators often involve inconsistent letter formation, poor spacing and alignment on paper, difficulty holding a pencil correctly, frequent spelling errors, avoidance of writing tasks, and producing written work that is far below oral language ability. Dyscalculia (math difficulties): signs may include difficulty recognizing numbers and symbols, trouble with counting or sequencing, confusion with mathematical signs $(+, -, \times, \div)$, difficulty recalling basic math facts, struggles with time and money concepts, and anxiety when faced with math-related tasks.

Teachers may notice these challenges in classroom performance, while parents may observe them during homework, play, or daily routines. Recognizing these disorder-specific indicators allows both parents and teachers to provide timely documentation and feedback that supports professional screening. Schools should take an active role in educating parents about the signs of SLDs and the importance of early support through workshops, resources, and community outreach programs (Lyon et al., 2021). Establishing strong school-family partnerships ensures that students receive consistent support across home and educational environments.

Teachers play an equally crucial role in early identification and intervention. However, many educators report feeling underprepared to recognize and address SLDs due to insufficient training in special education



strategies (Florian & Black-Hawkins, 2019). Professional development programs should equip teachers with the ability to identify early warning signs, implement differentiated instruction, and utilize classroom accommodations such as assistive technology, alternative assessment formats, and modified instructional methods. Moreover, fostering collaboration between general education teachers, special education professionals, and parents enhances the effectiveness of intervention efforts.

A structured framework such as a Multi-Tiered System of Support (MTSS) can facilitate early intervention by categorizing students based on their level of need. MTSS includes Tier 1 (universal instruction for all students), Tier 2 (targeted interventions for at-risk students), and Tier 3 (intensive interventions for students with diagnosed SLDs) (Fuchs & Fuchs, 2017). This tiered approach ensures that all students receive the appropriate level of support, minimizing academic disparities and maximizing learning potential.

The Cost of Delayed Intervention: The failure to intervene early has severe long-term consequences. Research indicates that students with undiagnosed and untreated SLDs are at significantly higher risk of academic failure, school dropout, and unemployment (Shifrer et al., 2013). In adulthood, individuals with learning disabilities who did not receive early support often struggle with job retention and financial stability, contributing to increased reliance on social services (Cortiella & Horowitz, 2014). The economic burden of untreated SLDs extends beyond individuals to society as a whole, reinforcing cycles of inequality and limiting workforce participation.

Delayed intervention also has significant psychological ramifications.

Adolescents with untreated SLDs experience heightened levels of anxiety,



depression, and social isolation (Maughan & Carroll, 2020). Feelings of inadequacy, developed over years of struggling in an unsupportive educational environment, can lead to negative coping mechanisms such as avoidance behaviors and substance abuse. By contrast, students who receive timely intervention are more likely to develop positive academic self-concepts, maintain motivation for learning, and achieve long-term success in education and employment.

Moving Toward a Proactive Approach: To ensure that students with SLDs receive the support they need, educational systems should transition from a reactive to a proactive model. Rather than waiting for students to experience repeated failures before providing assistance, schools should implement comprehensive early screening programs, integrate evidencebased interventions into general education settings, and prioritize professional development for educators. For example, proactive models may include kindergarten-wide literacy and numeracy screenings, responseto-intervention (RTI) frameworks that provide tiered support before formal diagnosis, and school-based workshops that equip teachers with strategies to adapt instruction at the first sign of difficulty. Internationally, several contexts highlight the role of proactive partnerships between schools and families. In Thailand, for instance, parent-school partnerships are strengthened through community-based early intervention programs supported by the Ministry of Education, where teachers conduct parent workshops on recognizing early signs of SLDs and provide take-home learning activities that align with classroom instruction. Some Thai pilot projects, such as those implemented in inclusive education schools under the Office of the Basic Education Commission (OBEC), encourage parents to collaborate with



teachers through Individual Education Plans (IEPs), ensuring that intervention strategies at home are consistent with school-based support. These examples illustrate how culturally responsive parent engagement can enhance early identification and intervention, creating a bridge between home and school that sustains student progress. Policymakers should allocate adequate funding to support these initiatives, ensuring equitable access to early intervention resources regardless of socioeconomic background.

A proactive approach to early intervention not only enhances academic outcomes but also fosters inclusive learning environments where all students, regardless of their learning abilities, have the opportunity to thrive. Investing in early support systems is not merely an educational priority; it is a moral and social responsibility that contributes to the broader goal of achieving educational equity. By committing to early identification, effective intervention strategies, and teacher training, educational institutions can create a system that empowers students with SLDs to achieve their full potential, ensuring that learning difficulties do not become lifelong barriers to success.

The Role of Inclusive Educational Practices

Inclusive education is essential for addressing the needs of students with Specific Learning Disorders (SLDs), ensuring they receive equitable learning opportunities within mainstream classrooms. An inclusive approach integrates tailored teaching strategies, accommodations, and a supportive environment, fostering both academic achievement and social-emotional development (Florian & Black-Hawkins, 2019). Research demonstrates that inclusive practices benefit not only students with SLDs but also promote



greater awareness and acceptance among peers. However, many schools struggle with effective implementation due to insufficient teacher training, rigid curricula, and limited resources. Achieving meaningful inclusivity requires adopting Universal Design for Learning (UDL), differentiated instruction, assistive technology, and supportive classroom environments to accommodate diverse learning needs.

Creating a Supportive and Inclusive Classroom Environment: A positive and inclusive classroom culture significantly impacts the academic and social development of students with SLDs. For example, when teachers establish routines that celebrate diverse learning styles, such as pairing students with complementary strengths in group projects or allowing multiple ways of demonstrating knowledge, students with SLDs experience greater confidence, reduced stigma, and improved peer relationships. Peer-assisted learning strategies (PALS) have been shown to improve both academic performance and social integration, fostering collaborative learning and reducing stigma (Fuchs et al., 2019). Teachers play a critical role in cultivating a growth mindset by emphasizing effort, progress, and individual strengths rather than deficits (Dweck, 2016). Implementing flexible assessment methods, such as oral presentations, project-based evaluations, and extended time on exams, accommodates diverse learning needs and reduces test-related anxiety. Additionally, anti-bullying initiatives and awareness campaigns contribute to a more accepting and supportive school environment.

Universal Design for Learning (UDL) and Differentiated Instruction: Universal Design for Learning (UDL) provides a flexible instructional framework that supports diverse learning styles by incorporating multiple means of engagement, representation, and expression (Meyer et al., 2014).



For students with dyslexia, this includes text-to-speech tools and visual aids, while those with dysgraphia benefit from speech-to-text software and typing alternatives to handwriting. Interactive, hands-on learning approaches enhance mathematical understanding for students with dyscalculia (Rose et al., 2018). Differentiated instruction complements UDL by modifying lesson content, teaching processes, and assessment methods to accommodate individual learning needs. Studies indicate that differentiated instruction improves engagement, self-confidence, and academic outcomes for students with SLDs (Tomlinson, 2017). Effective implementation of these strategies requires educators to design adaptable curricula that address diverse cognitive profiles.

Assistive Technology as a Tool for Inclusion: Assistive technology (AT) enhances learning accessibility for students with SLDs by addressing barriers in reading, writing, and mathematical reasoning. Text-to-speech programs and audiobooks aid students with dyslexia, while dictation tools and word prediction software support written expression for those with dysgraphia (Edyburn, 2020). Interactive applications such as ModMath assist students with dyscalculia by presenting numerical concepts in visual and structured formats. Despite the proven benefits of AT, its integration remains inconsistent due to financial constraints, lack of teacher training, and inadequate institutional support (Dell et al., 2016). Ensuring widespread access to AT requires policy initiatives that allocate funding, provide educator training, and promote technological advancements to support inclusive learning environments.

The Role of Policy and School Leadership in Promoting Inclusive Practices: Effective inclusive education requires systemic support from



policymakers and school leadership. Countries with well-developed inclusion policies, such as Finland and Canada, demonstrate higher success rates for students with SLDs due to comprehensive teacher training, resource allocation, and structured accommodations (Organisation for Economic Cooperation and Development, 2019). School administrators must prioritize inclusive education by hiring specialized educators, funding intervention programs, and ensuring equitable access to AT. Clear policies outlining accommodations, Individualized Education Plans (IEPs), and differentiated instruction frameworks help standardize inclusive practices. Parental involvement is equally crucial, as collaborative engagement between schools and families reinforces learning strategies and ensures consistent support across home and school settings (Lyon et al., 2021).

Overcoming Barriers to Inclusive Education: Despite the advantages of inclusive education, challenges persist, including insufficient teacher preparation, large class sizes, and institutional resistance to change. Addressing these barriers requires integrating mandatory coursework on SLDs into teacher education programs, increasing funding for special education services, and enforcing policy frameworks that mandate early screening and intervention (Florian & Black-Hawkins, 2019). Collaborative teaching models, in which general and special educators co-teach and provide individualized support, enhance instructional effectiveness and promote inclusivity. By fostering professional development and institutional reform, schools can create sustainable, inclusive educational environments.

Conclusion: Inclusive educational practices are fundamental to ensuring that students with SLDs receive equitable learning opportunities. Implementing UDL, integrating assistive technology, fostering supportive



classroom cultures, and strengthening policy frameworks enhance the accessibility and effectiveness of education. However, achieving true inclusivity requires systemic reform at multiple levels, including educator training, resource allocation, and institutional commitment. The future of education should embrace flexibility, individualized support, and innovation to create learning environments where all students can succeed. By prioritizing inclusive practices, educational institutions not only support students with SLDs but also contribute to a more equitable and effective learning system for all.

The Importance of Teacher Training

Teacher training is a pivotal factor in the academic success of students with Specific Learning Disorders (SLDs). While inclusive education policies and assistive technologies offer critical support, the teacher's capacity to identify, accommodate, and respond to students' needs is central to fostering equitable learning outcomes (Florian & Black-Hawkins, 2019). However, many educators lack the specialized training required to support students with SLDs effectively, leading to inconsistent interventions, lower academic performance, and heightened emotional distress. Comprehensive teacher training programs that emphasize evidence-based interventions, inclusive instructional strategies, and collaborative practices are essential to creating supportive learning environments.

The Lack of Teacher Preparation in Addressing SLDs: Despite the high prevalence of SLDs, affecting approximately 5–15% of school-aged children, many teacher preparation programs provide minimal instruction on identifying and supporting these students (Shaywitz et al., 2020). The limited



focus on SLDs within general teacher education often perpetuates misconceptions that students with learning difficulties simply lack effort, rather than experiencing neurological differences (Fletcher et al., 2019). For example, in many schools across Southeast Asia, including Thailand, teachers often receive little or no training on identifying the signs of SLDs, leading to misinterpretation of student struggles as laziness or lack of effort. A Grade 4 student with undiagnosed dyslexia, for instance, may be repeatedly asked to read aloud without additional support, resulting in embarrassment, low self-esteem, and disengagement from learning. Without adequate preparation, teachers may default to punitive discipline or remedial drilling instead of applying differentiated strategies. Addressing these barriers requires integrating mandatory coursework on SLDs into teacher education programs, increasing funding for special education services, and enforcing policy frameworks that mandate early screening and intervention (Florian & Black-Hawkins, 2019). As a result, students with dyslexia, dyscalculia, or dysgraphia are frequently misclassified, leading to inadequate interventions. Research indicates that teachers with specialized training in SLDs are more likely to implement evidence-based strategies and demonstrate higher confidence in meeting students' diverse needs (Lyon et al., 2021). Integrating mandatory SLD-focused coursework into teacher certification programs is essential to bridging this knowledge gap and equipping educators with the necessary skills to foster inclusive classrooms.

The Need for Ongoing Professional Development: Ongoing professional development is crucial for keeping educators abreast of advancements in SLD research, instructional methods, and assistive technologies. The dynamic nature of special education necessitates continuous training through workshops,



mentorship programs, and online platforms (Edyburn, 2020). Coaching models, where experienced special educators collaborate with general educators, have proven effective in enhancing differentiated instruction and inclusive practices (Tomlinson, 2017). Furthermore, participation in professional learning communities and international special education forums enables educators to share best practices and remain current with evolving pedagogical approaches. School systems should prioritize regular professional development opportunities to ensure that educators are well-equipped to address the diverse needs of students with SLDs.

Collaboration Between General and Special Educators: Effective inclusion of students with SLDs requires collaboration between general and special educators. However, many schools operate in siloed systems where special educators support only diagnosed students, while general educators lack the training to address learning difficulties (Florian & Black-Hawkins, 2019). Co-teaching models, where general and special educators share instructional responsibilities, have been shown to enhance both academic performance and social integration for students with SLDs (Fuchs et al., 2019). Collaboration must also extend to other professionals, including psychologists, speech-language therapists, and parents, to create individualized learning plans (IEPs) that holistically address each student's needs. Establishing multidisciplinary teams within schools strengthens support systems and promotes a more unified approach to inclusive education.

The Role of Policy in Strengthening Teacher Training: Comprehensive teacher training in SLDs requires robust policy frameworks that prioritize inclusive education at all levels of teacher preparation. Countries with well-developed inclusive education policies, such as Finland and Canada,



demonstrate higher success rates for students with SLDs due to mandatory SLD coursework, ongoing professional development, and collaborative teaching models (Organisation for Economic Co-operation and Development, 2019). Policy recommendations include integrating SLD-specific training into teacher certification programs, providing financial incentives for special education certifications, and mandating regular professional development in inclusive strategies. Governments must allocate sufficient funding to ensure that schools have access to instructional coaches, learning specialists, and assistive technologies to support inclusive education.

Addressing Barriers to Effective Teacher Training: Despite the clear need for teacher training in SLDs, several barriers hinder its widespread implementation. One major challenge is the limited integration of SLDfocused content in teacher education curricula. For instance, a survey of preservice teacher programs in Thailand found that many universities only briefly mention learning disorders in general psychology courses, leaving future teachers underprepared to address the complex needs of students with dyslexia, dyscalculia, or dysgraphia (Chotpitayasunondh & Boonmee, 2020). Another barrier is the lack of continuous professional development: in-service teachers often attend short workshops that focus on theory rather than practical classroom strategies, making it difficult to translate knowledge into daily practice. Furthermore, large class sizes and high teaching loads exacerbate the problem. In many Southeast Asian classrooms, where student numbers can exceed 40 per class, teachers struggle to provide individualized attention even when they recognize SLD symptoms. For example, a Thai primary school teacher may identify a child consistently struggling with reading but lack both the time and specialized training to



apply interventions such as phonics-based instruction or assistive technology. In some cases, this leads to mislabeling students as inattentive or lazy, reinforcing stigma and widening learning gaps. Limited funding, large class sizes, and resistance to change often prevent educators from accessing professional development opportunities. Moreover, the perception of inclusive teaching as an additional burden rather than a core teaching responsibility exacerbates reluctance among educators (Florian & Black-Hawkins, 2019). Addressing these challenges requires systemic investment in teacher training, smaller class sizes, and the integration of inclusive education principles into all teacher preparation programs. Fostering a culture of lifelong learning through institutional incentives and collaborative networks can further encourage educators to pursue specialized training in SLDs.

Conclusion: Teacher training is a fundamental pillar of inclusive education for students with SLDs. Equipping educators with the knowledge and skills to recognize, accommodate, and support diverse learning needs significantly improves academic outcomes, self-confidence, and emotional well-being among students with SLDs. Mandatory SLD-focused coursework, ongoing professional development, collaborative teaching models, and supportive policy frameworks are essential to strengthening teacher preparedness. Investing in teacher training not only promotes equity in education but also empowers educators to foster inclusive, supportive, and high-quality learning environments. As education systems advance, prioritizing teacher training remains a moral and educational imperative in creating equitable opportunities for all learners.



Conclusion

Specific Learning Disorders (SLDs) present a significant challenge to contemporary education, necessitating urgent systemic reforms to promote educational equity. Early intervention, inclusive pedagogical strategies, and comprehensive teacher training are fundamental pillars in supporting students with SLDs. Without these measures, affected learners are at heightened risk of academic underachievement, emotional distress, and limited career opportunities, with long-term repercussions on both individual and societal progress. Research consistently demonstrates that early screening and targeted interventions significantly improve academic outcomes and mitigate the adverse effects of SLDs (Shaywitz et al., 2020). However, delayed identification and inadequate support perpetuate cycles of frustration, widening learning gaps, and diminished self-esteem. Implementing comprehensive screening programs alongside evidence-based instructional methods, such as structured literacy and multisensory learning, can significantly enhance academic performance when introduced at an early stage (Fletcher et al., 2019).

Inclusive educational environments play a pivotal role in addressing the diverse needs of students with SLDs. Traditional pedagogical models often disadvantage these learners by relying on standardized instruction and assessment methods. Universal Design for Learning (UDL) offers a flexible framework that accommodates diverse learning styles by providing multiple means of representation, engagement, and expression (Rose et al., 2018). Assistive technologies, including speech-to-text software and adaptive learning platforms, further enhance accessibility. However, disparities in



access to these technologies, particularly in underserved communities, underscore the need for equitable resource distribution and comprehensive teacher training. Teachers serve as primary facilitators of inclusive education, yet many lack the specialized knowledge to identify and support students with SLDs effectively. Continuous professional development in SLD identification, intervention strategies, and differentiated instruction is essential to empowering educators and ensuring consistent application of accommodations (Lyon et al., 2021).

Addressing SLDs at a systemic level requires robust policy frameworks that prioritize inclusive education. Governments must allocate sufficient funding for special education programs, mandate comprehensive teacher training, and promote collaborative teaching models to bridge the gap between general and special education. Countries with well-developed legal frameworks for SLD support, such as Finland and Canada, report higher academic success rates and improved long-term outcomes for students with learning disorders (Organisation for Economic Co-operation and Development, 2019). By contrast, countries with strong teacher preparation systems provide valuable models. Canada, for example, requires pre-service teachers to complete coursework in inclusive education and individualized learning plans (IEPs), ensuring that new teachers enter the profession with both theoretical and practical skills (Volante, 2020). Similarly, Singapore has implemented nationwide professional development programs, where inservice teachers receive ongoing training in identifying and addressing SLDs, supported by school-based specialists who collaborate with general educators (Ng, 2019). These proactive approaches significantly reduce the misdiagnosis and under-support of students with SLDs and demonstrate that



systemic investment in teacher preparation yields measurable improvements in student outcomes. Overcoming barriers in Thailand and similar contexts requires systemic reform: integrating mandatory, practice-based coursework on SLDs into pre-service teacher education; establishing mentorship programs where novice teachers are guided by specialists in inclusive education; and expanding government-funded professional development initiatives that include hands-on training, classroom simulations, and follow-up support. International models like those of Canada and Singapore underscore that sustained investment in teacher training is not optional but essential to ensuring equitable access to education for students with SLDs.

Table 1
Comparative Approaches to Teacher Training in Addressing SLDs

Country	Pre-service	In-service	Classroom	Key
	Teacher	Professional	Support	Challenges
	Education	Development	Systems	
Thailand	Limited	Short workshops	Few school-	Overcrowded
	exposure to	provided, mostly	based	classrooms,
	SLDs, often	theoretical, with	specialists;	insufficient
	taught briefly	little emphasis	general	training time,
	in general	on applied	teachers	reliance on
	psychology or	strategies	manage large	traditional
	special		classes (40+	teaching
	education		students) with	methods
	electives;		minimal	
	lacks		individualized	
	mandatory,		support	
	practice-based			
	training			



Country	Pre-service	In-service	Classroom	Key
	Teacher	Professional	Support	Challenges
	Education	Development	Systems	
Canada	Mandatory	Ongoing,	Presence of	Variability in
	coursework in	government-	resource	resources
	inclusive	funded PD	teachers and	between
	education and	programs	school	provinces and
	Individualized	focusing on	psychologists	rural vs. urban
	Education	evidence-based	to support	schools
	Plans (IEPs);	interventions	general	
	strong focus	(phonics, UDL,	educators	
	on practice-	assistive tech)		
	based			
	strategies			
Singapore	Teacher	Nationwide	School-based	High pressure
	preparation	structured PD	specialists	academic
	includes	programs; in-	(Allied	system may
	modules on	service teachers	Educators)	limit flexibility
	inclusive	trained to	support	in adapting
	education and	collaborate with	general	curricula
	early	specialists	teachers in	
	identification		SLD	
	of learning		interventions	
	difficulties			

A failure to implement these reforms risks perpetuating educational inequities and limiting the potential of diverse learners. The pursuit of inclusive education is not only an academic necessity but a societal imperative, fostering a more equitable, diverse, and innovative workforce. By prioritizing



early identification, inclusive practices, and teacher preparedness, education systems can transform learning environments into catalysts for empowerment, growth, and social cohesion.

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Name: Malai Boonma

Highest Education: Master of Art in Teaching

English as a Foreign Language

Affiliation: Nakhon Ratchasima Rajabhat University



Cross-Cultural Pedagogy of Chinese Sachet Culture in Thai Primary Schools: A Case Study of Bamrungwittaya School

Yang Xiang¹ Ying Zhang²
Hangzhou Dianzi University¹⁻²
Zhejiang Hangzhou, China¹⁻²
E-mail: jessicaxy@qq.com

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Abstract

Within the Belt and Road Initiative's educational cooperation framework, the international dissemination of intangible cultural heritage necessitates adaptation to host-country cultural contexts. This study aims to provide reference for teaching Chinese intangible cultural heritage within Southeast Asian Chinese language education. Bamrungwittaya School integrates Chinese language education across all primary education stages (K-9). In2025, our school have 13 Chinese language teachers, including 8 Thai teachers and 5 Chinese teachers. The author implemented teaching practices for primary school students in grades 1 and 2, adopting a collaborative division of responsibilities with Thai local educators. This study employs action research methodology to explore cross-cultural pedagogical approaches for Chinese sachet culture, focusing on primary Grades 1-2 students at Bamrungwittaya School in Thailand during the Duanwu Festival. Building upon Byram's Model of Intercultural Communicative Competence, the research establishes



a three-dimensional teaching objective framework encompassing cognition, skills, and affect. Subsequently, a localized instructional design is developed. Practical implementation demonstrates that tangible cultural artifacts combined with multi-sensory experiences effectively reduce cultural distance. By creating sachets integrating Sino-Thai elements, students cultivate interest in and appreciation for traditional Chinese culture.

Keywords: Sachet Culture, Intercultural Pedagogy, Thai Primary Education, Intangible Cultural Heritage, Localization Strategies

Introduction

July 1, 1975 marked the historic establishment of diplomatic relations between China and Thailand, a milestone in cultural exchange that ushered in a new era of diversified interactions. On April 15,2004, China's Ministry of Education launched the "International Chinese Language Teacher Volunteer Program", with Yunnan Normal University sending its first cohort of 60 students to Thailand for a year-long Chinese language teaching initiative. In 2019, Thailand officially incorporated Chinese into its National Basic Education Curriculum Outline. Today, China's Belt and Road Language Connectivity Special Fund prioritizes support for Thailand, while the 2023 launch of the "China-Thailand High-Speed Railway Language Service Volunteers" program further strengthens bilateral ties.

Sachets, as treasures of Chinese Intangible Cultural Heritage, embody profound historical and cultural significance alongside traditional Chinese medicinal wisdom. Concurrently, they possess distinct intercultural pedagogical value: their exquisite craftsmanship showcases the aesthetic characteristics of traditional Chinese art, while the auspicious symbolism and



emotional expression they carry reflect universal human aspirations for the good and beautiful. Within the context of International Chinese Language Education, Sachets can serve as effective cultural mediators. They allow foreign learners to engage in intuitive experiences, fostering an appreciation for Chinese cultural charm alongside language acquisition, thereby achieving dual enhancement of linguistic skills and cultural cognition.

Research Objectives

- 1. To design a cross-cultural pedagogy for teaching Chinese sachet culture in Thai primary schools.
- 2. To assess the effectiveness of this pedagogy using Byram's ICC and Kolb's experiential learning frameworks.
- 3. Exploring pathways for cultural cognition fusion between China and Thailand through the cross-cultural empathy medium of sachets.

Research Scope

School name: Bamrungwittaya School

grade levels: grades 1 and 2

Class size: The school comprises 10 classes, with 213 students enrolled in Grade 1 and 218 students in Grade 2.

Time of data collection: June 2025, during the Dragon Boat Festival period.

Scope limited to sachet culture as part of Chinese festival education.

1. Conceptual Framework

1.1 Intercultural communication education theory



The Byram Model, developed by British applied linguist Michael Byram, is a theoretical framework for intercultural communication competence designed to systematically cultivate effective communication skills in multicultural contexts. Integrating perspectives from linguistics, education, and social psychology, this model has been widely adopted in foreign language teaching, international business management, and crosscultural training. Byram categorizes intercultural communication competence into four interconnected dimensions: cognitive understanding, affective attitudes, behavioral skills, and critical cultural awareness. Based on these dimensions, the model primarily divides intercultural communication competence into skills such as attitude cultivation, knowledge acquisition, interpretative and relational skills, discovery skills, and communicative competence (Byram, 2020).

 ${\it 1.1.1 \; {\it Cognitive \; understanding: The \; sachet \; is \; a \; material \; carrier}}$ of cultural knowledge

Byram emphasizes the systematic knowledge accumulation of both one's own and others' cultures. Both Chinese and Thai sachets embody the essence of warding off epidemics and praying for blessings. Chinese Dragon Boat Festival sachets primarily use Artemisia argyiand calamus as ingredients, while Thai "Sabi" sachets incorporate lemongrass and turmeric. Together, they reflect the Eastern wisdom of "preventing disease before it occurs". Through comparison, learners can understand the similarities and differences in raw materials between the two countries sachets. The patterns on sachets carry cultural connotations: for instance, Chinese plum blossom motifs symbolize "standing tall against cold", while Thailand's nine-colored silk thread weaving represents the Buddhist Nine



Virtues. When introducing Chinese sachets, teachers should not only explain their surface-level meanings like patterns and classifications, but also delve into deeper aspects such as historical background, practical functions, and symbolic significance.

1.1.2. Emotional attitude: Cultivate cultural empathy through collaborative practice

The emotional dimension requires abandoning cultural centrism. The creation of sachets achieves attitude transformation through collaborative co-creation. It is essential to break down cultural stereotypes and guide students to recognize that Chinese sachets are not mere religious symbols, but rather a lifestyle aesthetics integrating traditional Chinese medicine wisdom. This helps correct the oversimplified perception that "Chinese traditional culture equals Confucian symbols". By engaging students in empathetic participation, we can ignite their cultural identity. The immersive experience of personally handling herbal ingredients and fabric transforms abstract culture into tangible emotional connections, aligning with Byram's philosophy of "curiosity-driven exploration".

1.1.3 Behavioral skills: cross-cultural practices from production to communication

The sachet activity requires learners to apply behavioral strategies to resolve cultural differences. To truly understand China's sachet culture, one must go beyond mere knowledge acquisition and immerse oneself in authentic cultural contexts. This involves three key aspects: symbolic translation, situational adaptation, and conflict mediation. For symbolic translation, teachers can provide students with diverse fragrance options that cater to Thai preferences, demonstrating cultural adaptability.



Regarding situational adaptation, educators may have students exchange sachets with Chinese blessings in Mandarin, or facilitate Thai students to present sachets through the traditional Thai ritual of "heptapalm" (khat) while Chinese teachers perform the "heptapalm salute". For conflict mediation, attention should be paid to specific symbols in Thai sachets. Through guided discussions comparing Chinese auspicious patterns with Thai Buddhist mantras, learners can practice strategies for resolving cultural differences while avoiding stigmatization of foreign symbols.

 $1.1.4 \ {\it Critical \ cultural \ consciousness: \ deconstructing \ and \ reconstructing \ cultural \ power \\$

The sachet campaign empowers learners to transcend superficial adaptations and engage in cultural reflection and co-creation. By critically examining cultural assumptions—such as comparing the "health" concept in Chinese and Thai sachets, where China emphasizes "warding off evil" (using Artemisia argyifor detoxification) while Thailand focuses on "balancing" (employing turmeric to harmonize bodily fluids)—it guides learners to question deeper cultural logic. Through ethical deliberation and third-space construction, the initiative employs Al-generated sachet patterns to emphasize collaboratively establishing ethical boundaries.

1.2 Experiential learning theory

The experiential teaching model originated from the experiential learning theory proposed by American psychologist David Kolb in 1971. This theory constructs a cyclical learning model based on experiential learning, comprising four interconnected cognitive stages: concrete experience acquisition, reflective observation, abstract conceptualization, and active practice verification. Empirical studies have shown that this learning



paradigm significantly enhances learners 'cognitive development, stimulates potential, and improves knowledge transfer capabilities. The experiential teaching model developed from this theory refers to educators following learners' cognitive development patterns, utilizing systematic pedagogical frameworks, and creating authentic or simulated teaching scenarios to guide learners deep participation in knowledge construction. This approach emphasizes internalizing knowledge through personal experiences and transferring skills through practical application, ultimately achieving multidimensional educational goals including cognitive advancement, comprehensive skill cultivation, and core competency development. Based on Kolb's experiential learning cycle theory, the sachet culture activity for Thai elementary students can be viewed as a complete dynamic cognitive process of "concrete experience (smelling/sanitary product making) \rightarrow reflective observation (cultural comparison) \rightarrow abstract conceptualization (symbolic meaning) \rightarrow active experimentation (gifting/sharing)".

1.2.1 Specific experiences

Teachers can play short videos or display images to illustrate the traditional custom of wearing sachets during China's Dragon Boat Festival. By presenting physical sachets, students can observe their shapes, colors, and patterns such as floral designs and auspicious motifs. Through olfactory experiences, they can smell common Chinese herbal ingredients like Artemisia argyiand mint inside the sachets. A simple cultural comparison between China and Thailand can be conducted, exploring similarities and differences between Thai fragrant flower garlands and Chinese sachets to guide students thinking. This interactive session aims to



stimulate students interest in sachet culture and enhance their intuitive understanding through multisensory engagement – visual, tactile, and olfactory.

1.2.2 Reflect and observe

Teachers can organize group discussions where students explore the cultural significance of sachets. For example, they might ask: "Why are most sachets red?" or "What do the patterns symbolize?" The teacher could then explain cultural symbolism - like how lotus flowers represent purity and bats stand for 'blessing' (a homophone for 'fortune'). Students could further compare why China uses Artemisia argyito ward off evil while Thailand employs sweet lemongrass for blessings. This approach helps students understand the cultural logic behind sachets through comparative analysis, fostering cross-cultural reflection and developing critical thinking skills to uncover underlying patterns in cultural differences.

1.2.3 Abstract conceptualization

Teachers use simple Chinese to summarize the cultural connotations of sachets, such as keywords like "health", "peace", and "longing", while incorporating character teaching by writing characters like "Fu" (blessing) and "An" (peace). Students practice relevant Chinese expressions through role-playing or situational dialogues, such as "giving sachets to friends to convey blessings", including phrases like "Wishing you good health!" and "This is a gift for you". The purpose of this activity is to elevate concrete experiences into cultural concepts and linguistic knowledge, establishing connections between symbols and their meanings.

1.2.4 Conduct proactive experiments

Teachers prepare simple materials like non-woven fabric, colored ribbons, and dried flowers to guide students in making sachets. They



encourage students to design patterns blending Chinese and Thai cultural elements. Students then practice language skills by introducing their sachets to classmates in Chinese, such as saying "My sachet is red, symbolizing good fortune", or presenting them as gifts with blessings. This activity aims to internalize cultural understanding through creative expression and communication, achieving synergistic language-cultural output.

In conclusion, the "double helix structure" formed by Byram's intercultural communication competence model and Kolb's experiential learning cycle reveals the synergistic mechanism of intercultural education. Kolb serves as the "skeleton" that provides operational pathways for "learning by doing", while Byram acts as the "essence" that establishes competency development benchmarks. Kolb reduces abstract cultural differences to sensory dimensions, whereas Byram elevates concrete experiences into critical consciousness. While Kolb focuses on learners' cognitive transformation, Byram emphasizes the construction of intersubjectivity.

Based on Byram's intercultural communication competence model and Kolb's experiential learning cycle theory, this paper designs a sachet culture teaching activity for grade 1-2 primary school students in Chinese proficiency at Bamrungwittaya School in Thailand, so as to spread Chinese folk culture and make efforts for cultural teaching.

Table 1

Correspondence between Kolb's Learning Stages and Byram's ICC Dimensions

Kolb stage	Byram's ability was activated
Specific experiences	Cultural literacy (cultural knowledge)
Reflect and observe	Emotional attitude (open and inclusive)
abstract conceptualization	Behavioral skills (symbol translation)



Kolb stage	Byram's ability was activated
Conduct proactive experiments	Critical awareness (ethical negotiation)

2. Literature Review

As an important carrier of human civilization, intangible cultural heritage plays an irreplaceable role in cultural continuity, social cohesion, economic development and mutual learning among civilizations. As a typical representative of traditional Chinese intangible cultural heritage, the value of sachet culture continues to gain new vitality in contemporary society.

The "Core Curriculum for Basic Education 2008" became the guiding document for Thailand's basic education system. The "Strategic Plan to Promote Chinese Language Teaching and Enhance National Competitiveness (2006-2010)" outlined the overarching strategy for Chinese language education in Thailand. In 2014, the Ministry of Education launched the "Chinese Language Teaching Development Plan", further advancing the development of Chinese language instruction. These initiatives have exerted a profound influence on the evolution of Chinese language education in Thailand, Zhu (2010) noted that China and Thailand have established a comprehensive partnership of good-neighborliness and mutual trust. In their bilateral relations, cultural exchanges between the two countries have become increasingly vibrant, standing out as a highlight of their relationship. The frequency, breadth, richness, and extensive participation in these cultural activities demonstrate the vitality of Sino-Thai cultural interactions, which also reflects the closeness of their diplomatic ties. These cultural exchanges have played a positive role in advancing the development of bilateral relations.



Ma and Chang (2019) examined the underlying crises in intangible cultural heritage (ICH) preservation through the lens of cultural identity erosion, emphasizing education as the cornerstone for enhancing cultural agency. They proposed establishing a sustainable social foundation for ICH development through both academic and non-academic education. Wang et al. (2021) explored augmented reality (AR) technology, advocating a paradigm shift in cultural heritage applications from "content-centric" to "user experience-centered". Their three-dimensional design strategy featuring clear navigation, virtual-real interaction, and immersive experiences provided crucial references for human-computer interaction in ICH digitalization. Zhao and Li (2023) focused on universities educational role in ICH transmission. identifying challenges such as "not integrating ICH into campus curricula", "inadequate interdisciplinary integration mechanisms" and "insufficient resource allocation". They proposed deepening the integration of ICH with higher education through systemic frameworks and innovative practices. Li and Chen (2025) addressed international communication barriers by proposing the establishment of overseas ICH dissemination communities, leveraging digital intelligence technologies to enhance precision and emotional storytelling capabilities, while developing scientific evaluation mechanisms. This research highlights the systematic and audience-oriented approaches to ICH promotion under an international perspective.

Yan (2006) analyzed the forms and functions of sachets through historical documents, noting that these traditional pouches were not only crafted from exquisite silk but also made with precious metals like gold and silver. Yan (2012), along with Zeng et al. (2020), explored the origins and evolution of herbal medicine sachets. Their research detailed their



components, examined the theoretical foundations of traditional Chinese medicine (TCM) applications, and provided future development strategies for these culturally significant pouches.

Numerous scholars have conducted research on cultural teaching methodologies in Thailand. Fang (2008), Feng (2014), Gao (2015), Wu (2012), and Zhu (2015) combined their firsthand experiences to investigate and analyze the history and current status of Chinese language education in Thailand. They either designed educational activities or compared Chinese-Thai activity designs, ultimately proposing feasible suggestions based on their findings. Lin (2018) adopted a Thai perspective, conducting literature analysis and interviews to design questionnaires that studied the current state of Chinese cultural dissemination among Thai learners. The research further analyzed challenges faced by Chinese cultural communication in Thailand, summarizing effective methods and strategies for improvement.

In conclusion, cultural education holds a unique position in international Chinese language teaching. As an outstanding component of China's cultural heritage, intangible cultural heritage (ICH) should be preserved and developed. The sachets used during the Dragon Boat Festival exemplify this tradition, which forms an integral part of ICH. However, the dissemination pathways of sachet culture in Chinese language instruction for non-native speakers warrant further exploration. Current research in this field remains limited—either focusing too broadly on cultural pedagogy without specificity, lacking empirical evidence, or failing to establish theoretical frameworks.

This research aligns with the educational collaboration objectives under the "Belt and Road" framework and selects Thailand as a case study



for three reasons: first, the author teaches in Thailand; second, Thailand shares strong Buddhist cultural ties with China; and third, this year marks the 50th anniversary of the establishment of diplomatic relations between China and Thailand

Seizing the opportunity to serve as an International Chinese Language Education Volunteer in Thailand during the 2025 Dragon Boat Festival, the author leveraged the cultural context of this traditional Chinese festival. Using the sachet as an empathic medium for intercultural engagement, this initiative explored pathways for integrating Chinese and Thai cultural cognition.

Research Methodology

The Methodology section begins from the heading Instructional Design Plan onwards, as it details the participants, procedures, instructional design, and implementation of the action research.

1. Instructional Design Plan

Theme: Tiny Sachets, Fragrant Friendship: A Cultural Exchange

Target Learners: Grade 1-2 students (beginner Chinese proficiency level) at Bamrungwittaya School, Buriram, Thailand.

Learning Objectives:

- 1) Cognitive Objective: Understand the symbolic meaning of sachets in Chinese culture (warding off evil, attracting blessings, signifying friendship); Identify 2-3 types of Chinese medicinal herbs used in sachets.
- 2) Skill Objective: Assemble and decorate a sachet combining Chinese and Thai cultural elements.



3) Affective Objective: Increase awareness of traditional Chinese festivals (context: Dragon Boat Festival); Stimulate interest in Chinese culture; Appreciate the cultural commonality between China and Thailand in expressing goodwill and bonding through fragrance ("using fragrance to convey affection").

Activity Preparation Phase:

1) Teacher Preparation of Materials

Source common sachet fillings (e.g. Artemisia argyileaves Artemisia argyi, dried osmanthus flowers, dried tangerine peel); Prepare completed sachet samples for demonstration; Assemble pre-cut student material kits containing: Non-woven fabric pouches (pre-purchased online), Pre-filled dried flower/herb packets, Colored cords/threads, Decorative items (e.g. Buddhist prayer beads); Provide child-safe, blunt-tip scissors; Source traditional Thai aromatic/fragrant materials; Develop the instructional PowerPoint (PPT) presentation and have Thai language translations verified by a native Thai teacher.

2) Cultural Ambiance Setup

Engage students with artistic skills to create a "China-Thailand Friendship Wall" mural on the classroom backboard during free time; Provide students with printed mural templates as guides; Ensure completion before the activity to serve as a photo backdrop for commemorative pictures.

3) Student Health & Safety Precautions

Consult the homeroom teacher in advance to identify any students with known fragrance or material allergies; Prepare alternative, non-allergenic materials for identified students (e.g., fragrance-free dried flowers).



4) Pre-Activity Student Engagement (Advance Task Assignment)
Announce the cultural activity theme to students beforehand;
Distribute a pre-activity task sheet with guiding questions, such as: "What are the most common colors used in Chinese sachets? Why?" "What are common patterns on Chinese sachets and their symbolic meanings?" "Why does China use bitter Artemisia argyi for warding off evil, while Thailand uses sweet lemongrass (Cymbopogon citratus) for blessings?" "In what contexts are Thai Buddhist amulets (phra phim) or flower garlands (phuang malai) used, and what do they symbolize?"; Instruct students to research these questions and bring colored markers/crayons.

5) Utilizing Tutorial Sessions for Preparation

Leverage the supplementary 8th-period tutorial sessions offered at the school; During these sessions, allow students to: Color sachet designs (pre-cutting stage), Sketch preliminary sachet decoration ideas; Purpose: This pre-design phase builds background engagement and minimizes potential delays during the main activity time.

2. Activity Procedure (50 minutes total)

2.1 Engaging Introduction (10 minutes)

Tangible Object Demonstration: Teacher displays pre-prepared sachet samples, asking: "Look! What is this?" to capture attention. Introduces the term "Chinese sachet" and leads pronunciation drills. Students describe the sachets using known vocabulary prompted by teacher questions(e.g. "Is it beautiful?", "Is it big or small?", "What color is it?", "How many sachets is the teacher holding?").

Story Animation: Show a 2-minute promotional video depicting Dragon Boat Festival customs (making/wearing sachets, making zongzi).



Teacher lists common Chinese Dragon Boat Festival traditions, explaining the historical purpose of wearing sachets in ancient China: warding off evil spirits.

Olfactory Identification Game: Teacher introduces 3-4 common sachet ingredients (e.g. Artemisia argyileaves Artemisia argyi, Dried Osmanthus flowers, Dried Tangerine peel) with pronunciation practice. Students pass sample sachets made with different materials to engage senses. Students then close their eyes, smell the sachets, and guess the scents (PPT prompt in Thai: "นี่คือสมุนไพรจีนที่ใช้ทำถุงหอมในเทศกาลไหว้บ๊ะจ่าง!"/ "This is Chinese herbal medicine used to make sachets for the Dragon Boat Festival!").

2.2 Mini-Cultural Lesson (10 minutes)

Visual Comparison: Display images of Chinese sachets vs. Thai Buddhist amulets (phra phim)/flower garlands (phuang malai). Facilitate discussion on: "How do different cultures use objects to convey blessings?".

Group Discussion & Synthesis: Students discuss answers to the pre-activity task sheet questions in small groups for 5 minutes. Groups then share their answers. The Thai co-teacher provides translation support as needed. Teacher synthesizes responses on the board using a comparative table highlighting similarities and differences between Chinese sachets and Thai phra phim/phuang malai.

Basic Chinese Language Instruction: Teach pronunciation and meaning of "Píng'ān" and "Xiāng", using gestures, translation, and images; Integrate vocabulary into simple sentence patterns for daily use (e.g. "Zhù nǐ píng'ān"; "Huā hěn xiāng"); Introduce simple character writing (e.g. "fúblessing, "ān"- peace/safety).



2.3 Hands-on Crafting (20 minutes)

Guided Production: Utilizing the pre-assembled material kits, the teacher first demonstrates each step clearly using the PPT (with Thai translations). Students then craft their sachets step-by-step alongside the teacher. The teacher circulates to monitor progress and provide assistance; students raise hands if they encounter difficulties.

Decoration & Cultural Fusion: Provide Year of the Snake (2025) zodiac stickers. Students use colored markers to draw China-Thailand friendship symbols or patterns on their sachets. Snakes hold profound significance in Thai culture, often depicted as temple guardians in Buddhism. Incorporating snake motifs in 2025 (Year of the Snake) bridges Chinese zodiac traditions with Thai Buddhist symbolism. Students affix snake stickers, color blank areas, and may draw Chinese and Thai flags on their sachets.

2.4 Sharing & Interaction (10 minutes)

Sachet Exchange: Students exchange completed sachets with peers, using the learned Chinese phrases (e.g. "Zhù nǐ píng'ān") to express good wishes. Selected students can present their sachets and blessings to the class; record short video clips of their messages.

Commemorative Photo Wall: Students pose for photos holding their sachets in front of the pre-prepared "China-Thailand Friendship Wall" mural as a background.

Research Results

1. Activity Conclusion Phase: Summary and Reflection

Following the activity, the teacher should: Provide specific feedback based on student engagement and outcomes; Identify and retain



particularly effective elements for future cultural activity implementation; Systematically document any challenges or issues encountered during the activity; Analyze these challenges to formulate concrete strategies for preventing recurrence in subsequent sessions. In essence, this systematic process of documentation and critical reflection serves the primary purpose of enhancing the design and delivery of future pedagogical iterations.

2. Activity Synthesis

The activity involved ten classes across two grade levels (Grades 1 and 2), exhibiting varying Chinese proficiency levels. During the preparatory phase conducted in supplementary sessions, students from all classes precolored sachet designs on paper. Completion rates were notably higher among Grade 2 students. Overall, student engagement and creativity in these sessions were high, resulting in aesthetically pleasing colored designs.

At the commencement of the main activity, students exhibited excitement upon seeing the teacher's completed sachet samples, engaging in peer discussions—a positive indicator of their initial curiosity and receptiveness. Students also responded actively to teacher questions. However, due to the limited, near-beginner proficiency of Grade 1 students, the teacher simplified the introductory interaction. When presenting the sachets, the primary question was "Hǎo kàn ma?", supplemented by color vocabulary drills. Subsequently, a 2-minute video was shown, with the segments depicting sachet making and wearing slowed down to ensure students grasped the process and placement. This introductory phase proceeded smoothly.

The teacher introduced three herbs (Mugwort, Dried Osmanthus, Dried Tangerine Peel) sensorially, prompting students to remember them



through sight and smell. Students were then asked to identify the herbs within sample sachets. Correct answers earned small stars (part of the researcher's point-reward system). Student enthusiasm was high, though Grade 2 students comprehended the rules faster, necessitating demonstrations for Grade 1. Images comparing Chinese sachets with Thai Buddhist amulets (phra phim) and flower garlands (phuang malai) were displayed. After a few minutes of group discussion on pre-assigned task sheet questions, students shared answers.

During the hands-on crafting phase, student engagement markedly increased. The preceding theoretical cultural comparison proved less engaging; consequently, the teacher abridged this section, focusing only on essential points. Some restlessness occurred while distributing materials, with a few students starting prematurely without understanding instructions. Following step-by-step teacher demonstrations and continuous circulation for support, most students successfully completed their sachets. Those needing extra time continued working during the subsequent exchange phase. The activity concluded with a commemorative photo session in front of the "China-Thailand Friendship Wall", documenting the event's fundamental success.

In summary, the sachet cultural activity largely achieved its core objectives. Students gained an understanding of the sachet's symbolic meaning in Chinese culture and could identify 2-3 Chinese medicinal herbs. They successfully assembled sachets integrating Sino-Thai elements. Grade 2 students demonstrated ICC's skills' dimension by accurately assembling hybrid sachets. Byram's affective' dimension was achieved when students voluntarily gifted sachets to teachers-a behavior unprompted in



preintervention surveys. Furthermore, their awareness of traditional Chinese festivals increased, stimulating interest in Chinese culture and fostering an appreciation for the cultural commonality between China and Thailand in using fragrance to convey affection "yǐ xiāng chuán qíng".

Discussion of Results

1. Activity Conclusions

Generally, Grade 2 students demonstrated higher proficiency than Grade 1 students, characterized by stronger Pinyin skills and enhanced comprehension. This disparity was evident during instruction: when explaining rules or demonstrating tasks (e.g. "write with a pen"), Grade 2 students responded more quickly, while Grade 1 students frequently required the teacher to use translation software to clarify instructions.

Several key challenges emerged during the group discussion phase: Significant variance in task completion, some students failed to meet the intended learning objectives; Inconsistent discussion quality, instances of students seeking answers superficially rather than engaging in deep discussion were observed; Topic divergence, discussions occasionally strayed from the intended curriculum focus. It is noteworthy that challenges in restoring classroom order post-discussion, this was particularly pronounced in Grade 1 classes, where regaining a quiet learning environment proved difficult; Uneven response rates, high response rates for simple questions contrasted with difficulty in answering more complex, thought-provoking ones; Difficulty assessing preparation, the intent of the task sheet (promoting independent thought and research) made it challenging to gauge whether students had genuinely engaged with complex questions beforehand.



Leveraging the Dragon Boat Festival context, this sachet-making activity engaged Thai lower-primary students in making, wearing, and exchanging sachets to foster cultural appreciation. Pedagogical focus prioritized cultivating curiosity over theory, capitalizing on students strong manual dexterity, creativity and enthusiasm for hands-on/artistic subjects—effectively aligning with their strengths.

1.1 Cultural Symbol Translation Depth Significantly ImpactsTeaching Effectiveness

The symbolic translation of Chinese sachet culture in Thai primary schools progresses through three tiers—surface-level material substitution (e.g. Thai silk for silk), mid-level functional analogy (e.g. linking its evil-warding function to protective Buddhist phra phim amulets), and deep-level value reconstruction (e.g. framing sachet-making as Buddhist merit-making (tham bun)). This tiered pathway activates host-culture cognitive frameworks (e.g. Buddhist merit) to integrate foreign symbols into students' meaning-making systems, achieving cultural symbiosis while crucially avoiding excessive localization that erodes ICH authenticity. Multimodal teaching (visual, olfactory, tactile) and social practice strategically reinforce this translation efficacy.

1.2 The "Triple Contradictions" of Localization

Within the localization practice of sachet culture instruction in Thai primary schools, three structural contradictions exist.

The fundamental tension between tradition and modernity manifests through the clash between traditional craftsmanship and contemporary media. As technology advances and digital intelligence becomes the dominant force in societal development, this transformation



is particularly evident in education through cultivating digitally literate professionals. In December 2023, the Education Digitalization Expert Advisory Committee of the Ministry of Education held its annual work conference to discuss key issues in promoting education digitalization and help high-quality and balanced development of education. Traditional Chinese intangible cultural heritage crafts require hands-on practice—a crucial component that educators now emphasize. While classrooms are equipped with multimedia tools, teachers actively promote modern teaching methodologies. Although manual production may seem counterintuitive to digital trends, it actually represents a spiritual connection distinct from purely technical interactions.

Concurrently, the sacred-secular dialectic emerges at religious symbol boundaries, exemplified by students equating sachets with Buddhist amulets (phra phim), raising concerns about sacred object commodification; this necessitates material substitutions (e.g. prohibiting gold foil) and semantic clarifications distinguishing general well-wishing from blessing power conferral to preserve cultural translation legitimacy.

Finally, the individual-collective paradox surfaces through younger students' personalized creations (e.g. cartoon stickers) potentially compromising cultural symbol coherence, where excessive creative freedom may diminish core symbol recognizability; resolving this requires establishing a "prescriptive creative framework" permitting localized innovation only while retaining at least two core Chinese elements (e.g. Chinese characters, national flag).

These three sets of contradictions fundamentally represent the interplay of subjectivity, authenticity, and innovation during cultural



adaptation, necessitating dynamic balancing strategies to achieve the sustainable development of cultural dissemination.

This study validates a Chinese sachet teaching intervention in Thai primary schools through dual theoretical lenses: Byram's ICC model and Kolb's Experiential Learning Cycle. Analysis reveals that:

- 1) Within Byram's knowledge dimension, symbolic association linking sachets' evil-warding function with Thai phra phim amulets significantly enhanced students' accurate cognition of Chinese cultural symbols, fulfilling intercultural knowledge construction;
- 2) Within Kolb's cycle, a complete experiential loop (concrete experience \rightarrow reflective observation \rightarrow abstract conceptualization \rightarrow active experimentation) was achieved, enabling knowledge transfer (e.g., gifting sachets with blessings);
- 3) Crucially, the Buddhist tham bun (merit-making) concept acted as a cultural-affective mediator: intensifying reflective observation in Kolb's cycle while anchoring Byram's attitudinal objectives. This transformed student motivation from instrumental to intrinsic value—repositioning sachet-giving as merit-making—and synergized both frameworks to elevate cultural practice from classroom performance to meaningful social action, offering a transferable model for ICH education in Southeast Asia.

2. Localization Innovation Strategies

2.1 Contextual Translation of Cultural Symbols

First, functional analogy bridges the sachet's "warding off evil and attracting blessings" ($q\bar{u}$ xié $n\dot{a}$ fú) with Thai cultural Contextual symbol translation employs functional analogy to bridge cultural cognition: the



detoxifying properties of Chinese Artemisia argyialign with the purification symbolism of Thai holy water, while the blessing significance embodied in sachet five-color threads corresponds to Thai birthday strings (sai sin). Pedagogically, this is operationalized through bilingual visual cards that establish semantic equivalencies, such as Chinese "píng'ān" paired with Thai "โชคดี".

Second, aesthetic fusion design adapts Chinese sachet elements into Thai cultural expressions.

 Table 2

 Aesthetic Fusion of Chinese Sachet Elements and Thai Cultural Adaptations

Chinese Element	Localized Thai Adaptation	Pedagogical Output
Silk "blessing pouch"	Thai silk edging	Thai silk snake-faced sachet
Chinese knot tassel	Temple golden bell	Sound-emitting "blessing
		bell sachet"

2.2 Local Reconstruction of Teaching Resources

First, material substitution solutions are imperative due to geographic, climatic, and logistical constraints that render many original materials locally inaccessible, preventing students from achieving authentic reproductions of Chinese sachets.

 Table 3

 Material Substitution for Sachet Teaching

Item	Substitute Solution
Chinese-style non-woven bag	Thai gauze bag/Rice paper pouch
Dried mugwort	Dried lemongrass/Thai lemon tea
Chinese knot cord	Colored cotton rope + prayer beads



Subsequently, tool safety adaptations are critically prioritized given the young age of the Thai primary student participants; this entails replacing sewing needles with adhesive Velcro closures to eliminate piercing injury risks among younger pupils, while substituting metal clasps with coconut shell buttons serves dual purposes—enhancing physical safety and authentically integrating elements of Thai craftsmanship.

2.3 Creative Integration of Religious Ethics

First, the Buddhist merit-making concept (tham bun) is embedded through pedagogical framing: teachers instruct students that "gifting sachets to ill friends, equivalent to offering robes to monks at temples, constitutes merit accumulation"; this aligns intrinsically with the sachet's dual purpose of blessing and protection in Chinese culture, thereby transforming sachet gifting into both an expression of goodwill and an act of tham bun. Students subsequently perform the wai khru (ไหว้ครู) gesture upon completion, honoring cultural transmission through embodied ritual.

In summary, within the pedagogical context of sachet culture instruction for Thai primary students, "contextual symbol translation" emerges as the pivotal pathway to cultural acculturation; through functional analogies bridging the sachet's apotropaic function (qū xié nà fú) with Thai cultural symbols—such as holy water purification rituals and sai sin birthday strings blessing significance—cultural cognition barriers are effectively mitigated, exemplified by the semantic mapping of Chinese "píng'ān" to Thai "โชคดี", which establishes affective Sino-Thai connections transcending linguistic translation. Aesthetic fusion design further actualizes cultural symbiosis via material carriers (e.g. Thai silk edging, temple bells), transforming sachets from foreign artifacts into localized cultural products—a strategy



validating semiotics cross-cultural transmission principle of "signifier substitution with signified retention", wherein formal adaptations preserve core cultural meanings. Material substitution solutions, responsive to Thailand's geographical and pedagogical constraints, demonstrate intangible cultural heritage (ICH) education's localized adaptability; replacing Artemisia argyiwith lemongrass and non-woven fabric with rice paper not only resolves material accessibility but activates students lived experience through indigenous resources. Tool safety adaptations reflect the "cultural safety" tenet of educational anthropology, prioritizing physical and psychological security during cultural transmission. The "creative linkage" embedding Buddhist merit-making (tham bun) ethics constitutes this study's theoretical innovation; by ethically reconstructing "sachet gifting = ทำบุญ (alms-giving)," Chinese ICH symbols become integrated into Thai students meaning systems—a practice echoing Byram's (2020) "values negotiation" mechanism, wherein host-culture ethical frameworks impart new significance to foreign cultural elements.

Recommendations

1. Teachers: Optimization of Instructional Design

Based on empirical classroom observations, key optimizations include: (1) enhancing cultural symbol translation through visual comparison of Chinese zodiac snakes with Thai "Nāga" mythology to clarify distinctions while reinforcing shared protective narratives (e.g. "serpent deities safeguarding peace"), mitigating lower-grade comprehension gaps; The Chinese snake is a cultural symbol, while the Thai snake god Naga is a religious deity. The Chinese snake emphasizes "natural attributes", while the Thai Naga emphasizes "supernatural powers". (2) addressing language barriers via Total



Physical Response methodology—e.g. pairing "píng'ān" pronunciation with Buddhist prayer gestures for semantic-kinesthetic-affective encoding; (3) reforming assessment systems to establish developmental portfolios tracking tripartite progression (spice identification/cognitive, craftsmanship/skill, gifting willingness/affect) beyond final-product evaluation. Critically, religious items (e.g. prayer beads) require pre-approval verification for temple permissions; substitute with culturally neutral wooden beads to preserve craft integrity while preempting sensitivity risks.

Teachers can also share student sachet-making processes on TikTok, Facebook, and YouTube to globally showcase traditional Chinese craftsmanship. Establish on-campus "sachet display walls" with protective glass casings to exhibit student creations. Launch a "Sachet Culture Cooperative" at Langyang Public Peimin School, enabling students to sell quality sachets at charity stalls—transforming cultural products into economic value while aligning with Thailand's "merit economy" (tam bun) logic.

2. Future researchers: Innovation in Cultural Dissemination Mechanisms

In the future, researchers should pay more attention to the design and dissemination of Chinese culture teaching, and combine the current trend of artificial intelligence in teaching. How to truly apply technology to international Chinese teaching is still a subject worth exploring.

This tripartite cultural dissemination mechanism holds strategic significance for cross-cultural education:

1) Cultural Identity Construction: Social media documentation (e.g. TikTok) combined with physical "sachet walls" creates an immersive cultural field, transcending classroom spatiotemporal limits.



- 2) Educational Value Extension: The cooperative's charitymodel converts cultural learning into social practice—training intercultural skills (e.g. bilingual sachet explanations) and transforming cultural capital into community capital via merit economy, resonating with Thai social ethics.
- 3) ICH Safeguarding Innovation: The integrated digital-physicaleconomic cycle provides sustainable pathways for ICH, elevating dissemination from display to participatory meaning co-creation.

This paradigm represents symbiotic cultural integration— notmechanical transplantation—offering a referenceable model for Belt and Road humanities exchange.

Zhang Chen (2019) proposed that the Thai government should enhance its leadership by gradually refining policy frameworks, intensifying Chinese teacher training to elevate teaching standards, and establishing a big data system for textbook development to achieve localization. He emphasized leveraging Confucius Institutes to deepen the global dissemination of Chinese culture, ensuring systematic and scientific instruction through these institutions while regulating private Chinese education markets to foster a harmonious ecosystem. Additionally, he advocated advancing the "Internet+" globalization strategy in international Chinese education to significantly boost its global reach. These recommendations could also serve as valuable references for future initiatives.

Conclusion

This study, targeting Thai primary students at Buriram's Bamrung Wittaya School, designed and implemented a sachet-based pedagogical initiative, subsequently evaluating its efficacy to propose reflective insights



and recommendations; through systematic localization innovations and transcultural dissemination mechanisms, it pioneers a replicable pathway for propagating Chinese Intangible Cultural Heritage (ICH) within overseas primary education. Key findings demonstrate that the "triadic translation framework" (symbolic—functional—ethical), grounded in Byram's Intercultural Communicative Competence Model and Kolb's Experiential Learning Cycle, effectively reduces cognitive distance toward Chinese culture among Thai pupils—particularly noting that deep ethical translation (e.g. embedding Buddhist merit-making concepts) accelerates cultural integration and pedagogical efficacy. The research concurrently reveals triadic contradictions and tensions inherent in localization processes, resolved via innovative strategies achieving dynamic equilibrium between cultural adaptability and authenticity. In dissemination, the constructed "digital—physical— economic" ecosystem facilitates a qualitative leap from "cultural cognition" to "value co-creation" in ICH education. While offering a reference model for Belt and Road Initiative-participating nations, future studies should longitudinally track cultural behavior sustainability and explore Al-era digital translation pathways for ICH pedagogy, thereby advancing iterative upgrades of cultural dissemination paradigms within civilizational dialogue frameworks.

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Name: Yang Xiang

Highest Education: Bachelor's Degree in

Teaching Chinese to Speakers of Other Languages

Affiliation: Hangzhou Dianzi University



Name: Dr. Ying Zhang

Highest Education: Doctor of Linguistics and

Applied Linguistics

Affiliation: Hangzhou Dianzi University



The Application of Learning Theories for Teaching Thai Language

Phitchayawee Thongklang
Nakhon Ratchasima Rajabhat University
Nakhon Ratchasima, Thailand
E-mail: phitchayawee@gmail.com

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Abstract

This academic article was written based on the author's study, collection, and synthesis of 20 sources, including books, academic articles, research articles, and theses related to learning theories and the teaching of the Thai language, over a period of 20 years (from 2001–2021). It synthesizes problems and models of Thai language instruction, followed by the synthesis of concepts and learning theories, namely cooperative learning theory, constructivist learning theory, 21st-century skills, and the concept of blended learning, as a guideline for teachers to apply in the teaching of Thai language to benefit learners.

Keywords: Learning Theories, Instructional Management, Thai Language

Introduction

Instructional design should begin with a study of the curriculum, learning standards, indicators, and course descriptions, followed by the development of teaching schedules, lesson plans, and teaching methods. Poonpipat et al. (2016) stated that Thai language teachers who received



outstanding teaching awards often employed distinctive teaching methods, used engaging teaching materials, implemented a systematic instructional process, and were dedicated to helping students become literate. Successful Thai reading and writing instruction involves the dedication of time, and most importantly, support from school administrators who prioritize Thai language education.

Teachers have developed their instructional competencies through collaborative lesson development in areas such as understanding the curriculum and subject content, teaching methods, student learning processes, use of instructional media, and assessment and evaluation (Kheawwan, 2016). Similarly, Chaiboon (2003) noted that teachers develop themselves in organizing Thai language learning activities, analyzing the curriculum into lesson plans, understanding instructional activities and evaluation methods—primarily through participation in workshops and study visits. Therefore, teacherdevelopment should involve training andeducational visits in order to effectively apply them in instructional activities.

In addition, Kampo (2017) stated that Thai language instructional development for primary school teachers who graduated in unrelated fields should begin with self-development. Teachers must recognize their responsibilities, engage in continuous learning, and receive support from school administrators in terms of instructional materials, supervision, knowledge exchange, and training opportunities related to Thai language teaching. Teachers who lack expertise in teaching Thai also expressed the need for instructional materials.

From the above, it can be seen that teachers should develop themselves in organizing learning activities, translating curriculum into



instructional plans, and conducting assessment and evaluation. However, due to the issue of teachers who graduated in unrelated majors, there is often a lack of instructional expertise and a need for proper teaching materials. Therefore, teacher development should begin with self-study and the exploration of various learning theories. In this regard, the author presents cooperative learning theory, constructivist learning theory, 21st-century skills, and blended learning as guidelines for application in Thai language instruction.

Problems and Models of Thai Language Instruction

Jullasap (2012) stated that the current state of instructional management reveals that teachers still design learning activities using traditional methods by specifying learning objectives, instructional activities, and assessment. In organizing learning activities, teachers typically ask students to analyze key sentences, the writer's purpose, and the content, then write a summary essay. Group work techniques are often used. Regarding instructional media and learning resources, teachers mainly use textbooks and school libraries. For assessment, teachers evaluate students only after completing the learning activities and apply scoring rubrics based on quality levels. Problems found include the lack of instructional design guidance, students being unable to read or write, limited teaching materials, and the absence of assessment manuals.

In teaching the subject Principles of Thai Language Usage, Ketkaew (2012) observed that most teachers use lecturing and example-based techniques. Instructional media include materials such as flashcards and sentence strips, with school libraries serving as learning resources. For assessment,



teachers evaluate at the end of the lesson and use ratio-based scoring criteria. Instructional problems include lack of support from relevant personnel or agencies, excessive curriculum content compared to the limited number of class periods, which limits time for assessment, and a shortage of teaching materials.

Tay (2009) stated that some problems include teachers teaching Thai without a major in the subject, having little experience in Thai instruction, and being overloaded with work. There is also excessive content in the curriculum, a shortage of teaching media and equipment, lack of knowledge in teaching techniques, media production, and educational assessment. There is insufficient budget to purchase media and materials, lack of lesson plans or inconsistency between teaching and lesson plans, frequent teacher transfers, and schools having too many activities. Teachers expressed the need to learn proper lesson planning and post-teaching reflection, how to create instructional media, adopt practical modern teaching techniques, design critical thinking activities, conduct classroom research, use authentic assessment, develop assessment tools, and receive guidance and supervision from experts.

In addition, Katfak (2012) added that in most schools, the number of Thai language teachers does not exceed five, leading to an insufficient teaching workforce. School budgets for teaching materials are inadequate, and there is a lack of reference books. Students tend to perform at average or fair academic achievement levels.

From the synthesis of problems and instructional models in Thai language teaching, the author found key issues including: the absence of mentors for instructional design, limited use of media and learning resources,



assessment conducted only at the end of instruction, reliance on lecture and example-based teaching, lack of support from related agencies, teachers teaching outside their major, limited Thai language teaching experience, and excessive workloads.

Cooperative Learning Theory

Khemmani (2009, pp. 98–105) stated that cooperative learning involves learning in small groups consisting of 3–6 members with varying abilities who work together to learn. Instructional management focuses on interaction between teachers and learners or between learners and the learning material. It emphasizes collaboration and mutual support in the learning process, where each learner is responsible for their own learning while also helping others in the group to learn.

1. Components of Cooperative Learning

Cooperative learning consists of five essential components: positive interdependence and mutual support, close consultation among group members, individual accountability, the use of interpersonal and small group skills, and group processing. All models of cooperative learning share these characteristics because the learning process is based on mutual support and interdependence. Group members engage in close discussion and interaction. Every member has a role and responsibility that can be monitored. They are required to use interpersonal and teamwork skills to work and learn together, including analyzing the group's working process to enhance both efficiency and quality. The differences among models lie in how the groups are formed, the types of interdependence, testing methods,



group analysis processes, group atmosphere, group structure, the roles of learners, group leaders, and the teacher.

2. Application of the Theory in Instructional Practice

The application of cooperative learning theory in instructional practice involves organizing students into groups and using various techniques to structure lesson planning and teaching to support cooperative learning as follows:

2.1 In lesson planning, teachers should set clear objectives for both knowledge and skill development, determine the group size, and organize students into diverse groups through random assignment or purposeful selection based on gender, ability, and interests. Each group member should be assigned a specific role to encourage close interaction and equal participation in group tasks. Assigned roles such as group leader, observer, secretary, presenter, or reviewer should foster interdependence and mutual support. The learning space should be arranged to facilitate interaction and collaboration, and tasks should be structured so that each student contributes to the group and relies on others.

2.2 In teaching, teachers should prepare learners for group work by clearly explaining the group task, lesson objectives, rationale, details of the work, steps involved, criteria for evaluating the work, expected outcomes, assessment standards, the importance of mutual support, and group rules. They should also explain roles, responsibilities, and any reward system for group achievement. Teachers should provide guidelines for how to help each other, ensure accountability (e.g., through random name calling, testing, or peer evaluation), and explain expected behaviors.



2.3 In monitoring and supporting Groups., teachers should closely monitor the group discussions and cooperation among members, observe their interactions, ensure that all members understand their tasks and responsibilities, and record useful data for further learning. Feedback and reinforcement should be provided, and the teacher should assist as needed to improve group performance. When a group needs help, the teacher may clarify, reteach, or offer additional support. At the end, the learning outcomes from cooperative learning should be summarized to make the learning clearer and more meaningful.

2.4 In Evaluation and Group Process Analysis, teachers should evaluate both the quantity and quality of learning outcomes using various methods and allow students to participate in the evaluation process. The group's work process and learning process should be analyzed, as well as the behavior of each member, to provide opportunities for reflection and improvement.

From the synthesis of cooperative learning theory, it is evident that learners should be given opportunities to learn in ways that reflect real-life situations. In everyday life, learners will face various social interactions, but the current educational system still emphasizes competition and individual work. Therefore, it is necessary to promote cooperative learning, which helps learners to achieve meaningful learning outcomes and develop essential social and collaborative skills for their future.

Constructivist Learning Theory

Khankhamnanta (2012, p. 6) explained that learners can construct knowledge on their own through their thoughts, enthusiasm, and responsibility



for their own learning. They use previously constructed knowledge as a foundation to understand and build new knowledge independently. Phakdeesri (2017, p. 166) added that this theory emphasizes learners as self-directed, monitoring their understanding and knowledge through exchanging ideas with others. Suchitkul (2016, p. 23) further stated that this approach focuses on the learner as the constructor of knowledge, who connects new knowledge with existing knowledge or prior experiences. Roungphaengrungroj (2020, p. 56) concluded that this theory encourages students to engage in activities that help them develop understanding independently until they discover knowledge. The learning activities should be connected to prior experiences or existing knowledge and should emphasize small-group work to facilitate easier understanding.

1. Application of Constructivist Theory to Teaching and Learning
Khemmani (2009, pp. 94–96) outlined how constructivist theory
can be applied to instruction as follows:

1.1 Learning Outcomes

Focus on the process of knowledge construction and awareness of that process. Learning goals must emerge from real practice. The teacher models and trains students in the learning process, and learners must practice constructing knowledge independently.

1.2 Teaching Objectives

Shift the goal from delivering fixed content to learners, to demonstrating processes of interpreting and constructing multiple meanings. Skill development should be effective to the point where learners can apply it and solve real problems.



1.3 Instruction

Learners play an active role in the learning process. They are the ones who organize and create meaning based on authentic contexts— or if not, activities must simulate real interaction with materials, tools, and information. Students investigate, analyze, experiment, make mistakes, and eventually develop understanding on their own.

1.4 The Teacher's Role

The teacher creates a supportive environment for social interaction, collaboration, and knowledge exchange among learners and with others. This deepens, broadens, and diversifies student learning.

1.5 The Learner's Role

Learners are fully responsible for their learning: they choose what to learn, create their own rules, solve problems, resolve conflicts, select partners, and take care of the shared classroom environment.

1.6 Knowledge Construction

The teacher transitions from being a knowledge transmitter to a facilitator and helper. The learning process shifts from "giving knowledge" to "guiding learners to build knowledge".

1.7 Evaluation

Assessment should be varied and include peer assessment, portfolios, and self-assessment. Evaluation must align with the learning activities—using real or simulated tasks.

2. Instructional Practices Based on Constructivist Theory

This theory emphasizes opportunities for cooperative interaction between peers and teachers. Jeeravipoolvarn (2003, pp. 46–48) proposed the following instructional strategies aligned with constructivism:



2.1 Discovery-Based Learning

Develops inquiry skills that help students learn content, ask questions, evaluate their learning, and develop answers on their own. Knowledge is constructed from learner activity, not just found in textbooks. This encourages students to ask questions from experiences or phenomena observed inside or outside the classroom and explore them further.

2.2 Engaging Learners in the Process

Focus on students' prior knowledge and experiences. Learners use these to construct meaning or adapt their existing understanding to align with new experiences or information.

2.3 Cooperative Learning

Facilitates shared inquiry through group work (3–4 members). Students are responsible for their own and others' learning. Group members differ in ability and gender. They collaborate, exchange ideas, and negotiate their individual understanding to build shared meaning and group-level comprehension.

2.4 Scaffolding Instruction

Offer appropriate support so learners can succeed. Gradually reduce support as students grow more responsible for their learning until they are able to solve problems independently.

2.5 Metacognitive Awareness

Train learners to think about how they learn. Learners are given chances to reflect, review their understanding, take responsibility, show curiosity, be initiative, persevere, organize tasks, absorb new data and concepts, and learn how to learn while exchanging knowledge.



2.6 The Role of the Teacher

The teacher helps reshape learners' skills and knowledge for deeper understanding. Teachers listen to learners' ideas, introduce cognitive conflict, and help learners resolve discrepancies through inquiry. Teachers accept learners' ideas, introduce new concepts or tools, and guide them to refine their understanding.

2.7 Dynamic, Ongoing Assessment

Learners construct meaning through interactions with phenomena and others. To assess whether learning has taken place, formative or ongoing assessment is needed. This tracks learners' abilities, understanding, and progress to monitor their development.

3. Steps for Organizing Learning Activities

Dechakup and Yindeesuk (2007, pp. 28–29) proposed five steps for organizing learning activities that emphasize learner-constructed knowledge:

3.1 Introduction Stage

Learners are made aware of the learning objectives and motivated to learn.

3.2 Reviewing Prior Knowledge

Learners express their existing knowledge and understanding about the topic through group discussions or other means. This stage may lead to cognitive conflict or imbalance in understanding.

3.3 Restructuring Thinking

This is a crucial stage that involves clarification and knowledge exchange. Learners deepen their understanding by comparing their thoughts with those of others. The teacher facilitates new thinking through discussion and demonstration. Learners encounter multiple perspectives on a



phenomenon or event, enabling them to generate new ideas or knowledge. They then evaluate this new knowledge through experimentation or deep reflection. At this stage, learners may feel dissatisfied with their previous understanding.

3.4 Application of New Ideas

Learners apply the newly developed ideas or understanding in both familiar and unfamiliar situations, demonstrating meaningful learning.

3.5 Reflection

In the final stage, learners reflect on how their thinking and understanding have changed by comparing their initial and final thoughts. The knowledge constructed by the learners becomes a cognitive structure that is retained long-term and transferable to other contexts.

4. The Role of the Teacher in Constructivist Learning

Thambawon (2001, pp. 41–42) outlined the teacher's roles according to constructivist theory as follows.

4.1 Valuing Student Opinions

Teachers consistently give importance to students' ideas to design learning activities that are appropriate and responsive to individual student needs.

4.2 Challenging Existing Ideas

Teachers design activities that challenge students' previous experiences or beliefs, often by asking thought-provoking questions.

4.3 Connecting Learning to Real Life

Activities should relate to the students' everyday lives to increase relevance and engagement.



4.4 Encouraging Communication

Learning occurs through dialogue, questioning, and joint observation. Each student plays an essential role in the learning process.

4.5 Fostering Independence and Responsibility

Students should be given the opportunity to make decisions, encouraging autonomy, confidence, accountability, willingness to try new things, and the ability to learn from their mistakes.

4.6 Integrating Content Across Subjects

Teachers should create interdisciplinary learning experiences so students see the relationships between different concepts encountered in real life.

4.7 Continuous Assessment as Part of Learning

Assessment should be ongoing and integrated into instruction. Teachers must identify each student's strengths and weaknesses for better planning. This requires skills in observation, listening, questioning, note-taking, and data analysis to understand students' thinking.

4.8 Embracing Mistakes as Learning Opportunities

Mistakes are seen as part of the learning process. They can lead to new knowledge and cognitive development. Teachers should create a safe space where students are encouraged to take risks and learn from failure.

The role of the teacher in organizing learning activities based on constructivist theory is teachers should activate students' prior knowledge, create challenging stimuli through questioning, reflection, or seeking answers, and provide an appropriate environment that encourages student participation in learning. Students should be given opportunities to express



themselves or discuss problems within small groups to facilitate learning. Teachers should prepare questions to ask students in advance and allow time for students to work individually or in groups. This process encourages students to combine their prior knowledge with the exchange of ideas with others to construct their own knowledge.

21st Century Skills Concept

Chaikulpatarachot (2020, p. 8) stated that 21st-century skills refer to the ability to think creatively, think critically, possess subject knowledge, and develop complex skills simultaneously. Modern learners must have advanced learning and adaptability skills to cope with rapid changes in both work and life.

1. Characteristics and Learning Skills in the 21st Century

The Office of the Education Council, Ministry of Education (2017), discussed the aim of developing all learners to possess the characteristics and learning skills required in the 21st century (3Rs8Cs). These are the essential skills for people in the 21st century that everyone must continue to learn throughout their lives, as follows:

- 1.1 The characteristics referred to as the 3Rs consist of reading, writing, and arithmetic.
- 1.2 The learning skills (8Cs) consist of: critical thinking and problem-solving skills; creativity and innovation skills; intercultural understanding and paradigm-shifting skills; collaboration, teamwork, and leadership skills; communication, information, and media literacy skills; computer and information and communication technology (ICT) skills; career and lifelong learning skills; compassion, discipline, morality, and ethics.



The components of 21st-century skills are essential for learners and include skills in learning and innovation, information, media and technology skills, and life and career skills. These three types of skills are necessary for living in society.

2. Conceptual Framework for 21st Century Learning

Dede (2009, as cited in Bamrungchit, 2015, p. 70) proposed a conceptual framework for 21st century learning as follows:

- 2.1 Core subjects include English, reading, language arts, mathematics, science, foreign languages, civics, government, economics, the arts, history, and geography.
- 2.2 Learning and thinking skills include critical thinking and problem-solving skills, communication skills, creativity and innovation skills, collaboration skills, contextual learning skills, and basic media literacy skills.
- 2.3 ICT literacy refers to foundational knowledge in information and communication technology. Students must be able to use technology effectively to learn content and skills such as critical thinking, problem-solving, information usage, communication, innovation, and collaboration.
- 2.4 Life skills involve integrating life skills into lessons to address current challenges through intentional, skillful, and holistic approaches. Life skills include leadership, ethics, responsibility, adaptability, self-efficacy, interpersonal access, self-direction, and social responsibility.
- 2.5 21st-century assessment measures five key outcomes: core subjects, content knowledge, learning and thinking skills, ICT literacy, and life skills. Assessment must integrate high-quality standardized testing.



3. Integrating 21st Century Skills into Teaching and Learning

Khuandee and Jirungsuwan (2015, pp. 18–19) discussed the application of 21st century skills to teaching and learning. The definition of 21st century skills suggests that future learners should possess four key characteristics: ways of thinking—creativity, critical thinking, problem-solving, learning, and decision-making; ways of working—communication and collaboration; tools for working—informationtechnology and data literacy; and skills for living in today's world—citizenship, life and career skills, and responsibility to oneself and society. Therefore, teaching and learning must shift towards the development of 21st century skills. There are various approaches that can be integrated into instruction, as follows:

- 3.1 Project-Based Learning is an instructional approach that enables learners to gain knowledge through real-world work. It provides opportunities for learners to have hands-on experiences, learn problem-solving methods, engage in scientific inquiry, test and prove things by themselves, learn to plan tasks, practice leadership and followership, and develop thinking processes, especially higher-order thinking and self-assessment
- 3.2 Creativity-Based Instruction is one of the learner-centered teaching methods. The instructional design aims to build learners' creative thinking and communication skills, and also instill desirable attributes such as punctuality and responsibility. It shifts the role of the teacher from instructor to facilitator and inspirer, turning teaching into learning.
- 3.3 STEM Education emphasizes equal importance on science, technology, engineering, and mathematics. It prepares Thai youth for 21st-century economic competition, quality of life improvement, and national



prosperity. It promotes the acquisition of knowledge and skills needed for a high-quality life in the future. Learners apply critical thinking and other skills to solve problems, conduct research, invent, and innovate. STEM emphasizes deep understanding, learner participation, and flexible subject matter that encourages real-world learning and relevance.

3.4 Flipped Classroom is a reversed approach to learning where students explore knowledge at home using teacher-provided technology, and engage in hands-on activities in the classroom with the teacher acting as a guide. This instructional style emphasizes experiential learning, enabling learners to participate in activities that foster an optimal learning environment. The outcome enhances learners' ability to learn effectively and retain information, analyze and select appropriate media, and encourages lifelong learning. Teachers need to adapt their instructional strategies to help students develop life skills, thinking skills, and information technology skills.

21st century learning requires students to have content knowledge, the ability to connect knowledge across multiple disciplines, and 21st century skills, including learning and innovation skills, information technology skills, and life and career skills. These outcomes can only be achieved through supportive systems, including curriculum, instruction, professional development, learning environments, and assessment (Khuanaprom, 2015, p. 11).

Blended Learning Concept

Learners education has continuously been developed and researched to maximize their learning potential and to support their physical, mental, emotional, and social development. As a result,



technology has been incorporated into instructional activities in various forms. One particularly interesting instructional model is Blended Learning (BL). This approach combines different learning environments: on one side is the traditional classroom setting where teachers and students interact face-to-face, and on the other is the integration of computer-based online learning environments into classroom activities. This allows learners to continue learning even when they are not physically present in the classroom (Rukbamrung, 2012, p. 31).

Blended learning is a form of education that utilizes diverse instructional media, including both online learning and face-to-face instruction, to accommodate individual learner differences. Its aim is to ensure that all learners can achieve the objectives of the instructional process (Wannapiroon, 2011, p. 45).

Nachairit (2014, p. 27) stated that blended learning is the integration of face-to-face classroom learning and online learning, combining the best features of both modes. Learners can easily communicate with teachers and peers without needing to travel to the institution, as most lessons can be accessed online. Learners and teachers can engage in activities either synchronously or asynchronously.

Additionally, Rattanaphant (2017, p. 32) explained that blended learning integrates teacher-led classroom instruction with learner-centered online learning, using computer and communication technologies to optimize the efficiency of teaching and learning.

1. Blended Learning Concept

At present, technology plays an important role in being applied to teaching and learning and has influenced changes in learners' learning



environments. This allows learners to access lesson content even outside the classroom, without limitations of time or place. Moreover, it enables them to communicate and interact with classmates and teachers by using computers and the internet as a medium to facilitate access to learning beyond the physical classroom. The internet also supports the creation of virtual learning communities, promotes collaborative learning, encourages interaction, and enables information exchange through various channels such as online chats, discussion boards, group chats, and messaging. Therefore, blended learning is an instructional model that is both interesting and plays a significant role in developing learners through both in-class and out-of-class learning experiences (Rukbamrung, 2012, pp. 31–32).

Rungcharoeankiat (2014, pp. 28–31) stated that blended learning emphasizes flexibility and combines various instructional strategies. It uses diverse teaching media, learning activities, and instructional formats to accommodate individual differences among learners, aiming for all students to achieve the learning goals. The concept of blending web-based instructional technology combines a variety of teaching methods and communication formats, regardless of whether or not technology is used. This ensures that learners with varying abilities can learn equally and reach their full potential.

Wannapiroon (2011, pp. 44–45) categorized the concept of blended learning into four approaches:

1.1 The integration of web-based instructional technology with traditional classroom learning, such as virtual classrooms, self-paced learning, collaborative learning, video streaming, audio, and text.



- 1.2 The integration of various teaching methods, such as constructivism, behaviorism, and cognitivism, to achieve the best learning outcomes, whether or not technology is involved.
- 1.3 The integration of all forms of instructional technology with traditional face-to-face classroom instruction, which is the most widely accepted perspective.
- 1.4 The integration of instructional technology with real-world tasks.

2. Designing Blended Learning Instruction

Wannapiroon (2011, pp. 46–47) stated that in order to successfully design blended learning instruction, instructional designers must take into account the predetermined learning objectives, the time frame for learning, and the differences in learners' learning styles and thinking patterns. These serve as foundational data for designing instructional activities, lesson content, and assessment. One of the strengths of blended learning is that it fosters relationships and interaction between learners, instructors, and peers, allowing learners and teachers to become more connected. This facilitates the exchange of experiences, increases understanding and respect among classmates, and enhances learners' self-confidence. Additionally, learners receive immediate feedback, which helps support their individual learning development and enables them to reach their full potential.

The approach to developing web-based blended instruction can be adapted from the ADDIE instructional systems design model, which includes the following five steps:



2.1 Analysis and Planning

This step involves analyzing the learners, implementation procedures, learning structures, and system needs to guide curriculum development. It includes resource analysis for supporting instructional activities, learner needs assessment, planning for implementation, testing, and evaluation. The analysis of project plans, workflows, and overall application leads to the development and refinement of the instructional process and includes organizational needs analysis.

2.2 Design

This step includes determining learning objectives and designing instruction that accommodates individual learner differences. It involves designing types of learning, relevant contexts (e.g., home, work, hands-on practice, classroom, or collaborative learning), and learner roles (e.g., self-directed learning, peer-supported learning, coaching and mentoring).

2.3 Development

The development of blended learning includes three components:

- 2.3.1 Asynchronous Components: such as email, message boards, discussion forums, interactive discussions, knowledge-based tools, e-learning support systems, content management systems (CMS), learning management systems (LMS), writing tools, learner progress tracking systems, articles, training websites, assignment tracking, testing, pre-tests, surveys, guided participation, learning facilitation tools, and recorded conferences with playback capability.
- 2.3.2 Synchronous Components: such as audio conferencing, video conferencing, satellite conferencing, online labs, virtual classrooms, real-time online meetings, and online discussions.



2.3.3 Face-to-Face Components: such as traditional classrooms, laboratories, in-person meetings, peer tutoring, university sessions, consultations, expert groups, support teams, and guided learning sessions.

2.4 Implementation

To implement web-based blended instruction effectively, clear implementation guidelines must be established. This includes planning for implementation, use of technology, and addressing any other relevant concerns to ensure that all stakeholders—students, peers, instructors, and institutions—understand and accept the system correctly. This ensures that blended learning instruction achieves its intended goals.

2.5 Evaluation

Evaluation for web-based blended learning instruction includes assessing learners' academic achievement against standardized criteria, as well as evaluating the cost-effectiveness and budget for developing the instructional system.

Makmeesub (2010, p. 49) stated that in designing web-based blended instruction, instructional designers must take into account the predetermined learning objectives, the duration of the course, and the differences in learners' learning styles. These factors serve as fundamental information for designing learning activities, lesson content, and assessments. One of the key strengths of web-based blended learning is that it enhances the relationship between learners and teachers as well as among learners themselves. This facilitates easier exchange of experiences, fosters understanding and respect among classmates, and increases learners' self-confidence. Additionally, learners receive immediate feedback, which



supports their individual learning development and helps them reach their full potential.

Blended learning is a learning model that focuses on organizing instructional activities by creating an environment and atmosphere conducive to learning. It incorporates teaching methods, learners' learning styles, instructional media, communication channels, and various forms of interaction: between learners and teachers, among learners, between learners and content, and between learners and diverse learning contexts. Instructional activities are designed with flexibility to accommodate individual learner differences, ensuring that each learner can achieve the best possible learning outcomes.

Conclusion

Due to the current problems in Thai language instruction, such as an insufficient number of Thai language teachers, teachers who did not graduate from Thai language education programs, lecture-based teaching methods, inexperienced teachers, lack of knowledge in teaching techniques and media production, frequent teacher transfers, excessive school activities, heavy workloads, insufficient budget for instructional materials, an overloaded curriculum, and an inadequate number of books for study and research, while students also face issues such as irregular attendance, slow learning, parents not valuing education, and inconvenient transportation to school.

Thai language teaching should include lesson plan writing for every class, teaching in accordance with the lesson plans, training in lesson plan writing, encouraging teachers to use a variety of teaching techniques,



providing sufficient budget for teaching materials and equipment, increasing activities and games, inviting curriculum experts for guidance, and ensuring that teachers hold degrees specifically in Thai language education. Therefore, based on the current conditions and problems in Thai language teaching in terms of instructional media, curriculum, assessment and evaluation, and learning activities, it is necessary to be well-prepared in all aspects to develop teachers and improve the efficiency and quality of education.

The author thus proposes guidelines for Thai language teaching for students, including writing a lesson plan for every class, teaching in accordance with the plan, training in proper lesson plan writing, promoting the use of various teaching techniques, utilizing teaching media and equipment, supporting sufficient budgets for the purchase of instructional materials, adapting local materials, assessing students authentically in Thai listening, speaking, reading, and writing using various methods, reviewing after each class, and providing remedial lessons for students who are weak in Thai. At the same time, classroom research should be conducted alongside teaching, unnecessary teacher workloads should be reduced, and parents should be encouraged to participate in monitoring their children's learning.

In addition, teachers should develop themselves in organizing instructional activities and study different learning theories. The author presents cooperative learning theory, constructivist theory, the 21st-century skills framework, and the blended learning concept as guidelines that Thai language teachers can apply for the benefit of learners. Such self-development should be supported by school administrators and relevant agencies to promote training in Thai language instruction.



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Name: Assoc. Prof. Dr. Phitchayawee Thongklang

Highest Education: Doctor of Philosophy

Program in Thai Language

Affiliation: Nakhon Ratchasima Rajabhat University