DESIGN AND DEVELOPMENT OF BOARD GAME WITH THAI DAILY USAGE

SENTENCES FOR CHINESE FAMILY LIVING IN BANGKOK

ZHANG YIRONG

Graduate School Srinakharinwirot University

2024

การออกแบบและพัฒนาเกมกระดานพร้อมประโยคการใช้ภาษาไทยในชีวิตประจำวันสำหรับ
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ZHANG YIRONG

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DESIGN AND DEVELOPMENT OF BOARD GAME WITH THAI DAILY USAGE

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ZHANG YIRONG

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CHINESE FAMILY LIVING IN BANGKOK

BY

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(Assoc. Prof. Dr. Chatchai Ekpanyaskul, MD.)

Dean of Graduate School

ORAL DEFENSE COMMITTEE

.... Major-advisor

(Asst. Prof.Dr.Saowaluck Phanthabutr)

.... Chair

(Assoc. Prof. Dr.Araya Srikanlayanabuth)

.... Committee

(Assoc. Prof. Dr.Noppadol Inchan)

Title	DESIGN AND DEVELOPMENT OF BOARD GAME WITH THAI DAILY USAGE SENTENCES FOR CHINESE FAMILY LIVING IN BANGKOK
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This study investigates the Thai language learning needs of Chinese families living in Thailand, aiming to design a board game that assists them in Thailand in learning practical Thai daily usage sentences. With increasing Chinese migration to Thailand, there is demand for educational tools that combine language acquisition with family interaction, yet no existing board game specifically meets this need.This study employs a mixed-methods approach, recruiting 10 families as the research sample and surveying 100 Chinese residents. The researcher analyzes Thai learning needs by studying content from Pickup Thai and Thaipod101, along with survey results. Preferences for board game art styles are also examined. Six popular language and family board games were evaluated to identify their strengths. These findings, combined with expert interviews, inform the game's design.Findings indicated that Chinese families in Thailand prioritize learning Thai vocabulary, practical sentences, and cultural knowledge, focusing on six key scenarios: weather, restaurant, traveling, transportation, expressing feelings, and greeting & introducing yourself (selected by over 50% of respondents). The resulting board game integrates these elements with CLIL methodology, incorporating Thai cuisine, attractions, etiquette and history in a family-friendly format. The design features hand-painted visuals with color-coded thematic organization.

Keyword : Board game, Thai daily usage sentences, Chinese family in Bangkok

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CHAPTER 1

INTRODUCTION

Research background

There are 22,082 Chinese working in Thailand Ministry of Labor (2024), which is ranked 1st among the total number of foreigners with work permits in Thailand. The number of Chinese working in Thailand is increasing because Chinese companies are relocating their production bases out of China Ratchawat Kuwijit Suwanna (2020). Most of the Chinese with work permits in Thailand work in manufacturing. Some of these Chinese people bring their spouses and children to live in Thailand, which leads to a need to use Thai in their daily lives.

In addition to the group of Chinese people who work in Thailand, another group is families who send their children to study in international schools in Thailand. In this type of family, the husband will work in China, while the wife will resign to take care of the children and live in Thailand with them as a housewife, "following the children". The number of Chinese people who immigrate to follow their children has significantly increased before the COVID-19 outbreak. Most of these Chinese families prefer to send their children to study in international schools in Thailand, especially in Bangkok, Chiang Mai, and Phuket (Kulnaree Nukitrangsan, 2024). Worasak Mahattanobon (2021) defined this group of Chinese people in Thai as" Guardians who are like the children's classmates".

Thailand has many trilingual international schools, Thai-English-Chinese, for students aged 3-18. In China, the educational environment is increasingly competitive. Parents hope that their children can learn a second language from a young age. Learning a second or third language not only means that children improve their abilities, but also improve their communication skills. Since tuition fees for international schools in Thailand are generally between 500,000 and 1,000,000 baht, which is much lower than most international schools in China, many Chinese parents choose to send their children to international schools in Thailand because their children cannot live alone. Mothers will quit their jobs and live with their children in Thailand as housewives.

The data shows that many Chinese parents are willing to send their children to study in international schools in Thailand. The reasons for their choice include: they recognize the Western education system more, hope to use Thailand's international schools as a springboard for their children to attend international universities, Thailand's international schools are cheaper, etc.

Lianhe Zaobao journalist Liu Liu (2023) concluded that international schools in Thailand are mainly concentrated in Bangkok and Chiang Mai. For example, Lanna International School Thailand had a total of 480 international students in 2017, of which 40 were Chinese students (Li Ying, 2017). For example, Singapore International School of Bangkok had a total of 715 international students in 2023, of which Chinese students accounted for 68% (Yoojung Lee & Anuchit Nguyen, 2023).

Thai belongs to the Zhuang-Dong language group of the Sino-Tibetan language family and is the official language of Thailand, primarily used within the country. As a phonetic script, Thai has a relatively large number of phonemes, some of which do not exist in Chinese, such as voiced consonants like ด and บ, the trill ร, and the distinction between long and short vowels. In terms of vocabulary, most basic Thai words are monosyllabic. Thai word formation is relatively simple, primarily combining two or more morphemes. Like Chinese, Thai uses classifiers to categorize nouns. Grammatically, Thai, similar to Chinese, has minimal morphological changes, relying mainly on word order and function words to convey grammatical meaning, and lacks tense variations. Since the basic sentence structure of Thai is similar to Chinese, learning simple phrases is not overly difficult. However, it is essential to first master Thai pronunciation, intonation, and spelling rules accurately to speak the language fluently and correctly (Liao Yufu, 2008).

Teaching media can be divided into four types according to their characteristics: material media, equipment media, Technical or method media and computer media. Paitoon Ananthaket (2017) said that Games-Based Learning (GBL) is "learning through games" or "games for learning", which is a type of learning media that is designed to be fun while gaining knowledge by embedding all the content of the

curriculum into the game and letting the learners play the game while the learners will gain various knowledge of the content through playing the game.

Board games are a type of learning media. They are classified as instructional materials. They are a type of board game that is played on a flat surface, such as a table. They have a variety of playing styles and themes (Rakchan Phuttarangsi, 2017). They are activities that are organized in a game or competition format. They move pieces or play according to the specified rules. They specify the goals, number of players, time, materials, preparation, and steps of the game to develop various skills, develop creativity, and exchange learning experiences together. They use the content, game information, playing behavior, playing methods, and game results to discuss the results and summarize the learning outcomes (Tuenjai Chalermkit, 2002).

Many studies have shown that learning through board games can help students learn languages effectively. As we can see from the research of (Pancharote Luangthanakul, 2021), who developed a board game and a communication exercise set for Grade 11 students majoring in Chinese. It was found that the ability to write and communicate after learning with a board game together with a communication exercise set was higher than before learning. The second thing is that most students feel very satisfied with learning with a board game together with a communication exercise set.

There is a lack of teaching aids on the market for Chinese people to learn Thai. The researcher searched online and found that language institutes that offer Thai language courses for foreign children accept students aged 4-15 years. The website "Longtunmom Home" (longtunmom website), which provides information about education, recommends parents to study a second language with their children. Visitors to this website can find books or videos that parents can bring to study and teach their children before the foreign children come to study at Thai schools. However, there are still very limited media for teaching Thai to foreigners.

From the importance and background of the problem, the researcher is therefore interested in designing a type of board game for basic Thai language learning to help Chinese families in Thailand.

Research objective

1. To summarize the Thai daily usage sentences that Chinese people need to use in Thailand.

2. To design a board game for learning daily usage sentences for Chinese family in Bangkok.

Research question

Chinese family that living in Bangkok have problems using Thai

How board games help Chinese families learn Thai

Scope of the study

Population and Sample: Chinese families in Bangkok.

The questionnaire was distributed to 100 Chinese people who have lived in Thailand for more than half a year.

The target group for this study was 10 Chinese families in Bangkok, totalling about 20 people, including parents and children.

The interviewees were three experts with more than two years of Thai teaching experience.

2. Contents:

1. Information about board games

2. Design theories

3. Marketing research

4. Teaching Thai to Chinese people

3. Geographical scope: Bangkok

4. Data Scope: The daily expressions used in board games are summarized from a questionnaire survey conducted on the target group.

5. Case study:

Three top-selling family board games on Taobao:

1. Super Farmer

2. Rabbit trap

3. Guess who am I

Three top-selling language learning board games on Taobao:

1. I win phonics card game

2. yaofish Word Wiz

3. I win Hit the bill

Benefit of the study

     1. Will provide insights into the needs of Chinese families living in Bangkok for learning Thai

     2. Offer reference value for the design of language board games and Thai teaching aids in the future

<div align="center">

Research Framework

</div>

Teaching Thai to Chinese people	Board game
1. Problems encountered in learning Thai for Chinese people 2. Thai daily usage sentences	1. Information about Board Game 2. Design Theory 3. Board Game Market Research 4. UI and UX Design Theory 5. Lean canvas theory

Board Game for Chinese Family Living in Bangkok
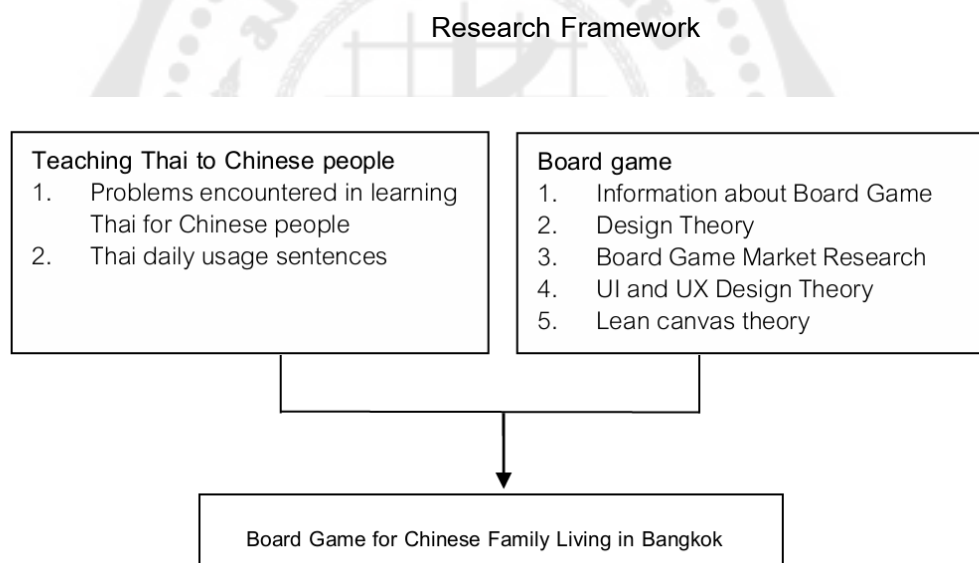
Figure 1 Research Framework

CHAPTER 2
LITERATURE REVIEW

In conducting this research, the researcher studied documents and research related to Thai language teaching board games, parent-child relationships, design, and marketing. The researcher collected, analyzed, and synthesized documents and research related to use as a guideline for the research as follows:

    1. Information about board games

        1.1 Background of board games

        1.2 Relationship between board games and language learning

        1.3 Design trends in board games over the past five years

    2. Design theories

        2.1 Board Game design theory

        2.2 Graphic design theory

        2.3 UI design theory

        2.4 UX design theory

    3. Marketing research

        3.1 Trend and business for teaching Thai to Chinese people

        3.2 Board game market

        3.3 Lean canvas theory

    4. Teaching Thai to Chinese people

        4.1 Problems encountered in learning Thai for Chinese people

        4.2 Thai daily usage sentences

    5. Related research

1. Information about board games

1.1 Background of board game

Board games have a very long history. Traditional board games are usually physical and use some props. Board game is a game played by two or more players. There is a designated playing area with pawns, stones, dice, cards, or other pieces

used to play the game. Board games were discovered in archaeology near Jordan about 7,000 years ago (Wise GEEK, 2015).

Board games in various forms have existed for millennia. Ancient games like chess, checkers, pachisi, Pegity, and mancala date back more than four thousand years. These early games, which originated in regions such as India, China, Egypt, and Nigeria, were gradually adapted and diversified over time, forming the basis for nearly all modern board games. Typically, board games fall into three main types. The first is strategy-based war games, where the aim is to defeat or overpower the opponent— chess, checkers, and go are prime examples. Another category is race games, in which players compete to be the first to reach a designated endpoint. Lastly, there are alignment games, where the objective is to arrange pieces into a specific formation on the board (Jeffrey P & Hinebaugh, 2009).

1.2 Relationship between board games and language learning

If board games are classified by purpose, one of the categories is teaching board games. Multiplayer board games usually require communication and interaction between players, and the fun of board games makes them very suitable for teaching.

Board games, and gameplay in general, can create an engaging learning environment where students freely explore concepts and language without the pressure of making mistakes. Our research revealed that participants were not only eager to practice their second language (L2) skills during gameplay but also benefited from collaborative learning. This peer interaction further reinforced both mathematical understanding and language acquisition (Frederick Poole et al., 2019).

Game-based learning and teaching theory (GBLTT) is a theoretical approach and framework that has measured learning outcomes based on gaming and learning procedure. Generally, Game-Based Language Teaching and Training (GBLTT) emphasizes balancing educational content with engaging gameplay while enhancing learners' ability to retain and apply knowledge in real-world contexts. In contrast, gamification offers a distinct approach by integrating game-like elements— such as experience points, achievements, badges, challenges, leaderboards, and

progress tracking—into non-game settings. A key benefit of gamification is its ability to transform monotonous or routine tasks into dynamic, motivating, and interactive learning experiences. Unlike digital games, board games allow educators greater control over gameplay duration, rules, and stress-inducing factors. When game-based strategies yield positive learning outcomes, teachers should share these effective methods with the broader educational community to encourage classroom adoption. However, even for seasoned educators and board game enthusiasts, successful implementation requires significant preparation time, careful lesson planning, and thorough attention to detail to prevent potential challenges Athanasios Karasimos (2021).

1.3 Design trends in board games over the past 5 years

Family game is a kind of board game with simple rules that can be explained to those who have never played before within 5-10 minutes. However, it is not so easy that parents feel that it is not challenging. Since it is designed for children to play and adults to play well, family-style board games tend to be colorful and emphasize players having to talk, argue, or find opportunities to tease each other quite a lot while playing. The story does not involve violence or serious issues. It can be played and finished within 15-60 minutes. Family games are therefore games with the widest "market" and are the easiest to invite friends who have never played board games to try. The more people try, the more they will get addicted. Family games are like the "hero" that makes modern board games more popular all over the world (Sarinee Achwananthakul, 2016).

Sarinee Achwananthakul (2016) who studied board games played in the world, summarized four main common characteristics:

(1) No elimination of players before the game ends.

(2) Real brain training and skill testing.

(3) Interaction between players.

(4) There is a tempting 'cake' and a smooth 'teaching' mechanism.

In conclusion, designing effective educational board games requires careful consideration of two key elements: (1) gameplay mechanics and (2) narrative and visual design. These factors play a crucial role in ensuring both engagement and learning

outcomes for players. This was consistent with Yen-Ru Shi and Ju-Ling Shih (2015), who mentioned that the guidelines to design game-based learning should have a mechanism congruent with the game stories or contents to generate good participation or learning experiences with amusement through the interaction between the players or during the different game stories. Thus, the best mechanism must be sufficiently flexible for the players to have independence with selecting the actions inside the games, including increasing the challenges for learning that would be suitable to their abilities to prevent their lack of motivation while playing the games (Songwut Egwutvongsa & Nutthapong Tongmoon, 2023).

To sum up, board games have a long history. In the beginning, board games simulated war and had strong combat characteristics. After developing into modern board games, they emphasized more on intelligence and fun, they emphasized face-to-face communication, and they did not no longer emphasize the only winner, but more emphasis on the player's experience when playing. Board games are also used in conjunction with teaching, and research shows that board games aid language learning.

2. Main design theories

2.1 Board Game design theory

Content and Language Integrated Learning Theory (CLIL Theory)

D. Coyle et al. (2010) proposed the CLIL theory, which believes that the focus of language teaching is not only on language, but also on subject knowledge and language. Language is a tool for learning subject knowledge, not just a learning goal. CLIL theory is based on four key elements: Content: subject knowledge, Communication: using the target language for interaction and expression, Cognition: promoting students' critical thinking and cognitive ability, and Culture: helping students understand the culture and background carried by the language. In addition, he also emphasized contextualized learning, guiding language learning through real subject content and tasks, so that students can practice language in specific contexts.

Betul Cimenli Olcars and Bekir Guler (2023) proposed that the use of board games in CLIL classes is a new trend. He explored IC components in CLIL-based family game interactions. His research showed that establishing mutual understanding is accomplished through sixteen different interactional resources including the use of L1 (mother tongue), re-examining the card individually or as a group, using certain discourse markers, hinting through visuals on the card, embodiment of verbal utterances, and checking a vocabulary item from a phone. These findings provide ideas for developing a family board game for foreign language learning.

George Vasilakis and Vasilios Zorbas (2024) compared the level of foreign language speaking in CLIL and ELF classes and found that due to the deeper understanding of the task content, CLIL children tend to prefer more difficult vocabulary and sentences in conversations.

Board Game Design Elements

Jesse Schell (2008) believes that there are 10 core elements of board games: game experience, goals, rules, player interaction, feedback systems, balance, randomness vs strategy, narration and theme, scoring and rewards, and replayability.

Gabe Barrett (2018) discusses some of the key elements of board game design, including: objectives, mechanics, balance, player Interaction, pacing, randomness vs strategy, replayability, theme and narrative, components and aesthetics.

According to the above content, when designing board games, the research should focus on the continuous deepening of the settings of the same scene in the board game, so as to guide players to use more vocabulary, incorporate more Chinese and Thai cultural elements into the selection of vocabulary and scenes, and consider the cooperation and encouragement mechanism between parents and children when playing, taking into account that players are families. Besides, when analyzing excellent board game products selling in the market, the researcher can analyze them based on the above-mentioned board game design elements.

2.2 Graphic design theory

Depending on the type of game, for phrases that appear frequently, instead of repeating yourself and wasting valuable text real estate, just make a symbol that stands in for that piece of text (Daniel Solis, 2011).

Jasper Burch (2021) point out that board game graphic design prioritizes ease of play, readability, and reducing cognitive load. Build your portfolio of beautiful and functional designs with this in mind.

Karolina Cieslak (2022) believes that in game design, colors with wavelengths of light such as red and yellow can be used to attract players' attention. Contrasting colors, that is, colors that are opposite to each other on the color wheel, can guide players' attention.

In the fields of color psychology and color association theory, numerous scholars have contributed extensive research findings.

Junichi Nomura (2014) suggested that colors are closely linked to personality traits, and one's color preferences can reveal their character. For example, those who favor light pink tend to be gentle and elegant, while those who prefer chestnut brown are often caring and kind. People who like red are outgoing, proactive and energetic. People who like mint green are modest, elegant, and insightful, while people who like blue are self-controlled, conservative, and have strong endurance and perseverance.

Pan Jie (2013) noted that yellow, compared to red, evokes a sense of caution upon sight. In industrial settings, it is used to signal warnings—such as yellow traffic lights, heavy machinery, and the yellow safety helmets recommended for schoolchildren crossing streets.

Lu Fang (2014) observed that restaurants often use red, orange, yellow, and green as primary color schemes to stimulate customers' appetites. Meanwhile, softer hues like lavender, light blue, mint green, and pale pink are effective in creating a sense of psychological closeness.

Gao Yuan et al. (2016) introduced the concept of "weather colors," a new framework based on meteorological data, weather conditions, and real-time

atmospheric hues. Blue plays a crucial role in this system, as it is directly associated with the ocean, sky, water, and the universe.

Zhu Lin (2022) concluded in her research that travelers perceive different color associations across various tourism products: 1. Coastal tourism: Dominated by blue, green, and yellow. 2. Tropical rainforest tourism: Primarily linked to yellow, green, and blue. 3. Buddhist tourism: Strongly associated with yellow and red. 3. Snow and ice tourism: Mostly perceived as white, blue, and yellow.

Yuan Chunyan (2023) extracted common features from the shapes associated with card characters to form a basic type that can create a specific theme concept, so that it can be flexibly matched, broken up and reorganized and applied to every aspect of decoration, thereby enriching the overall performance of the theme concept. Another important factor in improving the attractiveness of cards is aesthetic layout: a design method that arranges theme-related elements according to certain rules and aesthetic principles to achieve the best visual effect. Aesthetic layout can help designers better control visual elements.

To summarize the above, for the board game design in this study, the designer will refer to the above design experience, pay attention to the expression and clarity of the game content and rules, use symbols instead of complicated expressions in the design, pay attention to the unification of the colors and elements of similar props, and use contrasting colors on important texts or texts that require players' attention. In the design of scene cards, color psychology theory and color connection theory can be used to select the colors.

2.3 UI design theory

The principle of progressive disclosure involves gradually introducing game elements to players rather than presenting all information simultaneously. This approach is commonly implemented in digital gaming environments, where initial stages serve as basic tutorials before progressively introducing narrative complexity and expanding the virtual environment.

Don Norman (1986) proposed the concept of User-Centered Design in 1986. The core idea is to ensure that the designed product or system can provide the best user experience by deeply understanding the users, conducting continuous testing and feedback.

Randy Pagulayan et al. (2003) pointed out that intrinsic motivation theory suggests behavior stems from an individual's internal needs and desires, while extrinsic motivation involves performing actions to obtain external rewards or social approval.

In summary, when applying User-Centered Design theory in game design, the progression and gradual complexity of game scenarios should be taken into consideration. Players should be allowed to gradually obtain information during the game to avoid giving too much information at one time, which may cause players to have difficulty understanding. In addition, certain encouraging information should be given, not only in terms of game mechanics, but also in terms of the player's psychological and intrinsic sense of accomplishment, so as to guide players to continue playing and actively start the next game.

2.4 UX design theory

Shy Lev Ari (2023) indicated the IA (Information Architecture, or Information Hierarchy as it is sometimes referred to) follows typical UX conventions: Most important to least important - Left to right, top to bottom. Despite all of these grouped cards being mechanically different, they follow a consistent visual pattern of A) cost, B) Type, C) Effect condition and outcome, D) Value, E) Category. Notice that the name of a card (F) is sometimes on top and sometimes not, and this is because the name of the card itself has no in-game effect. The designers cleverly made this one bit consistently to help with player layout. But this story is for another time.

Evelina Venngren (2021) explored the use of synaesthetics design principle in game design, because she observed that in game design, UI design is often limited to text, and implementing symbols, behaviors and sounds can make players feel more interesting and more immersed in the game. But at the same time, it should also be

noted that replacing the original UI with these three elements is based on the original intuition of the player's text UI design.

In summary, the text information on the props should be arranged from left to right and from top to bottom according to importance. Based on language board games, in this study, the design of board games can try to use the synaesthetics design principle. In addition to allowing players to communicate verbally, they can also consider adding body movements to achieve a triple experience of vision, hearing and action, allowing players to be more involved in the game.

3. Marketing research

    3.1 Trend and business for teaching Thai language for Chinese people

Chinese people in Thailand usually need to learn Thai while studying their work. This requires strengthening the collaboration between Chinese and Thai businesses. When they send people to invest or when companies send staff to work in Thailand, they need to be able to communicate with Thais. Managers or supervisors will study Thai before traveling to Thailand. For this reason, countries that need to invest in industries in Thailand need to learn Thai, whether it is Japan, Korea, or even China, which has opened up its country more. Chinese people like to travel to Thailand. Chinese people who work as tour guides need to be able to speak both Chinese and Thai (Akara, 2006).

Ling application, one of the fastest-growing tech companies in Thailand, summarizes the top 10 Thai language teaching institutions, which are:

    1. Mind Your Language School

    2. Thai Language Hut

    3. Chiang Mai University Language Institute

    4. Samui Language School

    5. Language Express School

    6. Patong Language School

    7. AAA Thai Language School

    8. Sandee Thai Language School

9. Baan Aksorn Thai Language School

10. Rak Thai Language School

The teaching fee of these offline institutions is about 30,000 baht per month (Ling Application).

According to Google's recommended ranking, the top ten online platforms for learning Thai are:

1. Pimsleur

2. ThaiPod101

3. Mango languages

4. Glossika

5. Ling

6. Memrise

7. Mondly

8. Write It! Thai

9. Drops

10. Italki

3.2 Board game market

Ying Xiaotian (2019), Vice President of Youka Tabletop Games, an exhibitor at CTE (China Toy Expo) China Toy Fair, summarized four trends in the tabletop game market: 1. Affordable prices, affordable for most people. 2. Educational, combined with early childhood education and adult training. 3. An increase in core players, with students as the main group. 4. Electronic, players seek tabletop games that can be played anytime, anywhere.

Board game industry is mainly distributed in first- and second-tier cities, and the

physical tabletop game store industry has grown a lot. The researcher sees that the

consumer group of Wanban board games is mainly between 25 and 30 years old. The

success of the Three Kingdoms game has led to the rapid development of the board

game market. However, due to the limited design capacity, it is difficult for light players

and novices to join. Currently the consumer support in the board game market is expanding to ordinary consumers. The following is an analysis of the desk industry in 2022.
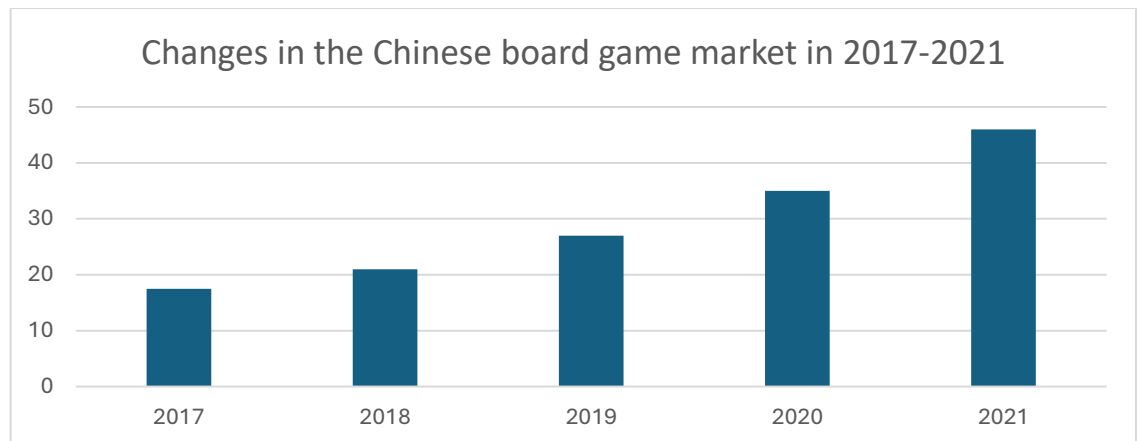
Figure 2 Changes in the Chinese board game market in 2017-2021

Source: https://m.chinabgao.com/freereport/85812.html

3.3 Lean canvas theory

Lean Canvas is a tool that helps startups quickly understand the big picture of the business. Consists of the main overview of the business, 9 factors divided into 2 aspects:

Aspect 1. Product: Problem, Solution, Key, Metrics, Cost Structure.

Aspect 2. Market: Customer Segments, Channels, Unfair Advantage and Revenue Stream.

These two aspects have a Unique Value Proposition as a connecting point.

As Ash Maurya (2012) said, Lean canvas is a simple and powerful tool for entrepreneurs to hypothesise and verify whether the business model is feasible. Lean canvas can help entrepreneurs imagine their own market and the image of their own business.

The core element of the Lean Canvas is the unique value proposition. Steve Blank (2013) believes that the value proposition in the Lean Canvas is a simple and clear message that tells others why your product is different and worth buying.

In summary, the Thai language education market for Chinese people is relatively small, but the demand has always existed due to the Sino-Thai cooperation. Judging from the cost of Thai language education institutions and courses, the Thai language teaching aids market also has room for development. Since this study aims to design and develop a new board game product, the researcher will use the Lean Canvas to test whether the product is feasible in the market. Value positioning is the core factor to be considered from a business perspective when designing this product. This product should have a clear selling point that is different from other similar products.

4. Teaching Thai to Chinese people

4.1 Problems encountered in learning Thai for Chinese people

Hujiang Thai (hujiang) summarizes the problems that Chinese people usually encounter when learning Thai: 1. Tones. 2. Distinguishing between vowels and consonants. 3. Grammar, that is, the order of subject, predicate and object in a sentence. 4. Politeness. 5. Idioms.

Research subjects can use their own agency to explore and create learning opportunities based on their understanding of learning beliefs, understanding of the socio-cultural environment, resources and their own learning style. These opportunities represent effective interactions between learners and the situations created by their agency (Huang Zhiguang & Wu Xueru, 2020).

In conclusion, for Chinese people, the main difficulty in learning Thai is pronunciation and conversation. Factors such as the learning environment, learning motivation, and whether they are encouraged can affect the learning results of Thai language learners.

4.2 Thai daily usage sentences

According to the summary of the Mondly platform, a powerful language learning app with 125 million users worldwide, it divides words and sentences into multiple categories according to usage scenarios, such as: countries, objects and numbers, family, restaurant, time, travel, school, weather, transportation, self-introduction, tourism, fun, hospital, etc.

On a website called Pickup Thai, which was founded by two Thai language teaching experts. On this website, there are courses they published and their first edition books. They combined their teaching experience to summarize 365 Thai daily usage sentences in a book, and attached transliteration, English translation and voice (Pickup Thai website).

These phrases can be categorized into: greetings and introducing yourself, restaurant, communication, family, traveling, transportation, sightseeing, feeling unwell, expressing feelings, weather, hotel, shopping, memory, making friends and miscellaneous. These summarized phrases and sentences are selected from the perspective of foreigners and are more feasible.

Another Thai language education organization, ThaiPod101, released 289 Thai Vocabulary for beginners (ThaiPod101 website).

In general, Chinese people have different needs mainly in pronunciation, and their needs for daily expressions vary depending on the usage scenarios.

5. Related research

In addition to the above theories and contents, the researcher also searched for ten papers related to this study, including five Chinese research papers and five foreign research papers. These papers are related to "board game", "family education", and "language education".

He Lipeng and Luo Qiuxue (2023). Developing Thai Speaking Skills of Chinese Students Using Vocabulary Learning Strategies: The researcher used a sample of 36 students from the Language International Education program at Baise University to study the impact of increasing vocabulary on the fluency of Thai oral expression. The results indicated that after increasing vocabulary through the learning strategies designed by the researcher, the students' proficiency in Thai speaking improved. The researcher further suggested that in Thai language teaching, students should practice oral communication using more everyday language.

Furs Maryna (2019). Comparison of the visual design of English letter cards through letter recognition and memory analysis- Taking Chinese as the mother tongue of children as an example: The researcher found that there is a lack of English teaching aids for young children in Chinese society. Using a sample of 80 children aged 2-3 in Shanghai, the researcher designed various letter cards and interacted with the participants. The study revealed that children remember the letters on these cards better, and the patterns on the cards should be as familiar as possible. Regarding the shape of the letter cards, experiments showed that children prefer the horizontal version of the letter cards.

Jiang Liyin (2023). Research on Parent-child Interaction Mode in Parent-child Board Games of 3-4 Years Old Children: In order to understand the acceptance of children's board games by Chinese parents and the interaction between parents and children, this paper takes 10 families as the research samples. The results show that the parents of preschool children have a low understanding of children's board games, and the popularity of children's board games needs to be improved; The vast majority of parents expressed their willingness to try to play table games with children, but hoped that the board game toys were made of safe materials and the rules were simple and clear. Therefore, this study puts forward the following suggestions: parents should create a relaxed environment, attach importance to the role of stories, use rules flexibly or invite others to join; Academic circles should strengthen the scientific classification

and educational evaluation of desktop games, and strengthen the design and development of localized educational desktop games.

Wang Qinqin (2018). Study of influence on family education in Primary school students' English learning: This paper studies the main family factors that affect primary school students' English learning. Finally, the author puts forward suggestions and countermeasures against the factors of education on pupils' English learning. As follows: 1. Establish a scientific concept of family education and encourage children to study English independently. 2.Create a good family atmosphere and stimulate children's interest in learning English. 3.Improve parents' education and guide children's English learning strategies. 4.Strengthen the cooperation of home-school to form a synergy to promote children's English learning.

Dong Hui (2022). The design of children's cultural board games from the perspective of embodied interaction: This paper explores the possibility of embodied interaction and related theories in the design of children's board games. The research conclusion constructs an interactive design model for cultural board games based on the model and case analysis, and designs a cultural board game based on this, and also supplements relevant design principles and strategies.

Nawarat Daengtung and Namthip Ongardwanich (2022). The Development of Achievement on Types of Words in Thai Language by Using Game Based Leaning And Board Games for Grade 3 Students: The researchers developed a learning management plan on the topic of types of Thai words through games combined with board games for grade 3 primary school students. The research instruments used in the research were 1) 3 board games on types of Thai words 2) 5 learning management plans on types of Thai words, totaling 10 hours 3) An achievement test on types of Thai words, a multiple-choice test with 4 options, 20 questions, full score 20 points, and 4) a questionnaire on satisfaction with the organization of learning activities on types of Thai words through learning through games combined with board games. The research found that 1) Experts' judgment showed that the results of the development of the learning management plan on types of Thai words through learning through games

combined with board games For the third grade primary school students, it is at the most appropriate level. 2) The students after learning were significantly higher than before learning management at the statistical level of 0.05. 3) The students had the highest level of satisfaction with learning through board games.

Piyaphong Nganlasom (2020). Development on a bord game to enhance learning development and attitude toward Thai literature of seventh grade students: This study involved the design and implementation of an educational board game as supplementary instructional material to enhance students' academic performance and foster positive learning attitudes in Thai literature. Experimental results from the target group demonstrated that participation in the Nirat Phu Khao Thong board game intervention led to statistically significant improvements in learning outcomes ($p < .05$). Post-intervention assessments also indicated exceptionally favorable attitudes toward Thai literature among participants.

Darunee Pluengthuk; Piyanan Hirunchalothorn; & Pattamavadee Lehmongkol (2023). The Effects of Board Game Activity Provision on Collaboration Skills of Young Children: The researcher aimed to study the impact of playing board games on children's cooperation skills. This study revealed that young children who have attended board game activity provision have higher collaboration skills. Noteworthy, the subjects showed improvement in all three focused collaboration skills. The highest average score was cooperation skills, followed by trust and empathy. In detail, for cooperation behavior, the subjects showed enthusiasm to share opinions with others and respected decisions made by a group. For trust behavior, the subjects provided help to each other to accomplish their missions in work and play. Lastly, for empathy behavior, the subjects were able to express their feelings and respond to others' feelings respectively.

Pancharote Luangthanakul (2021). Application of board game with Chinese writing and reading exercises for communication skill development of Chinese major Mattayom sueksa 5 student: The researcher is aimed to study and design teaching media for learning Chinese. The sample group is 25 secondary school students in Grade 5, majoring in Chinese, at Srinakharinwirot University Prasarnmit Demonstration

School (Secondary). The results of the research show that students' Chinese communication ability (speaking) and Chinese communication ability (writing) after studying were higher than before studying at the highest level. Students felt satisfied with the benefits and learning activities. The researcher suggested that further research can have students collaborate in creating a board game set. The communication exercise set can control other aspects of Chinese language.

Verónica Estrada-Plana et al. (2024). Benefits of Playing at School: Filler Board Games Improve Visuospatial Memory and Mathematical Skills: This paper aims to test whether board games affect children's memory and calculation ability. The researchers used children aged 8-10 as the research sample. Through periodic testing and recording, the findings demonstrated meaningful transfer effects across both memory and mathematics training interventions. Among third-grade participants, engagement with mathematical games yielded moderate to substantial effect sizes relative to the control condition, particularly in visuospatial working memory capacity, memory updating processes, numerical operations, and ordinal number processing. Fourth-grade cohorts exhibited small but statistically significant effect sizes in problem-solving abilities following memory game interventions compared to the control group. These results suggest that structured board game interventions may serve as an effective pedagogical approach for fostering cognitive development and mathematical competencies in elementary school students.

CHAPTER 3
RESEARCH METHODS

The title of this research is "Design and development of Board Game with Thai Daily Usage Sentences for Chinese Family Living in Bangkok", and the third chapter mainly uses a mixed research method, which involves both corresponding questionnaires and relevant interviews. In addition, Before the final product is made, the prototype will be tested. This chapter is specifically divided into the following steps, as shown in the figure.

Step-by-step diagram of the research procedures

Step 1: To summarize the Thai daily usage sentences for board game

Step 1.1: Summarize form Pickup Thai website and Thaipod101 website

Step 1.2: Questionnaire survey from 100 Chinese people who live in Thailand

Step 2: To analyze board game

Step 2.1: Analyze family board game from 3 elements: rule, player interaction, game experience.

Step 3: Design a prototype

Step 4: Group test

Step 5: Check business plan

Step 6: Final product
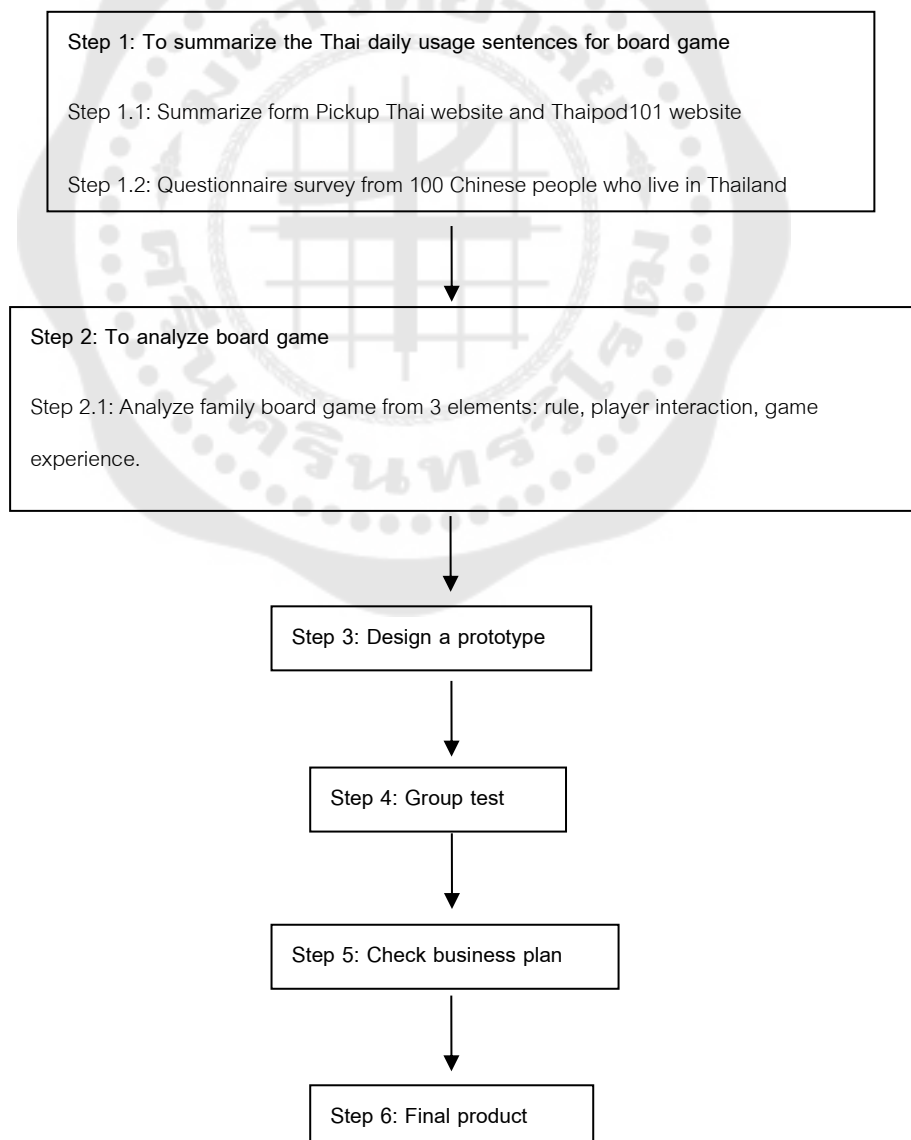
Step 1: To summarize the Thai daily usage sentences for board game

Step 1.1: Summarize from Pickup Thai website and ThaiPod101 website

Pickup Thai and ThaiPod101 have summarized 365 Thai phrases and 289 Thai vocabulary for daily usage respectively. The researcher list and summarize the overlapping parts, totaling 223 sentences, and record their corresponding pronunciations for subsequent questionnaire surveys and board game design.

Pickup Thai is a Thai language teaching platform founded by Khru Yuki Tachaya and Khru Miki Chidchaya. It has a complete brand identity and self-developed products, including Thai textbooks, instructional videos, and audio materials. In addition to selling Thai learning resources, the website also offers its own branded merchandise. The platform provides one-on-one lessons to students from various countries, including Japan, China, and the United States. It has over 10,000 followers on social media.

ThaiPod101, developed by Innovative Language, is another Thai language learning platform offering courses from beginner to advanced levels. It caters to learners of all backgrounds and provides free audio and video learning materials on social media. The platform boasts over 300,000 followers on social platforms.

Step 1.2: Questionnaire survey from 100 Chinese people who live in Thailand

The 100 survey subjects must meet the following requirements: they must be Chinese who have lived in Thailand for more than half a year and live in Thailand as a family unit, including a mother and child family, a father and child family, or a parent and child family.

The questions in the questionnaire can be divided into four parts:

Part 1. Basic information of the respondents (personal information, channels from which they learned Thai, etc.)

Part 2. Preferences for board game content (game duration, board game scenes, difficulty, etc.)

Part 3. Preferences for board game art style (color, style, etc.)

Part 4. Purchase intention

Step 1.3: Interview three Thai language teaching experts who have experience **in teaching Thai to Chinese people for more than 2 year**.

The basic information of the three experts who participated in the interview is as follows:

Table 1 Basic information of the three experts

Name	Age	Occupation	Teaching experience
Pat	44	University Professor	Over 10 years
Wipawee Khorsawat	31	Thai teaching blogger	3 years
Supachai Wirasa	35	Institution Thai teacher	8 years

The questions asked in the interview are divided into four parts:

Part 1. Thai teaching experience

Part 2. Board game content design

Part 3. Marketing suggestions

Part 4. Open questions

In the fourth part, open questions will ask different questions based on the areas of expertise of the three experts.

Step 2: To analyze board games

Based on the total sales of Taobao, the researcher finds three family board games and three language teaching board games, a total of 6 games, and analyzed the player interaction, game experience, and rules of the 3 family board games, the goal, rules, components and aesthetics of the 3 language teaching board games.

Search for "family board game" on Taobao, and the top three products by sales volume in the past 30 days are (Taobao, as of 01, 2025):

1. Super farmer

2. Rabbit trap

3. Guess who am I

Search for "English board game" on Taobao, and the top three products by sales volume in the past 30 days are (Taobao, as of 01, 2025):

    1. I win phonics card game

    2. yaofish Word Wiz

    3. I win Hit the bill

Step 3: Design a prototype

Step 4: Group test

The testing team is divided into two groups.

The first test group consists of 10 Chinese families in Bangkok, serving as the sample population for this study. In total, there are about 20 people, including both parents and children. The sample of this group needs to have lived in Thailand for more than half a year.

The second group is composed of 3 Thai language teaching experts who have experience teaching Chinese learners. These three experts need to have more than 2 years of Thai teaching experience and more than 1 year of residence in Thailand.

Step 5: Check business plan

Use the Lean Canvas business model to test whether the product is viable in the market

Step 6: Design a final product

CHAPTER 4

DATE ANALYSIS AND RESEARCH RESULTS

This chapter will analyze the research objectives and use the research methodology in Chapter 3.

Step 1: To summarize the Thai daily usage sentences for board game

Step 1.1: Summarize form Pickup Thai website and ThaiPod101 website

Research Results:

The researcher reviewed 365 commonly used sentences summarized on the Pickup Thai website (https://pickup-thai.com/) and 289 key words summarized on the ThaiPod101 website (https://www.thaipod101.com/dashboard). In addition, 35 sentences were excluded because they were not suitable for family board games, such as swear words and sentences about love topics. Of the remaining 330 sentences, 223 contain the keywords of the ThaiPod101 website. The 223 sentences are divided into 15 categories, of which 199 sentences can be divided into 14 categories according to usage scenarios, namely greetings & introducing yourself, family, communication, making friends, expressing feelings, memory, transportation, sightseeing, travelling, hotel, weather, restaurant, shopping, hospital. And the last category is miscellaneous that can be used in multiple scenarios. There are 24 sentences in this category.

The 330 sentences are as follows and the sentences marked in yellow in the first column contain keywords:

Table 2 330 sentences and their classification and translation

สวัสดี	Hello. / Bye.	Greetings & introducing yourself
เป็นไงบ้าง	How are you?	Greetings & introducing yourself
สบายดีไหม	How are you?	Greetings & introducing yourself
ขอโทษนะ	Sorry / Excuse me.	Greetings & introducing yourself
ขอบคุณมาก	Thank you very much.	Greetings & introducing yourself
ไม่เป็นไร	That's OK. / You're welcome.	Greetings & introducing yourself

Table 2 (Continued)

ฉันเคยมาไทยสี่ครั้งแล้ว	I've been to Thailand four times.	Greetings & introducing yourself
ไปก่อนนะ แล้วเจอกัน	I have to go now. See you.	Greetings & introducing yourself
คุณชื่ออะไร	What's your name?	Greetings & introducing yourself
ฉันชื่อแอนน์	My name is Anne.	Greetings & introducing yourself
คุณเป็นคนอะไร	What nationality are you?	Greetings & introducing yourself
ฉันเป็นคนอเมริกัน	I'm American.	Greetings & introducing yourself
ฉันไม่ใช่คนจีน	I'm not Chinese.	Greetings & introducing yourself
คุณอายุเท่าไหร่	How old are you?	Greetings & introducing yourself
ฉันอายุสิบแปด	I'm 18.	Greetings & introducing yourself
คุณทำงานอะไร	What do you do?	Greetings & introducing yourself
ฉันเป็นครูสอนภาษาอังกฤษ	I'm an English teacher.	Greetings & introducing yourself
คุณมาทำอะไรที่เมืองไทย	What did you come to Thailand for?	Greetings & introducing yourself
ฉันมาเที่ยว	I'm here for vacation.	Greetings & introducing yourself
ครอบครัวฉันอยู่ที่นี่	My family lives here.	Greetings & introducing yourself
บ้านคุณอยู่ที่ไหน	Where do you live?	Greetings & introducing yourself
บ้านฉันอยู่นิวยอร์ก	I live in New York.	Greetings & introducing yourself
คุณเกิดวันที่เท่าไหร่	When is your birthday?	Greetings & introducing yourself
ฉันเกิดวันที่ 15 กรกฎา	I was born on July 15th.	Greetings & introducing yourself
คุณเกิดปีอะไร	What year were you born?	Greetings & introducing yourself
ฉันเกิดปี 1975	I was born in 1975.	Greetings & introducing yourself
เบอร์โทรศัพท์คุณเบอร์อะไร	What's your telephone number?	Greetings & introducing yourself
โทรศัพท์ฉันเบอร์089-123-4567	My telephone number is 089-123-4567	Greetings & introducing yourself
ฉันไม่ค่อยมีเวลาว่าง	I don't have a lot of free time.	Greetings & introducing yourself
ฉันงานยุ่งมาก	I'm very busy with work.	Greetings & introducing yourself
ฉันทำงานเป็นครู	I work as a teacher.	Greetings & introducing yourself
ฉันกำลังหางานอยู่	I'm looking for a job now.	Greetings & introducing yourself
ฉันเกษียณแล้ว	I'm retired.	Greetings & introducing yourself
ฉันเป็นเจ้าของธุรกิจ	I'm a business owner.	Greetings & introducing yourself
ฉันมีธุรกิจที่เมืองไทย	I have a business in Thailand.	Greetings & introducing yourself
ฉันเป็นฟรีแลนซ์	I'm a freelancer.	Greetings & introducing yourself
ฉันมีหมาสองตัว	I have two dogs.	Greetings & introducing yourself

Table 2 (Continued)

ฉันไม่เคยไปต่างประเทศ	I have never been abroad.	Greetings & introducing yourself
ฉันเรียนภาษาไทยเพราะอยากพูดได้	I study Thai because I want to be able to speak the language.	Greetings & introducing yourself
คุณมีพี่น้องกี่คน	How many siblings do you have?	Family
ฉันมีพี่น้องสองคน	I have two siblings.	Family
ฉันเป็นลูกคนเดียว	I'm an only child	Family
พ่อแม่ฉันอยู่ฝรั่งเศส	My parents live in France.	Family
คุณมีลูกรึยัง	Do you have children?	Family
ฉันมีลูกสามคน	I have three children.	Family
ฉันมีลูกสาวหนึ่งคน ลูกชายสองคน	I have one daughter and two sons.	Family
ลูกคนโตฉันชื่อ Joshua	My eldest child is named Joshua.	Family
ลูกคนกลางฉันเรียนอยู่ป.1	My middle child is in first grade.	Family
ลูกคนเล็กฉันยังไม่เข้าโรงเรียน	My youngest child is not in school yet.	Family
ลูกฉันอายุสี่กับห้าขวบ	My children are 4 and 5 years old.	Family
อะไรนะ	What was that? / Repeat that.	Communication
ได้ยินไหม	Did you hear me? / Can you hear me?	Communication
ช่วยพูดช้าๆหน่อยได้ไหม	Can you speak more slowly?	Communication
คุณพูดอังกฤษได้ไหม	Do you speak English?	Communication
ฉันพูดไทยได้นิดหน่อย	I can speak a bit of Thai.	Communication
ฉันพูดไทยไม่ได้	I can't speak Thai.	Communication
ฉันพูดไทยได้ แต่ไม่เก่งมาก	I can speak Thai but not very well.	Communication
ฉันไม่เข้าใจภาษาไทย	I don't understand Thai.	Communication
ฉันไม่เข้าใจที่คุณพูด	I don't understand what you're saying.	Communication
เข้าใจที่ฉันพูดไหม	Do you understand what I'm saying?	Communication
พูดอีกทีได้ไหม	Can you repeat that?	Communication
หมายความว่ายังไง	What do you mean?	Communication
คำนี้แปลว่าอะไร	What does this word mean?	Communication
คำว่า airport ภาษาไทยพูดว่ายังไง	How do you say "airport" in Thai?	Communication
มีคนพูดภาษาอังกฤษเป็นไหม	Is there anyone who can speak English?	Communication
คุณมีเพื่อนเป็นชาวต่างประเทศไหม	Do you have any foreign friends?	Making friends
ไปกินข้าวกันไหม	Do you want to have lunch/dinner with me?	Making friends
ไปดูหนังกับฉันไหม	Do you want to watch a movie with me?	Making friends

Table 2 (Continued)

ไปหาอะไรกินกันเถอะ	Let's go get something to eat.	Making friends
คุณชอบเที่ยวทะเลไหม	Do you like to go to the beach?	Making friends
คุณเคยไปอังกฤษไหม	Have you been to England?	Making friends
ฉันอยากมีเพื่อนคนไทย	I want to have Thai friends.	Making friends
พรุ่งนี้คุณจะทำอะไร	What are you going to do tomorrow?	Making friends
กำลังทำอะไรอยู่	What are you doing?	Making friends
ตอนนี้ว่างไหม	Are you free now?	Making friends
ว่างเมื่อไหร่	When are you free?	Making friends
เจอกันกี่โมงดี	What time should we meet?	Making friends
คุณมีเฟสบุ๊คไหม	Do you have a Facebook account?	Making friends
เฟสบุ๊คฉันชื่อ Olivia Johnson	My Facebook account is Olivia Johnson	Making friends
แอดฉันด้วย	Add me.	Making friends
Line คุณไอดีอะไร	What's your LINE ID?	Making friends
โทรกลับหน่อย	Call me back.	Making friends
ฉันชอบออกก าลังกาย	I like to work out.	Expressing feelings
ฉันไม่ชอบเล่นกีฬา	I don't like to play sports.	Expressing feelings
ฉันชอบท าอาหาร	I like to cook.	Expressing feelings
ฉันไม่ชอบรถติด	I don't like traffic jams.	Expressing feelings
ฉันไม่ค่อยชอบอาหารจีน	I don't like Chinese food very much.	Expressing feelings
ฉันชอบเมืองไทยมากๆ	I love Thailand.	Expressing feelings
ฉันไม่ชอบอากาศหนาวเลย	I hate cold weather.	Expressing feelings
คุณชอบหมาหรือแมวมากกว่า	What do you prefer, dogs or cats?	Expressing feelings
ฉันชอบหมามากกว่าแมว	I like dogs more than cats.	Expressing feelings
คุณชอบนั่งเครื่องบินไหม	Do you like to fly on airplanes?	Expressing feelings
เวลาว่าง คุณชอบท าอะไร	What do you like to do in your free time?	Expressing feelings
ฉันดีใจมากที่ได้มาอีก	I'm very happy to be back here.	Expressing feelings
ฉันเสียใจมากที่ไม่ได้ไปกับคุณ	I'm very sad I didn't go with you.	Expressing feelings
ฉันตื่นเต้นมากที่จะได้ไปตลาดน้ำ	I'm very excited to go to the floating market.	Expressing feelings
ฉันกลัวหลงทาง	I'm afraid to be lost.	Expressing feelings
น่าเสียดาย	What a shame.	Expressing feelings
ยินดีด้วยนะ	Congratulations.	Expressing feelings

Table 2 (Continued)

สุดยอดเลย	That's awesome!	Expressing feelings
ดีใจด้วยนะ	I'm happy for you.	Expressing feelings
เสียใจด้วยนะ	Sorry to hear that.	Expressing feelings
ค่อยยังชั่ว	That's a relief.	Expressing feelings
ฉันผิดหวังกับโชว์นี้มาก	I'm very disappointed with this show.	Expressing feelings
ฉันไม่รู้ว่าเขาคือใคร	I don't know who he or she is.	Memory
ฉันไม่รู้จักผู้หญิงคนนั้น	I don't know that woman.	Memory
คุณรู้ไหมว่าเขาอยู่ไหน	Do you know where he or she is?	Memory
ฉันคิดว่าภาษาไทยไม่ยาก	I don't think Thai is difficult.	Memory
คุณจำ ได้ไหมว่าฉันชื่ออะไร	Do you remember what my name is?	Memory
ฉันจำ ไม่ได้ว่าวางไว้ที่ไหน	I don't remember where I put it.	Memory
ฉันไม่แน่ใจว่ามีรึเปล่า	I'm not sure if there is / if I have it.	Memory
ฉันนึกว่าไม่ต้องเสียเงิน	I thought I didn't have to pay.	Memory
ตอนนี้ กี่โมงแล้ว	What time is it now?	Transportation
BTS ไปทางไหน	Which way to BTS?	Transportation
ไป Paragon เท่าไหร่	How much is it to go to Paragon?	Transportation
ไกลไหม	Is it far?	Transportation
ใช้เวลาเท่าไหร่	How much time does it take?	Transportation
ใกล้ถึงยัง	Are we almost there?	Transportation
ไป BTS สถานีอโศก	To Asoke BTS station.	Transportation
ช่วยกดมิเตอร์ด้วย	Please turn on the meter.	Transportation
ไปโรงแรม Novotel เป็นไหม	Do you know how to get to the Novotel hotel?	Transportation
รู้จักตึกใบหยกไหม	Do you know the Baiyoke tower?	Transportation
ขึ้นทางด่วนเลย	Go ahead and get on the express way.	Transportation
ค่าทางด่วนเท่าไหร่	How much is the express way toll?	Transportation
ขับช้าๆหน่อย	Please drive slowly.	Transportation
เลี้ยวซ้ายซอยหน้า	Turn left at the next street.	Transportation
ถึงสี่แยกแล้วเลี้ยวขวา	Turn right at the intersection.	Transportation
จอดตรงนี้เลย	Please stop here.	Transportation
จ่ายแบงค์พันได้ไหม	Can I pay with a 1000-baht bill?	Transportation
ไม่ต้องทอน	Keep the change.	Transportation

Table 2 (Continued)

	Thai	English	Category
	วัดพระแก้วไปยังไง	How do I go to the Grand Palace?	Sightseeing
	พิพิธภัณฑ์ไหนน่าไปบ้าง	What museums are worth visiting?	Sightseeing
	ที่ไหนมีขายของฝากบ้าง	Where can I find souvenirs?	Sightseeing
	ร้านไหนขายถูก	Which shops have good prices?	Sightseeing
	ห้องน้ำอยู่ไหน	Where is the bathroom?	Sightseeing
	มีแผนที่ไหม	Do you have a map?	Sightseeing
	มีโบรชัวร์ภาษาจีนไหม	Do you have brochures in Chinese?	Sightseeing
	ค่าเข้าคนละเท่าไหร่	How much is the admission fee per person?	Sightseeing
	ต้องเสียค่าเข้าไหม	Is there an admission fee?	Sightseeing
	เด็กเข้าฟรีไหม	Do children get in for free?	Sightseeing
	ซื้อตั๋วที่ไหน	Where do I buy the tickets?	Sightseeing
	ขอตั๋วผู้ใหญ่สามใบ	Three adult tickets, please.	Sightseeing
	มีส่วนลดไหม	Is there a discount?	Sightseeing
	ข้างในถ่ายรูปได้ไหม	Can I take pictures inside?	Sightseeing
	แถวนี้ร้านไหนอร่อย	What restaurant is good around here?	Sightseeing
	แถวนี้มีตู้ ATM ไหม	Is there an ATM around here?	Sightseeing
	ห้างนี้มีธนาคารอะไรบ้าง	What banks are there in this mall?	Sightseeing
	เต็มรึยัง	Are you full?	Sightseeing
	ต้องจองไหม	Do I need to make a reservation?	Sightseeing
	ขอจองสามที่ ห้าโมงเย็น	I'd like to make a reservation for three at 5pm.	Sightseeing
	จองไว้แล้ว ชื่อ Emily	I made a reservation under the name Emily.	Sightseeing
	มีรอบกี่โมงบ้าง	What are the show times?	Sightseeing
	รอบต่อไปกี่โมง	What time is the next show?	Sightseeing
	รอบนึงกี่นาที	How long is the show?	Sightseeing
	มีพักไหม	Is there a break?	Sightseeing
	ยังเปิดอยู่รึเปล่า	Are you still open? / Is it still open?	Sightseeing
	ช่วยถ่ายรูปให้หน่อยได้ไหม	Can you take a picture for me?	Sightseeing
	ถ่ายรูปให้ไหม	Do you want me to take a picture for you?	Sightseeing
	ทางออกอยู่ตรงไหน	Where is the exit?	Sightseeing
	ที่นี่หยุดวันไหน	What day are you closed?	Sightseeing
	ที่นี่เปิดปิดกี่โมง	What are the opening times	Sightseeing

Table 2 (Continued)

ที่ไหนมีขายน้ำบ้าง	Where can I buy water?	Sightseeing
รถเมล์สายไหนไปถนนข้าวสาร	Which bus goes to Khaosan road?	Sightseeing
ตลาดสามย่านเดินไปยังไง	How do I get to Samyan market by foot?	Sightseeing
คุณจะไปไหน	Where are you going?	Travelling
คุณจะไปนานแค่ไหน	How long are you going there for?	Travelling
คุณจะไปยังไง	How are you going there?	Travelling
ฉันจะนั่งรถไฟไป	I'm going there by train.	Travelling
ฉันจะบินกลับยุโรป	I'm flying back to Europe.	Travelling
คุณจะไปสายการบินอะไร	What airline are you flying on?	Travelling
คุณจะกลับเมื่อไหร่	When will you come back?	Travelling
คุณจะมาไทยอีกทีเมื่อไหร่	When will you come to Thailand again?	Travelling
ฉันจะเช่ารถขับ	I'm going to rent a car.	Travelling
เดินทางปลอดภัยนะ	Have a safe trip.	Travelling
นี่เป็นครั้งแรกที่ฉันมาภูเก็ต	This is the first time I've been to Phuket.	Travelling
ฉันอยู่เมืองไทยมาสองเดือนแล้ว	I've been in Thailand for two months.	Travelling
ฉันจะอยู่กรุงเทพอีกสามอาทิตย์	I'll be in Bangkok for three more weeks.	Travelling
ขอให้เที่ยวสนุกนะ	Have fun!	Travelling
ขอบคุณที่พามาที่นี่นะ	Thanks for taking me here.	Travelling
จองไว้สองคืน	I've booked a room for 2 nights.	Hotel
มีห้องว่างไหม	Do you have a room available?	Hotel
ขอจองหนึ่งคืน	I'd like to book for one night.	Hotel
ขอเปลี่ยนห้องได้ไหม	Can I change rooms?	Hotel
บันไดไปทางไหน	How do I get to the stairs?	Hotel
ขึ้นลิฟท์ตรงไหน	Where do I get on the elevator?	Hotel
อาหารเช้ากี่โมงถึงกี่โมง	From what time to what time do you serve breakfast?	Hotel
สระว่ายน้ำอยู่ไหน	Where's the swimming pool?	Hotel
ขอสบู่เพิ่มหนึ่งขวด	Can I have one more bottle of shower gel?	Hotel
ขอกระดาษทิชชู่สองม้วน	Can I have two rolls of toilet paper?	Hotel
ขอผ้าเช็ดตัวหนึ่งผืน	Can I have one bath towel?	Hotel
แอร์ไม่เย็น	The air-conditioner is not working.	Hotel

Table 2 (Continued)

	ไทย	English	Category
	น้ำไม่ไหล	The water is not running.	Hotel
	มีตู้เย็นไหม	Is there a refrigerator?	Hotel
	มีน้ำร้อนใช้ไหม	There's hot water, right?	Hotel
	จ่ายตอนไหน	When do I pay?	Hotel
	เช็คเอาท์กี่โมง	What time is check out?	Hotel
	มีบริการจอดรถไหม	Is there valet parking?	Hotel
	ขอคีย์การ์ดใบใหม่ได้ไหม	Can I get a new key card?	Hotel
	ห้องฉันอยู่ชั้นไหน	What floor is my room on?	Hotel
	ที่นี่มี Wi-fi ไหม	Is there Wi-fi here?	Hotel
	ต่อ Wi-fi ยังไง	How do I connect to the Wi-fi?	Hotel
	วันนี้อากาศร้อนจัง	It's so hot today.	Weather
	ตอนนี้ฝนตกหนักมาก	It's raining very heavily now.	Weather
	เชียงใหม่อากาศดีมาก	Chiang Mai's weather is really nice.	Weather
	เมื่อวานลมแรงมาก	It was very windy yesterday.	Weather
	ตอนนี้ที่แคนาดาหิมะตก	It's snowing now in Canada.	Weather
	ตอนนี้ที่เกาหลีค่อนข้างหนาว	It's rather cold now in Korea.	Weather
	ตอนนี้ที่อิตาลีฤดูอะไร	What season is it now in Italy?	Weather
	ตอนนี้ที่เมืองไทยฤดูฝน	Now, it's the rainy reason in Thailand.	Weather
	ฉันจะไปภาคใต้ช่วงฤดูร้อน	I'm going to the South (of Thailand) in summer.	Weather
	ฤดูหนาวที่เมืองไทยไม่หนาวเลย	It's not cold at all during winter in Thailand.	Weather
	ประเทศฉันไม่มีฤดูใบไม้ผลิ	My country does not have a spring season.	Weather
	ฤดูใบไม้ร่วงที่ญี่ปุ่นสวยมาก	Autumn in Japan is very beautiful.	Weather
	หิวจัง	I'm hungry.	Restaurant
	หิวน้ำจัง	I'm thirsty.	Restaurant
	ฉันอิ่มแล้ว	I'm full.	Restaurant
	สองคน	Two people.	Restaurant
	นั่งตรงนี้ได้ไหม	Can we sit here?	Restaurant
	ขอเมนูหน่อย	Can we have the menu?	Restaurant
	มีอะไรแนะนำบ้าง	What do you recommend?	Restaurant
	ที่นี่อะไรอร่อย	What's good here?	Restaurant
	มีเมนูมังสวิรัติไหม	Do you have a vegetarian menu?	Restaurant

Table 2 (Continued)

ฉันกินเจ	I'm vegan.	Restaurant
มีส่วนผสมของนมวัวไหม	Does it contain dairy?	Restaurant
ฉันแพ้ถั่วลิสง	I'm allergic to peanuts.	Restaurant
ขอสั่งอาหารหน่อย	I'm ready to order.	Restaurant
ขอผัดไทยหนึ่งจาน	I'll have one order of Pad Thai.	Restaurant
ขอข้าวเปล่าสองจาน	I'll have two orders of rice.	Restaurant
ขอข้าวผัดหมูกับต้มยำกุ้ง	I'll have pork fried rice and shrimp hot and sour soup.	Restaurant
ขอกะเพราไก่ไข่ดาวที่นึง	I'll have one order of chicken basil leaf stir-fry with a fried egg.	Restaurant
มีน้ำอะไรบ้าง	What kind of drinks do you have?	Restaurant
ขอน้ำเปล่าหนึ่งขวด น้ำแข็งสองแก้ว	I'll have one bottle of water and two glasses of ice.	Restaurant
ขอโค้กสี่ขวด	I'll have four bottles of Coke.	Restaurant
ไม่เอาน้ำแข็ง	No ice.	Restaurant
ขอพริกเยอะๆนะ	With lots of chilies.	Restaurant
ไม่ใส่พริกนะ	No chilies.	Restaurant
ขอไม่เผ็ดนะ	Make it not spicy.	Restaurant
ขอเผ็ดๆนะ	Make it very spicy.	Restaurant
เอาไม่เผ็ดมากนะ	I want it not very spicy.	Restaurant
ขอเครื่องปรุงหน่อย	Can I have condiments?	Restaurant
ขอช้อนส้อมหน่อย	Can I have a spoon and a fork?	Restaurant
มีตะเกียบไหม	Do you have chopsticks?	Restaurant
ขอจานเปล่าหนึ่งใบ	Can I have one empty plate?	Restaurant
ขอแก้วเปล่าสองใบ	Can I have two empty glasses?	Restaurant
ขอทิชชู่หน่อย	Can I have some napkins?	Restaurant
ขอกลับบ้านนะ	Can I have it to go?	Restaurant
ช่วยห่อกลับบ้านหน่อย	Can you put it in a to-go box?	Restaurant
อร่อยมาก	It's very delicious.	Restaurant
ไม่อร่อยเลย	It's disgusting.	Restaurant
ที่สั่งไปยังไม่ได้เลย	I haven't gotten what I ordered yet.	Restaurant
คิดเงินด้วย	Can I get the check?	Restaurant
รับบัตรเครดิตไหม	Do you take credit cards?	Restaurant
มีไซส์ใหญ่กว่านี้ไหม	Is there a larger size?	Shopping

Table 2 (Continued)

มีสีอื่นไหม	Is there a different color?	Shopping
ขอซื้ออันนี้	I'll have this one.	Shopping
แบบนี้เท่าไหร่	How much is this style?	Shopping
ขอลองได้ไหม	Can I try it on?	Shopping
มีห้องลองไหม	Is there a fitting room?	Shopping
อันนี้ราคาเท่าไหร่	How much is this?	Shopping
อันนั้นกี่บาท	How much is that?	Shopping
ลดได้ไหม	Can you give me a discount?	Shopping
มีถูกกว่านี้ไหม	Is there anything cheaper?	Shopping
จ่ายเงินตรงไหน	Where do I pay?	Shopping
เป็นอะไรเหรอ	What's the matter?	Hospital
เป็นอะไรรึเปล่า	Are you OK?	Hospital
ฉันไม่ค่อยสบาย	I don't feel very well.	Hospital
ฉันรู้สึกไม่ค่อยดี	I feel a little unwell.	Hospital
ฉันปวดหัวมากเลย	I have a bad headache.	Hospital
สงสัยฉันจะเป็นหวัด	I might be having a cold.	Hospital
ฉันเป็นไข้	I have a fever.	Hospital
เจ็บตรงไหน	Where does it hurt? (Where do you feel pain?)	Hospital
หายรึยัง	Do you feel OK now? (Have you recovered?)	Hospital
หายเร็วๆนะ	Get well soon.	Hospital
ดูแลตัวเองดีๆนะ	Take good care of yourself.	Hospital
ไปหาหมอเถอะ	Go see the doctor.	Hospital
หมอว่ายังไงบ้าง	What did the doctor say?	Hospital
กินยารึยัง	Did you take the pills?	Hospital
มีพลาสเตอร์ไหม	Do you have a bandage?	Hospital
แถวนี้มีร้านขายยาไหม	Is there a pharmacy nearby?	Hospital
ช่วยด้วย	Help!	Hospital
เรียกรถพยาบาลให้หน่อย	Call an ambulance, please.	Hospital
ไปโรงพยาบาลที่ใกล้ที่สุด	To the nearest hospital.	Hospital
ฉันมีประกันสุขภาพ	I have health insurance.	Hospital
นั่นอะไร	What is that?	Miscellaneous

Table 2 (Continued)

	นี่ของใคร	Whose is this?	Miscellaneous
	ใช่	Yes / That's correct.	Miscellaneous
	ไม่ใช่	No / That's not correct.	Miscellaneous
	ฉันง่วงแล้ว	I'm tired.	Miscellaneous
	ฉันอยากไปห้องน้ำ	I need to go to the bathroom.	Miscellaneous
	อาบน้ำรึยัง	Have you taken a shower?	Miscellaneous
	เหนื่อยไหม	Are you tired?	Miscellaneous
	ไปนอนก่อนนะ	I'm going to bed.	Miscellaneous
	เดี๋ยวก่อน	Wait. / Hold on.	Miscellaneous
	รอแป๊บนึง	Wait a moment.	Miscellaneous
	เดี๋ยวมานะ	I'll be back.	Miscellaneous
	จริงเหรอ	Really?	Miscellaneous
	อย่าลืมนะ	Don't forget.	Miscellaneous
	พูดเล่น	I'm just kidding.	Miscellaneous
	บอกแล้ว	I told you.	Miscellaneous
	เห็นไหม	See? / Do you see (me/it)?	Miscellaneous
	ยังไม่รู้เลย	I don't know yet.	Miscellaneous
	ฉันก็เหมือนกัน	Me too. / Same.	Miscellaneous
	แน่ใจเหรอ	Are you sure?	Miscellaneous
	ไม่แน่ใจ	I'm not sure.	Miscellaneous
	ได้เลย	Of course. / Sure.	Miscellaneous
	ไม่มีทาง	No way.	Miscellaneous
	ไม่ไหวแล้ว	I can't handle it anymore.	Miscellaneous
	เสร็จรึยัง	Are you done?	Miscellaneous
	เสร็จแล้ว	I'm done.	Miscellaneous
	เร็วๆ หน่อย	Hurry up.	Miscellaneous
	เร็วๆ นะ	Be quick, OK?	Miscellaneous
	สู้ๆ นะ	Hang in there.	Miscellaneous
	โชคดีนะ	Good luck.	Miscellaneous
	ดูนี่สิ	Check this out!	Miscellaneous
	แล้วแต่คุณ	Up to you.	Miscellaneous

Table 2 (Continued)

ช่วยไหม	Do you need my help?	Miscellaneous
แน่นอน	Of course. Certain	Miscellaneous
ช่างเถอะ	Never mind. / Forget it. / Whatever.	Miscellaneous
เป็นไปไม่ได้	There's no way. / That's impossible.	Miscellaneous
พอ	Enough. / Stop. / Now.	Miscellaneous
ไม่ใช่อย่างงั้น	It's not like that.	Miscellaneous
คงงั้นมั้ง	I guess so.	Miscellaneous
ทำยังไงดี	What should I do?	Miscellaneous
ไม่ต้องเกรงใจ	Don't be shy. / It's OK. / Don't worry.	Miscellaneous
เฉยๆ	I have no opinion. / It doesn't matter. / so so	Miscellaneous
ใจเย็นๆ	Calm down.	Miscellaneous
เกิดอะไรขึ้น	What happened?	Miscellaneous
จริงๆ แล้ว	Actually…	Miscellaneous
ถ้างั้น	In that case, so...	Miscellaneous
ถ้าไม่งั้น	If not, otherwise	Miscellaneous

According to the data from Table 2, among the 330 Thai sentences, the distribution across different categories is as follows: 39 sentences for greetings & introducing yourself, 11 for family, 15 for communication, 17 for making friends, 22 for expressing feelings, 8 for memory, 18 for transportation, 34 for sightseeing, 15 for travelling, 22 for hotel, 12 for weather, 39 for restaurant, 11 for shopping, 20 for hospital, and 47 for miscellaneous.

Among the 223 sentences that overlap with keywords, the distribution is: 35 for greetings & introducing yourself, 11 for family, 13 for communication, 15 for making friends, 16 for expressing feelings, 8 for memory, 6 for transportation, 20 for sightseeing, 15 for travel, 13 for hotel, 9 for weather, 24 for restaurant, 1 for shopping, 13 for hospital, and 24 for miscellaneous.

Step 1.2: Questionnaire survey from 100 Chinese people who live in Thailand

This step is to investigate the target group's needs for Thai language learning, and to further refine the 209 sentences summarized from Step 1.1. According to user

needs, some of the 209 sentences are selected and put into the design of the board game.

Research Results (questions 1 to 22 are expressed as Q1 to Q22):

Table 3 Age

Option	Number of selections	Percentages	Rank
Under 20 years old	0	0%	4
20-30 years old	36	36%	2
30-40 years old	39	39%	1
Over 40 years old	25	25%	3

According to Question 1, in response to age, the age range of 30-40 years old is the largest with 39%, followed by the age range of 20-30 years old with 36%, and the age range of over 40 years old with 25%.

Table 4 Number of family members

Option	Number of selections	Percentages	Rank
1 person	0	0%	4
2 people	4	4%	3
3 people	75	75%	1
4 people	17	17%	2
5 or more people	4	4%	3

According to Question 2, 96% of the respondents have three or more family members, with three-member households being the most common, accounting for 75% of all respondents.

Table 5 Your job is?

Option	Number of selections	Percentages	Rank
Unemployed/Housewife	26	26%	2
Part-time job	14	14%	3
Individual merchants	6	6%	4
Office workers	54	54%	1
Others (please specify)	0	0%	5

According to Question 3, 54% of the respondents are Individual merchants, which is the highest proportion, exceeding half of the total. This is followed by

unemployed individuals/homemakers at 26%, part-time workers at 14%, and Individual merchants individuals at 6%.

Table 6 Your Thai language level?

Option	Number of selections	Percentages	Rank
No basis	0	0%	0
Can use some words	57	57%	1
Can use some sentences	31	31%	2
Very fluent	12	12%	3

According to Question 4, the highest proportion of respondents—57%—chose the option "Can use some words," while only 31% reported "Can use some sentences". This indicates that more than half of the respondents have a basic understanding of Thai, but still face challenges when it comes to using complete sentences.

Table 7 What channels do you mainly use to learn Thai? (Multiple choice)

Option	Number of selections	Percentages	Rank
School/language institution	71	71%	2
Online courses or apps	89	89%	1
Self-study (such as books, videos)	45	45%	4
Communicate with local people	62	62%	3
Others (please specify)	0	0%	5

According to Question 5, among all respondents, the most selected option was "Online courses or apps," accounting for 89%. This was followed by "School/language institution" at 71%, and "Communicate with local people" at 62%. The least chosen option was "Self-study (such as books, videos)," making up only 45% of the responses.

Table 8 If you use board games to learn Thai, how much time do you and your children want to srpend on it (each time)

Option	Number of selections	Percentages	Rank
Less than 0.5 hours	8	8%	4
0.5-1 hour (Includes one hour)	33	33%	2

Table 8 (Continued)

1 hour - 2 hours	39	39%	1
More than 2 hours	20	20%	3

According to Question 6, 39% of the respondents chose "1 hour - 2 hours", 33% selected "0.5-1 hour (Includes one hour)", and 20% opted for "More than 2 hours". The least chosen option was "Less than 0.5 hours", accounting for only 8% of the responses.

Table 9 Please rate the importance of the following scenarios according to your needs

Option	Average score (out of 5)	Rank
Greetings & introducing yourself	3.62	6
Family (eg: How many brothers and sisters do you have? / I am an only child)	3.56	10
Communication (eg: Does anyone speak English? / How do you say this in Thai?)	3.54	11
Making friends (eg: Are you free? / What's your Line number?)	3.61	7
Hobbies & Feelings (eg: I like cooking. / Congratulations)	3.64	5
Memory (eg: I don't know./I don't remember.)	3.48	14
Transportation	3.58	8
Sightseeing (eg: Where can I buy the ticket? / Can you take a photo for us?)	3.67	3
Travelling (eg: Have a safe journey. / I am going to take a train.)	3.66	4
Hotel	3.57	9
Weather	3.75	1
Restaurant	3.68	2
Shopping	3.49	13
Hospital (eg: I have a fever. / Have you taken medicine?)	3.51	12

According to Question 7, the target group considers the following categories to be relatively important: "Weather," "Restaurant," "Sightseeing," "Travelling," "Hobbies & Feelings," and "Greetings & Introducing Yourself." The scores for these six categories are all above 3.615, which is the median score across all 14 categories.

Table 10 How much Thai cultural elements do you want to be included in the board game? (Multiple choice)

Option	Number of selections	Percentages	Rank
Thai food	88	88%	1
Attractions	68	68%	2
Traditional costumes	45	45%	4
Thai festivals	30	30%	5
Honorific usage/etiquette	54	54%	3
Masterpiece	25	25%	6
Others (please specify)	2	2%	7

According to Question 8， the options selected by more than half of the respondents include "Thai food", "Attractions", and "Honorific usage/etiquette". The number of respondents choosing these three options was 88, 68, and 54, respectively, ranking them first, second, and third among all options.

Table 11 How complex do you want the rules of the board game to be?

Option	Number of selections	Percentages	Rank
Very simple (Haven't played)	28	28%	2
Moderate (Played, suitable for parents and children to participate together)	53	53%	1
More complex (Played, and also want to play with colleagues/friends)	19	19%	3
Other (please specify)	0	0%	4

According to Question 9, More than half of the respondents selected Moderate "(Played, suitable for parents and children to participate together)", accounting for 53% of the total responses.

Table 12 What learning goals do you hope to help yourselves or your child achieve through this board game? (Multiple choice)

Option	Number of selections	Percentages	Rank
Understand basic Thai vocabulary	90	90%	1

Table 12 (Continued)

Learn Thai sentences	64	64%	2
Understand Thai culture	36	36%	4
Enhance parent-child interaction	57	57%	3
Others (please specify)	0	0%	5

According to Question 10, regarding the goals of playing board games, the respondents considered "Understand basic Thai vocabulary" to be the most important, followed by "Learn Thai sentences" (64%), "Enhance parent-child interaction" (57%), and " Understand Thai culture " (36%). Therefore, in addition to language learning, the respondents still attach great importance to the function of board games in enhancing parent-child interaction.

Table 13 Which color combination do you think is suitable for Thai language teaching board games that designed for parents and children?
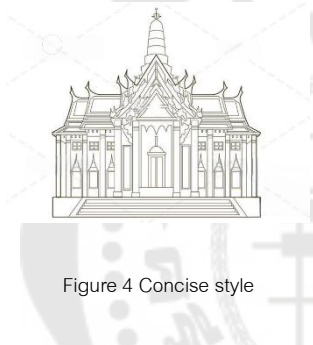
Option	Number of selections	Percentages	Rank
	7	7%	6
	13	13%	5
	16	16%	4
	19	19%	3
	21	21%	2
	24	24%	1

According to Question 11, among the six color combinations summarized from six outstanding products in the same category, the combination of "orange, purple, white, and blue" was the most popular, favored by 24% of respondents. Additionally, the combination of "red, purple, white, and blue" was also quite popular, chosen by 21% of respondents. This indicates that most respondents prefer color schemes dominated by "purple, white, and blue", with red or orange as complementary colors.

Table 14 What style do you think this board game should be?
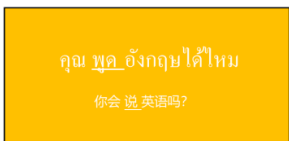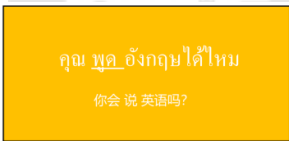
Option	Number of selections	Percentages	Rank

Table 14 (Continued)

Hand-painted style Figure 3 Hand-painted style Source: https://images.app.goo.gl/DkoYQZrNis9cbqG16	48	48%	1
Concise style Figure 4 Concise style Source: https://vcg.jsbqfw.com/creative/search?phrase=%E5%9B%BD %E9%99%85%E5%BB%BA%E7%AD%91%E5%B1%95&graphi calStyle=2	34	34%	2
Realistic style Figure 5 Realistic style Source: https://images.app.goo.gl/8kGVycPwmuGzVNY59l	18	18%	3

According to Question 12, the highest proportion of respondents—48%—preferred the "Hand-painted style", indicating stronger approval for the use of hand-painted illustrations in family board games.

Table 15 Which of the following text layouts do you think is more suitable for learning Thai?
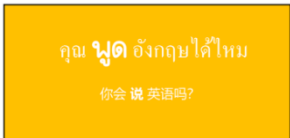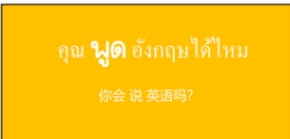
Option	Number of selections	Percentages	Rank
Underline both Thai and Chinese คุณ พูด อังกฤษได้ไหม 你会 说 英语吗? Figure 6 underline both Thai and Chinese Zhang Yirong (2025)	69	69%	1
Underline just Thai คุณ พูด อังกฤษได้ไหม 你会 说 英语吗? Figure 7 Underline just Thai Zhang Yirong (2025)	31	31%	2

According to Question 13, a larger proportion of respondents—69%—chose the option "Underline both Thai and Chinese".

Table 16 Which of the following text layouts do you think is more suitable for learning Thai?

Option	Number of selections	Percentages	Rank

Table 16 (Continued)

Option	Number of selections	Percentages	Rank
Change the font for Thai and Chinese คุณ **พูด** อังกฤษได้ไหม 你会 **说** 英语吗? Figure 8 Change the font for Thai and Chinese Zhang Yirong (2025)	47	47%	2
Change the font for just Thai คุณ **พูด** อังกฤษได้ไหม 你会 说 英语吗? Figure 9 Change the font for just Thai Zhang Yirong (2025)	53	53%	1

According to Question 14, the number of respondents who chose the option "Change the font for just Thai" was slightly higher.

Table 17 Which of the following text layouts do you think is more suitable for learning Thai?

Option	Number of selections	Percentages	Rank
Change the color of Thai and Chinese คุณ **พูด** อังกฤษได้ไหม 你会 说 英语吗? Figure 10 Change the color of Thai and Chinese Zhang Yirong (2025)	50	50%	1

Table 17 (Continued)

Just change the color of Thai คุณ **พูด** อังกฤษได้ไหม 你会 说 英语吗? Figure 11 Just change the color of Thai Zhang Yirong (2025)	50	50%	1

According to Question 15, the number of respondents who chose "Change the color of Thai and Chinese" was equal to those who selected "Just change the color of Thai".

Table 18 Where do you usually play board games? (Multiple choice)

Option	Number of selections	Percentages	Rank
Family gatherings	56	56%	3
Friend gatherings	59	59%	2
School or educational institutions	62	62%	1
Traveling	39	39%	4
Others (please specify)	2	2%	5

According to Question 16, In the context of playing board games, the options "School or educational institutions", "Friend gatherings", and "Family gatherings" were each selected by more than half of the respondents, with 62%, 59%, and 52% of respondents choosing them, respectively.

Table 19 What channel did you use to buy board games or similar products last time?

Option	Number of selections	Percentages	Rank
E-commerce platforms (such as Taobao, Xiaohongshu)	5	5%	5
Bookstores	24	24%	2
Toy stores	18	18%	3
Shopping malls	36	36%	1

Table 19 (Continued)

Educational institutions or schools	17	17%	4
Others (please specify)	0	0%	6

According to Question 17, offline channels are the primary way most respondents purchase board games or similar products. The breakdown is as follows: Shopping malls accounting for 36%, Bookstores for 24%, Toy stores for 18%, and Educational institutions or schools for 17%. In contrast, the online channel E-commerce platforms (such as Taobao, Xiaohongshu) has the lowest proportion, at only 5%.

Table 20 What is the price range you are willing to pay for such a board game?

Option	Number of selections	Percentages	Rank
Less than 50 yuan	25	25%	2
50-100 (includes 100 yuan)	46	46%	1
100-200 yuan (includes 200 yuan)	22	22%	3
More than 200 yuan	7	7%	4

According to Question 18, 46% of the respondents find the price range "50-100 (includes 100 yuan)" acceptable.

Table 21 Which way do you prefer to learn about new product information? (Multiple choice)

Option	Number of selections	Percentages	Rank
Social media advertising	50	50%	3
Recommendations from friends or family	56	56%	1
Offline events or exhibitions	54	54%	2
Others (please specify)	0	0%	4

According to Question 19, the option "Recommendations from friends or family" was chosen by 56% of respondents, "Offline events or exhibitions" by 54%, and "Social media advertising" by 50%.

Table 22 Do you want a mobile app to assist learning with the board game?

Option	Number of selections	Percentages	Rank
Yes	84	84%	1
No	16	16%	2

According to Question 20, the majority of respondents believe that board games should be supported by an app for learning purposes, with 84% holding this view.

Table 23 What additional resources do you want the board game to include? (Multiple choice)

Option	Number of selections	Percentages	Rank
Board game itself is enough	0	0%	4
Voice recognition function	46	46%	3
Online courses	78	78%	1
Cultural knowledge expansion	60	60%	2
Others (please specify)	0	0%	4

According to Question 21, all respondents agreed that board games should provide additional resources. Among them, 78% believe that online instructional videos should be offered, 60% think cultural knowledge expansion should be included, and 46% suggest providing audio-assisted learning resources.

Table 24 Are you willing to pay more for higher quality materials (such as wood)?

Option	Number of selections	Percentages	Rank
Yes	74	74%	1
No	26	26%	1

According to Question 21, A larger proportion of respondents—74%—agree to pay extra for board games made with higher-quality materials.

According to the survey results from 22 questions, the majority of respondents were aged 30 or above, coming from three-member families and working as office employees with basic Thai language skills, primarily learning through online courses,

apps and offline educational institutions. Regarding the Thai learning board game, most participants preferred playing for 30 minutes to 2 hours, with over half considering six key scenarios most essential for learning: weather, dining, sightseeing, traveling, expressing feelings, and greetings/self-introductions. The survey revealed strong interest in Thai culture - 88% wanted to learn about local cuisine, 68% about tourist attractions, and 54% about etiquette. Respondents generally preferred moderate game difficulty that teaches basic vocabulary while incorporating cultural elements. In terms of design, the favored color scheme combined white, purple, orange and blue, with specific text formatting preferences: Thai text highlighted through both underlines and font variations while Chinese translations used underlines only, along with a preferred hand-drawn illustration style. Usage patterns showed the board game would mainly be used in schools and educational institutions. Purchasing behavior indicated most respondents previously bought similar products through offline channels and typically learned about new products through family and friends. The majority found the ¥50-100 price range appropriate, with 74% willing to pay more for superior quality materials. Additional desired features included a supporting app and more diverse learning materials to complement the board game experience.

Step 1.3: Interview three Thai language teaching experts who have experience in teaching Thai to Chinese people for at least 2 years

Research Results:

Table 25 Interviewee code

Interview code	A	B	C
Name	Pat	Wipawee Khorsawat	Supachai Wirasa
Age	44	31	35
Occupation	University Professor	Thai teaching blogger	Institution Thai teacher
Teaching experience	Over 10 years	3 years	8 years
Interview method	Online	Online	Online

The interview content is detailed in the table blew (questions 1 to 12 are expressed as Q1 to Q12):

Table 26 Where are you teaching Thai now? Through what channels? (For example, offline classes/online classes?)

A	Currently, I teach Thai to Chinese learners online. In the past, I also taught Thai in a classroom setting.
B	Teach Thai online, mainly using Tencent Meeting.
C	I primarily teach Thai language courses on both online platforms and at offline training institutions. For online teaching, I have students from many different countries. As for offline teaching, I have taught students in Guangzhou, Shenzhen, and Zhuhai in China.

According to Q1, the teaching methods of the experts interviewed are both online and offline.

Table 27 What groups have you taught? Have you taught Chinese people? Have you taught Chinese children? Or Chinese office workers?

A	I mainly teach adult Chinese learners and working professionals, focusing on one-on-one lessons.
B	The individuals I have taught are all Chinese, ranging from a 12-year-old Chinese child to Chinese adults around 60 years old. The majority of those I have taught are Chinese working professionals and freelancers.
C	The students I have taught include Chinese individuals, Thai locals who want to learn Chinese, and students from other countries interested in Thai. Among my Chinese students, there are both children and adult working professionals.

According to Q2, two experts have experience teaching children and adults.

Table 28 What problems do you think Chinese people usually encounter when learning Thai? How do you usually help them solve these problems? Is there anything that you think should be paid special attention to when teaching Chinese people.

A	One common challenge Chinese learners face when learning Thai is spelling. Thai has a complex writing system that often confuses learners. For example, formal language, consonant clusters, homophones, words borrowed from Pali and Sanskrit, and irregular spellings can be tricky. To help with this, I encourage learners to practice writing from dictation, reading aloud, creating sentences, and translating meanings. This helps deepen their understanding of the words and their usage. Another key focus when teaching Thai to Chinese learners is pronunciation. It's important for teachers to pronounce words clearly and naturally.

Table 28 (Continued)

B	The two main issues are pronunciation and vocabulary usage. To address their pronunciation difficulties, I provide Pinyin annotations next to the vocabulary to help them pronounce the words correctly. For vocabulary usage, I explain the etymology and roots of the words and provide examples to demonstrate how the words are used in real-life communication or how to construct sentences with them. Regarding pronunciation issues, it is important to pay attention to **long and short vowel sounds, as the length of a vowel can sometimes lead to misunderstandings or confusion with other words. Additionally, special attention should be given to the consonant "ด", as it often poses challenges for learners.
C	When Chinese learners study Thai, they often encounter pronunciation challenges due to the unique vowels and consonants in Thai, which differ significantly from Chinese pronunciation. This can lead to inaccuracies in their pronunciation. To address this, I typically use audio and video materials to allow students to repeatedly listen to standard pronunciations and practice through imitation to correct their mistakes. Additionally, I employ pronunciation comparison charts to help students visually understand the differences between Thai and Chinese pronunciation. When teaching Chinese learners, I believe it is crucial to fully consider the linguistic differences between Chinese and Thai to avoid the negative transfer of their native language. This is key to helping them overcome pronunciation difficulties effectively.

According to Q3, the main problem encountered by Chinese people when learning Thai is pronunciation. The methods adopted by the experts include: multiple practice with video and audio, explaining the root of the word, and making sentences according to the scene to deepen the impression, etc.

Table 29 What teaching aids do you use in your teaching? (Such as pictures, videos, audio ⋯) Which teaching aid do they usually prefer? Do you use board games to assist teaching? Or do you teach through games? If so, how much time do games take up in your class?

A	I often use gestures, videos, and pictures to help teach Thai. I also think role-playing activities are quite effective for Chinese learners. In these activities, I give students key words to create dialogues, then act them out. Other students can help analyze whether the meaning, word usage, and pronunciation are correct. I've never used board games for teaching Thai before.
B	I use images the most and occasionally incorporate videos. My students prefer images, and I have not yet used game-based teaching in my classes.

Table 29 (Continued)

C	In my teaching, I do use these tools because images are fundamental in helping students visually understand the meanings of vocabulary. For example, when teaching words related to fruits and animals, showing corresponding pictures helps students memorize quickly. Videos are used to immerse students in real-life Thai communication scenarios, which aids their grammar and memory. Audio is primarily used for pronunciation practice, allowing students to hear standard Thai pronunciation. Most of my students are particularly interested in video-based teaching, as videos provide rich visual and auditory information, making them more engaging. I have also used board game cards in teaching, and the response has been very positive. Additionally, I have designed classroom games to assist teaching, such as a Thai vocabulary chain game, where students take turns using the vocabulary they've learned, and the one who fails performs a small activity. During my lessons, games typically occupy about 10%-20% of the class time. I believe this is sufficient to create a lively classroom atmosphere and help students consolidate their knowledge in a relaxed and enjoyable environment.

According to Q4, the experts rarely or never use games to assist teaching, and the teaching materials are mainly pictures, videos and audio.

Table 30 When designing Thai board games for Chinese families, which words and sentences in which scenarios do you think are more practical for Chinese people?

A	I think nouns, pronouns, and verbs related to family can be applied well in board games. For example, when teaching the topic "My Family," teachers can introduce words like father, mother, child, love, I, my, family, home, have, and people. Start with simple sentences using these words, like "I love my father," "The child loves their mother," or "My family has five members." The idea is to connect single-syllable words into phrases, then build those into full sentences. Eventually, those sentences can be linked together to form a story.
B	Expressing their needs.
C	I believe that basic expressions for daily greetings and self-introductions are the most practical. Whether hosting Thai friends at home or traveling and encountering Thai people, these expressions can be used immediately. Additionally, time-related vocabulary is frequently used in many scenarios and is highly useful.

According to Q5, the experts mentioned that Chinese people want to learn in real life are about family, self-introduction, and expressing demands.

Table 31 Do you think it is possible to add Thai cultural elements to board games? For example, Thai food, attractions, etc. What do you think can be added?

A	I believe board games should also include elements of Thai culture since language and culture go hand in hand. For example, if you're teaching Khun Chang Khun Phaen (a famous Thai literary work), it would be great to include aspects of Thai beliefs, such as kumarn thong (spiritual child statues) or amulets. If teaching Phra Aphai Mani, elements of Buddhism and Thai traditions could be incorporated. Including Thai culture and beliefs makes the content more engaging and enjoyable for learners.

Table 31 (Continued)

B	Thai cuisine, festivals, politeness (such as greetings, responses, and farewells), and etiquette.
	I think incorporating Thai food elements into cards or dice could be a great idea. For example, cards could feature images of Thai dishes with their names and descriptions, while dice could have food-related instructions, such as naming a Thai fruit or mimicking the action of eating Pad Thai.
C	Additionally, Thai landmarks could be integrated into the game's map or scenarios. For instance, designing a map that includes famous sites like the Grand Palace in Bangkok or the Old City of Chiang Mai, along with related challenges and questions, such as describing the main architectural features of the Grand Palace in Thai. This would help students familiarize themselves with Thailand's geography and iconic landmarks.

According to Q6, the experts believe that cultural elements such as Thai classics, etiquette, food and attractions can be added to board games.

Table 32 If there is such a board game, what do you think I should do to let consumers know about it and become interested in buying it? Which channels should I use to sell it?

A	To market a board game for business purposes, various platforms can be used, such as Facebook, YouTube, Xiaohongshu, WeChat, TikTok, and Weibo.
	First, create videos to introduce the product.
	Second, provide free samples to other influencers on TikTok for dropshipping.
B	Third, directly collaborate with relevant influencers, such as Thai language teachers, Chinese parents accompanying their children studying abroad, or educational toy stores.
	The product can be sold through TikTok, Facebook, and YouTube.
	I believe promotion can be done through multiple channels.
	Online: Utilize popular Chinese social media platforms such as WeChat Official Accounts, Douyin (TikTok), and Xiaohongshu (Little Red Book) to release introduction videos, gameplay demonstrations, and user reviews of the board
C	game. Additionally, collaborate with Thai language learning bloggers and educational influencers to promote the product.
	Offline: Participate in various education fairs and cultural events, setting up product display booths to allow consumers to experience the fun of the board game firsthand.

According to Q7, the experts generally mentioned online promotion, combining video introduction to promote board games.

Table 33 If I want to sell it to schools/institutions, what aspects of the board game do you think they will value more?

| A | Board games sold to educational institutions should be tested and proven effective over time. The visuals and text should be engaging for users, and the content should be diverse and up-to-date. |

Table 33 (Continued)

B	In short, they prefer topics related to "everyday life usage" and "festivals and culture." However, since the focus is on schools and institutions, it is essential to first understand the specific needs of each school or institution, as students in different grades may require different tools. Board games should also align with the teaching materials they use.
C	If targeting schools or institutions, I believe they would prioritize the educational value, safety, and quality of the board game.

According to Q8, the experts believe that if teaching institutions want to introduce board games for teaching, they will pay more attention to whether the board games meet their teaching objectives, whether the teaching content is novel, and the safety of the products.

Table 34 How much do you think the learners are willing to spend on board games to aid their learning?

A	I'm not sure about this since I don't know the market prices for board games and have no pior experience using board games to teach Thai to Chinese learners.
B	500-1500 baht per set.
C	The price range would likely be between 50-200 yuan. However, if the board game includes additional expansion content, complementary learning materials, or unique designs, the price could vary accordingly.

According to Q9, the experts did not reach a consensus, and believed that the range from 50 to 300 RMB was acceptable.

Table 35 How do you combine teaching Thai and introducing Thai culture in your teaching process?

A	My teaching method involves gathering important keywords and connecting them into a story related to Thai culture. For example, topics like pha khao ma (traditional Thai cloth), garlands, amulets, or spirit houses. I collect around 10 culturally relevant nouns, use them to create simple sentences, and then connect those sentences into a story.
B	When teaching culture-related vocabulary or explaining word roots, I also share the related cultural background, the origin of the words, or relevant knowledge, pairing the vocabulary with stories to enhance understanding.

Table 35 (Continued)

C	When teaching Thai vocabulary, I introduce relevant Thai cultural background. For example, when teaching the word for durian, I explain its status in Thailand, as it is widely known as the "King of Fruits" in the country. I also share how Thais love durian and their eating habits related to it. When teaching Thai honorifics, I provide examples of Thai cultural customs, explaining that Thailand is a nation that values etiquette. I discuss the rules and importance of using honorifics in different contexts and among people of different social statuses. Through this approach, students not only learn Thai but also gain a deeper understanding of Thai culture. This helps enhance their interest and motivation in learning the language.

According to Q10, the experts thought that it could be formed by forming sentences with words and then forming a story related to Thai culture, or extending from a word to Thai culture.

Table 36 Do you have any suggestions to make board game teaching more interesting?

A	I don't have any specific recommendations.
B	The images need to be visually appealing, as pictures are the most effective in capturing learners' interest. The game interface should follow the concept of "simple and easy to understand." Avoid cluttering the screen with too many images or letters, as this helps reduce distractions for students and improves their memory retention.
C	To make board game teaching more engaging, I think increasing interactivity is key. Designing game segments that involve multiplayer cooperation or competition can encourage more communication and interaction among participants. Additionally, incorporating role-playing elements could be very effective. For example, in a board game about Thai traditional dance, players could learn simple Thai dance moves through card prompts. This kind of cross-cultural integration in design feels very innovative and appealing to me.

According to Q11, the experts believed that players could be attracted through exquisite illustrations, and role-playing in the game settings, or the game could set up a reward mechanism.

Table 37 Any other suggestions.

A	The most important skill when teaching Thai to Chinese learners is using the language naturally. Teachers should distinguish between formal and spoken Thai. Also, certain pronunciations don't need to be overly emphasized, such as "r" sounds or consonant clusters—most native speakers don't pronounce them that clearly in daily life. For example, with the word "มหาวิทยาลัย" (university), Thai people often don't say the full formal version in casual conversation. So, teachers should help learners understand the difference between written Thai and everyday spoken Thai.
B	As a board game, I personally believe it should include rewards and praise to encourage students and give them a sense of pride. If the feedback is positive, more challenging series could be developed, potentially leading to a second edition or an upgraded version.

Table 37 (Continued)

C	My suggestion is to fully consider the needs of users across different age groups and learning levels when designing the board game. For example, create an introductory version tailored for children and a more challenging advanced version for learners with some foundational knowledge.

According to Q11, one expert mentioned the pronunciation problem again, and the other two experts gave suggestions including increasing the application of "honorific language" and developing advanced versions.

According to the interview results, the design of board games should pay special attention to the teaching part about pronunciation, and should flexibly use video and audio to assist in the design. Experts believe that sentences about self-introduction, family-related, and expressing appeals are more necessary for Chinese people to learn. Regarding content other than language teaching, experts believe that elements of Thai culture that can be added include food, attractions, etiquette, and famous books. Regarding the design of the game, experts suggest that the illustrations should be exquisite, and the game should have a reward mechanism and be interesting enough. Regarding the marketing of board games, experts generally believe that more people can learn about this board game through online promotion through videos.

Step 2: To analyze board games
Research Results:

The researcher found the top three family board games and the top three language teaching board games based on sales rankings on Taobao, and analyzed them based on the design elements of the board games.

Table 38 Analysis of the top three family board games

Family board game	Product name	Player number	Age group	Rule	Player interaction	Game experience

				Players roll the dice and get different numbers of basic animals - rabbits according to the points. In each round, players can choose to get rabbits or synthesize new advanced animals. The player who synthesizes all animal species first wins.	Players compete with each other, trying to get more animals while also paying attention to other players' play styles.	In the game, players' mathematical calculation ability and risk investment awareness are exercised. At the same time, this is also a platform for parents to interact with their children when the player group is parent-child.
  Figure 12 Super Farmer Source: https://shop34833115.world.taobao.com/?spm=pc_detail.29232929.shop_block.dshopinfo.50aa7dd6S5OAD5	Super Farmer	2-6 person	4 years+			
  Figure 13 Rabbit trap Source: https://temi.world.tmall.com/shop/view_shop.htm?appUid=RAzN8HWJvFEg6igUZTJYktCZHa4LhkwufF9HfkbrwLgg9wvqakL&spm=a21n57.1.hoverItem.2	Rabbit trap	2 or more people	4 years+	Players roll the dice to make the "rabbit" chess piece move forward. Different traps will be encountered along the way. The chess piece may go backwards or return to the starting point. The player who reaches the end first wins.	Players compete to see who reaches the finish line first. The product has a physical chessboard, and the interaction between players includes language and actions.	The game involves a high degree of luck, and the game process is full of tension and excitement.
  Figure 14 Guess who am I Source: https://ysrwj.world.tmall.com/shop/view_shop.htm?spm=pc_detail.29232929/evo365560b447257.shop_block.dshopinfo.929e7dd6buuu5t	Guess who am I	2 people	3 years+	The two players take turns asking the character's characteristics and closing the cards that do not match the characteristics. The player who first finds the character chosen by the other player wins.	Players mainly interact through dialogue and question-answering.	During the game, players' language description ability, memory ability and observation ability are all exercised.

From these three family board games, the researcher finds that all three board games adopt a competitive game mode, but the final player will not be produced before the end of the game. The game not only tests the player's game skills but also involves some luck. Rabit trap and Guess who am I place more emphasis on physical and verbal interaction. These points can be applied to designing the interaction mode and gameplay mechanics for the board game in this study.

Table 39 Analysis of the top three language teaching board games

Language teaching board game	Product name	Player number	Age group	Goal	Rule	Components	Aesthetics
Figure 15 I win Phonics card game Source: https://60jn2ltd8feltviq389dzjyzlw86gky.world.taobao.com/shop/view_shop.htm?appUid=RAzN8HWYTRNVetnbZrD3R76FwHRx1sSQKrxtuvXNemgxdtkAhan&spm=a21n57.1.hoverItem.2	I win Phonics card game	2-8 people	3 years+	Learn how to read basic English vocabulary and use vowels.	Similar to uno	Cards, instructions, instructional videos	The cards imitate UNO and have several main colors. The word theme is black, and the vowel pronunciation letters are emphasized in red. The word cards are composed of words and patterns.
Figure 16 yaofish Word Wiz Source: https://item.taobao.com	yaofish Word Wiz	2-4 people	7 years+	Master the spelling of more words.	Chinese words are placed on the table. Players place as many letter cards in their hands as possible under the corresponding word cards. Whoever plays all the letter cards first wins.	Chinese word cards, letter cards, card bag, stand, instruction manual	The letter cards have blue letters on a white background, the word cards have different background colors depending on the category, but the word theme is all white, and the packaging and props are blue and white.

				Master basic English grammar.	Draw 8 cards from the word deck and place them on the table. Players choose cards and place them in corresponding positions (such as placing the mother card in the position of noun), discard unnecessary cards, and finally form a semantically and grammatically correct sentence and read it out, while winning these cards. After multiple rounds, whoever has the most cards wins.	Word cards, grammar templates, bells, instruction manuals	The cards have a background, the word cards have corresponding pictures and key explanations in the lower left corner, and different parts of speech have corresponding symbols, which are marked in the lower right corner of the word cards.
Figure 17 I win Hit the bill	I win Hit the bill	2-6 people	7 years+				

Figure 17 I win Hit the bill

Source: https://yaofish.world.tmall.com/shop/view_shop.htm?appUid=RAzN8HWTd5YPPhDJ8rP5R6gFWPh178dCD7ydMqVFft1o2AJ8a5Y&spm=a21n57.1.hoverItem.4

From these three language learning board games, it can be observed that all of them use high-contrast colors to highlight learning content, and different types of cards are distinguished by color. I Win Hit the Bell also incorporates symbols to represent different grammatical components. Both I Win Phonics Card Game and I Win Hit the Bell combine content with visuals. These key points can be applied to the graphic design of the board game in this study.

Step 3: Design a prototype

Research Results:

Color design: The researcher extracted six color schemes from the top three best-selling family board games and language-learning board games collected from Taobao. These color schemes were presented in the survey, and respondents were

asked to choose their favorite one. Ultimately, the combination of white, purple, blue, and orange received the highest percentage of votes.
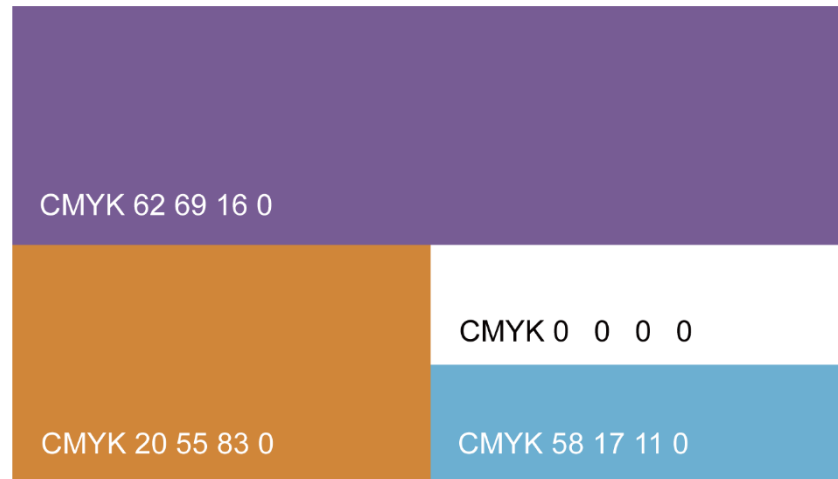

Figure 18 Color scheme

Zhang Yirong (2025)

Regarding the theme colors of the six scenes, according to color psychology, pink is suitable for the scene of "Express feelings", maroon is suitable for "Introducing Self and Greeting", yellow is suitable for the scene of "Travelling", and red is suitable for the scene of "Restaurant". According to color connections, blue or green is suitable for the scene of "Sightseeing", and blue is suitable for the scene of "Weather". Since blue is already one of the main colors of the board game, in order to avoid repetition, turquoise is chosen for the scene of "Sightseeing", and dark blue is used for the scene of "Weather".

Figure 19 Color scheme of the scene cards

Zhang Yirong (2025)

Logo design: the "tree" symbolizes growth, representing both the improvement of language skills and the growth of children accompanied by their parents. The central "tree trunk" depicts a "child reaching up and cheering," expressing a thirst for knowledge and the joy of growth. The six leaves represent knowledge, and their different colors are inspired by the colors of the scenario cards in the board game.

Figure 20 Logo

Zhang Yirong (2025)

The name and slogan of the board game are both "Talk Thai together". When displayed on the product packaging, the name is in Chinese and the slogan is in English.

Figure 21 Logo with brand name and slogan

Zhang Yirong (2025)

Symbol Design: based on Graphic Design Theory, the researcher uses symbols to replace repetitive rule explanations, making the card interface more concise.

The "hourglass" symbol represents "quick-response challenges."

The "star" symbol represents "question/action challenges."

The "question mark" symbol represents "collaborative dialogue/sentence-building challenges."

Additionally, the symbols use the four colors: white, purple, blue, and orange. Among these colors, orange and blue are complementary colors, and orange and purple also create a strong contrast. Therefore, the researcher uses these two colors combinations to design the symbols for the board game.

On the purple background, the three symbols are designed as follows:
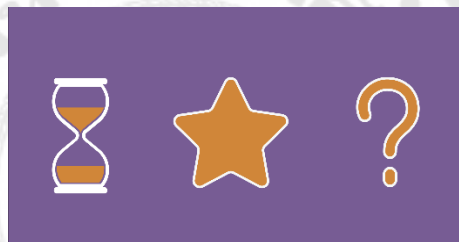
Figure 22 Symbol on the purple background

Zhang Yirong (2025)

On the blue background, the three symbols are designed as follows:
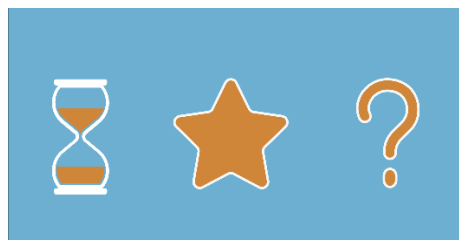
Figure 23 Symbol on the bule background

Zhang Yirong (2025)

On the orange background, the three symbols are designed as follows:
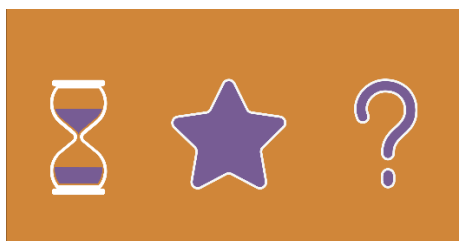
Figure 24 Symbol on the orange background

Layout Design: based on UX Theory, the text arrangement on the front of the card places the most important Thai language content at the top. On the back of the card, as the final step in the game process, the voice QR code is designed in the bottom-right corner to facilitate the voice learning step.
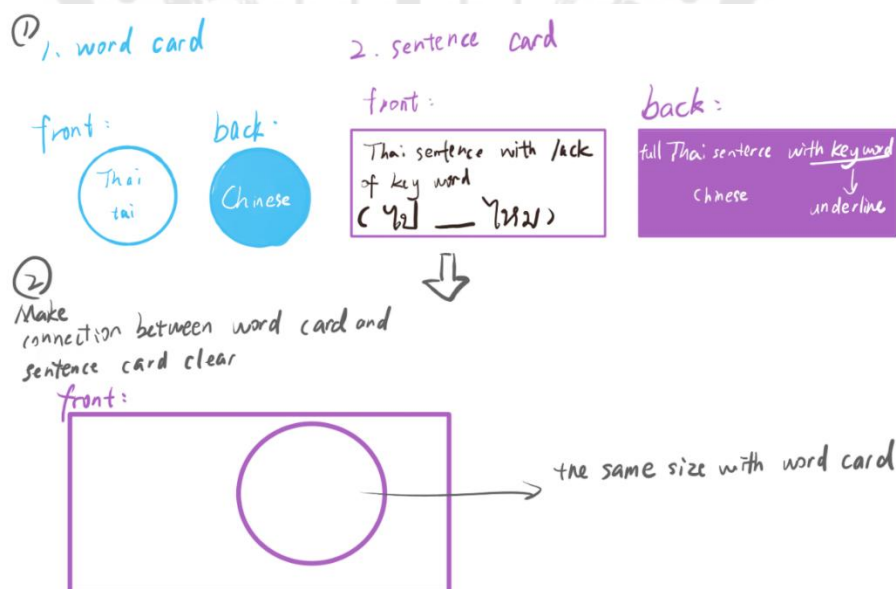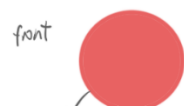
Draft:

Figure 25 Draft 1

Figure 26 Draft 2
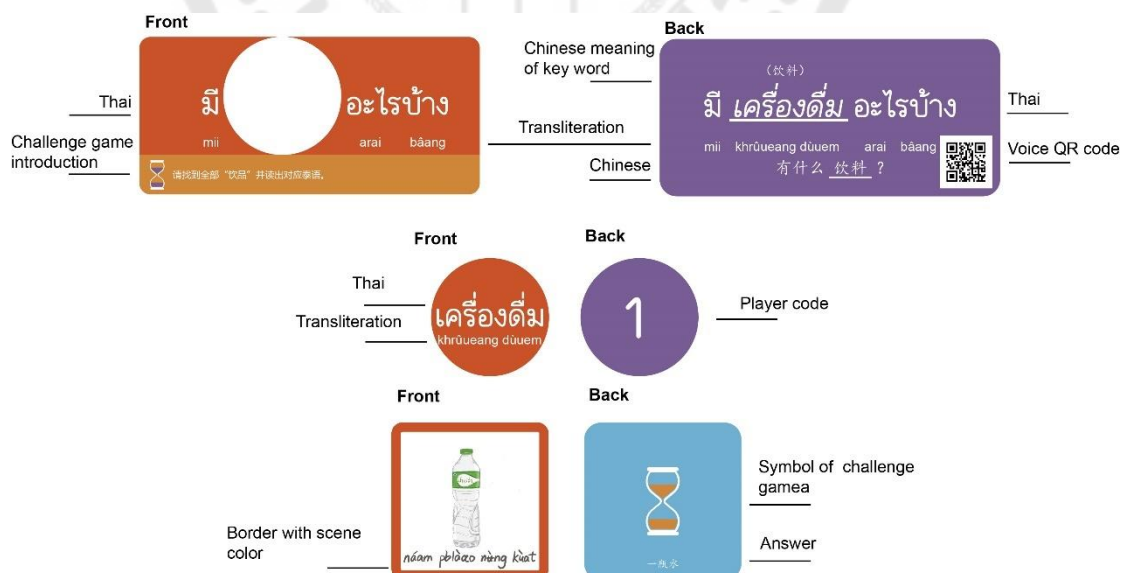
Zhang Yirong (2025)

Final draft:

Figure 27 Final draft

Zhang Yirong (2025)

Illustration design: according to the results of the questionnaire survey, the respondents prefer hand-painted style, so the illustrations and packaging of this board game are hand-painted. All of the illustrations are as follows:

Figure 28 Illustrations 1

Zhang Yirong (2025)

Figure 29 Illustrations 2

Zhang Yirong (2025)

Figure 30 Illustrations 3

Zhang Yirong (2025)

Gameplay Design: based on the CLIL (Content and Language Integrated Learning) theory, the standout feature of this board game's gameplay is the integration of language learning with subject learning. Therefore, in addition to Thai language learning, this board game also incorporates knowledge related to Thai culture, history,

etiquette, and general knowledge, all embedded within six scenario-based "challenge" games. Furthermore, this part of the design has been informed by the suggestions of three experts. The "etiquette" knowledge section also applies UI (User Interface) theory, allowing players to engage not only visually and auditorily but also through physical actions. The six scenarios are derived from the top six scenarios ranked in a questionnaire survey, with all six scenarios scoring above the average.

According to UI theory, the board game's gameplay design emphasizes a "user-centered" approach. In the "collaborative dialogue/sentence-making challenge," players will respond based on their real-life experiences. Additionally, the game incorporates a points system, drawing on the common rules of three parent-child board games. The game includes a win-or-lose mechanism, where players earn points for answering correctly or completing challenges, encouraging them to continue playing. This aligns with the UI design theory of progressively revealing information. During gameplay, players first learn the pronunciation of Thai words, then understand their meanings through corresponding Chinese translations, and finally trigger "challenges" to acquire additional knowledge about Thailand beyond language.

All cards are shown below:

From figure 31 to 35 show all the cards in the "expressing feelings".

Figure 31 Cards 1

Figure 32 Cards 2

Zhang Yirong (2025)

ฉันดีใจมากที่ได้มาอีก

chán dii jai mâak tîi dâi maa iik
你喜欢坐飞机吗？

ฉันดีใจมากที่ได้มาอีก

chán dii jai mâak tîi dâi maa iik

ฉันเสียใจมากที่ไม่ได้ไปกับคุณ

chán sǐa jai mâak tîi mâi dâi bpai gàp kun
我很遗憾我没有和你一起去。

ฉันเสียใจมากที่ไม่ได้ไปกับคุณ

chán sǐa jai mâak tîi mâi dâi bpai gàp kun

（激动，紧张）
ฉัน _ตื่นเต้น_ มากที่จะได้ไปตลาดนำ

chán dtùen dtên mâak tîi jà dâi bpai dta làat náam
我很 兴奋 能去水上市场。

มากที่จะได้ไปตลาดน้ำ

chán mâak tîi jà dâi bpai dta làat náam

（害怕）
ฉัน _กลัว_ หลงทาง

chán glua lǒng taang
我 害怕 迷路。

ฉัน หลงทาง

chán lǒng taang

น่าเสียดาย

nâa sǐa daai
真可惜。

น่าเสียดาย

nâa sǐa daai

ยินดีด้วยนะ

yin dii dûai ná
恭喜你。

ยินดีด้วยนะ

yin dii dûai ná

Figure 33 Cards 3

Zhang Yirong (2025)

Figure 34 Cards 4

Zhang Yirong (2025)

Figure 35 Cards 5

Zhang Yirong (2025)

From figure 36 to 44 show all the cards in the "restaurant".

Figure 36 Cards 6

Figure 37 Cards 7

Zhang Yirong (2025)

Figure 38 Cards 8

Zhang Yirong (2025)

Figure 39 Cards 9

Zhang Yirong (2025)

ขอทิชชู่หน่อย
kɔ̌ɔ tít chûu nɔ̀i
麻烦给(我)一些餐巾纸。

ขอทิชชู่หน่อย
kɔ̌ɔ tít chûu nɔ̀i

ขอกลับบ้านนะ
kɔ̌ɔ glàp bâan ná
麻烦打包。

ขอกลับบ้านนะ
kɔ̌ɔ glàp bâan ná

ช่วยห่อกลับบ้านหน่อย
chûai hɔ̀ɔ glàp bâan nɔ̀i
麻烦放在外带盒里。

ช่วยห่อกลับบ้านหน่อย
chûai hɔ̀ɔ glàp bâan nɔ̀i

อร่อยมาก
arɔ̀i mâak
非常美味。

อร่อยมาก
arɔ̀i mâak

ไม่อร่อยเลย
mâi arɔ̀i ləəi
一点也不好吃。

ไม่อร่อยเลย
mâi arɔ̀i ləəi

(不，没有)
ที่สั่งไปยัง ไม่ ได้เลย
tîi sàng bpai yang mâi dâai ləəi
(我)点的菜 还 没上。

ที่สั่งไปยัง ได้เลย
tîi sàng bpai yang dâai ləəi

Figure 40 Cards 10

Zhang Yirong (2025)

Figure 41 Cards 11

Zhang Yirong (2025)

Figure 42 Cards 12

Zhang Yirong (2025)

Figure 43 Cards 12

Zhang Yirong (2025)

kâao bplàao sɔ̌ɔng jaan

两碗米饭

gǔuai dtǐiao

船面

pàt tai nừng jaan

一份泰式炒粉

Figure 44 Cards 14

Zhang Yirong (2025)

From figure 45 to 48 show all the cards in the "travelling".

Figure 45 Cards 15

Figure 46 Cards 16

Zhang Yirong (2025)

Figure 47 Cards 17

Zhang Yirong (2025)

Figure 48 Cards 18

Zhang Yirong (2025)

From figure 49 to 57 show all the cards in the " greetings & introducing yourself".

Figure 49 Cards 19

Zhang Yirong (2025)

Figure 50 Cards 20

Zhang Yirong (2025)

Figure 51 Cards 21

Zhang Yirong (2025)

Figure 52 Cards 22

Zhang Yirong (2025)

Figure 53 Cards 23

Zhang Yirong (2025)

Figure 54 Cards 24

Zhang Yirong (2025)

1	ไม่ mâi	1	สอง sɔ̌ɔng	1	เรียน rian
1	ไม่เคย mâi kəəi	1	เคยมา kəəi maa	1	ครอบครัว krɔ̂ɔp krua
1	ครู kruu	1	คุณ kun	1	กำลังหา gam lang hǎa
1	ทำงาน tam ngaan	1	มาทำอะไร maa tam arai	1	ที่ไหน tîi nǎi

Figure 55 Cards 25
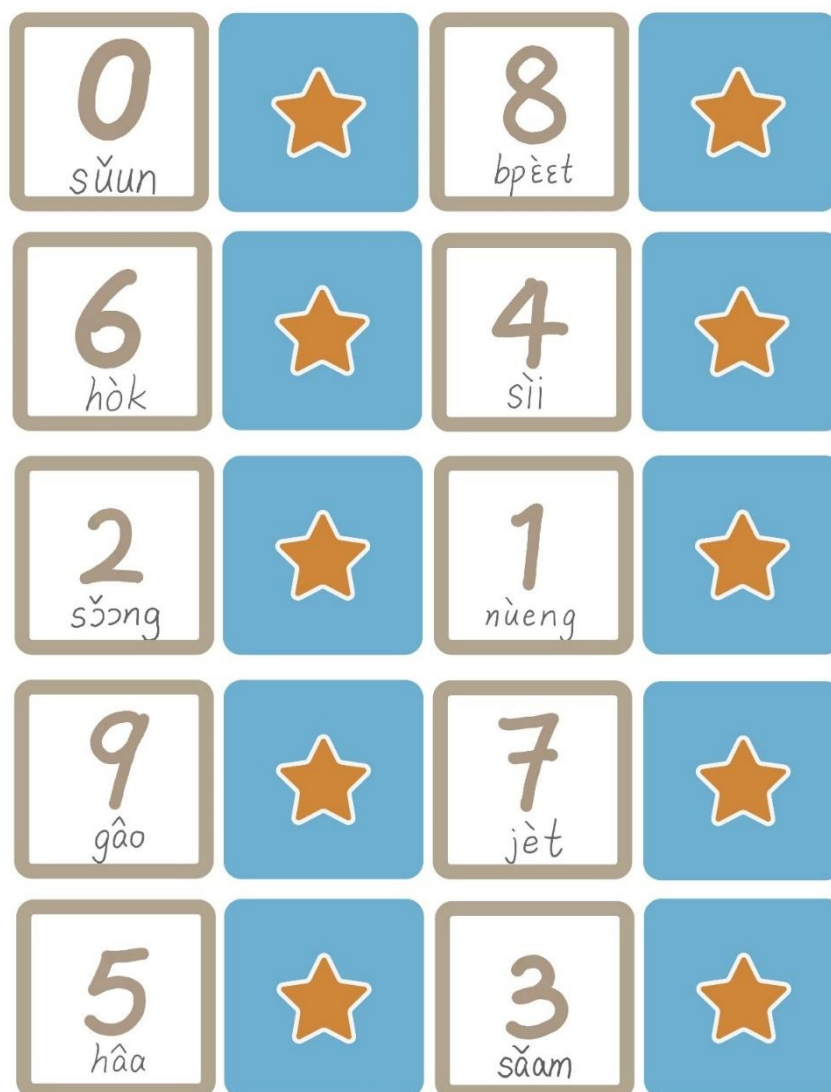
Zhang Yirong (2025)

Figure 56 Cards 26

Zhang Yirong (2025)

Figure 57 Cards 27

From figure 58 to 66 show all the cards in the " sightseeing".

Figure 58 Cards 28

Figure 59 Cards 29

Zhang Yirong (2025)

Figure 60 Cards 30

Zhang Yirong (2025)

Figure 61 Cards 31

Zhang Yirong (2025)

Figure 62 Cards 32

Zhang Yirong (2025)

Figure 63 Cards 33

Zhang Yirong (2025)

Figure 64 Cards 34

Zhang Yirong (2025)
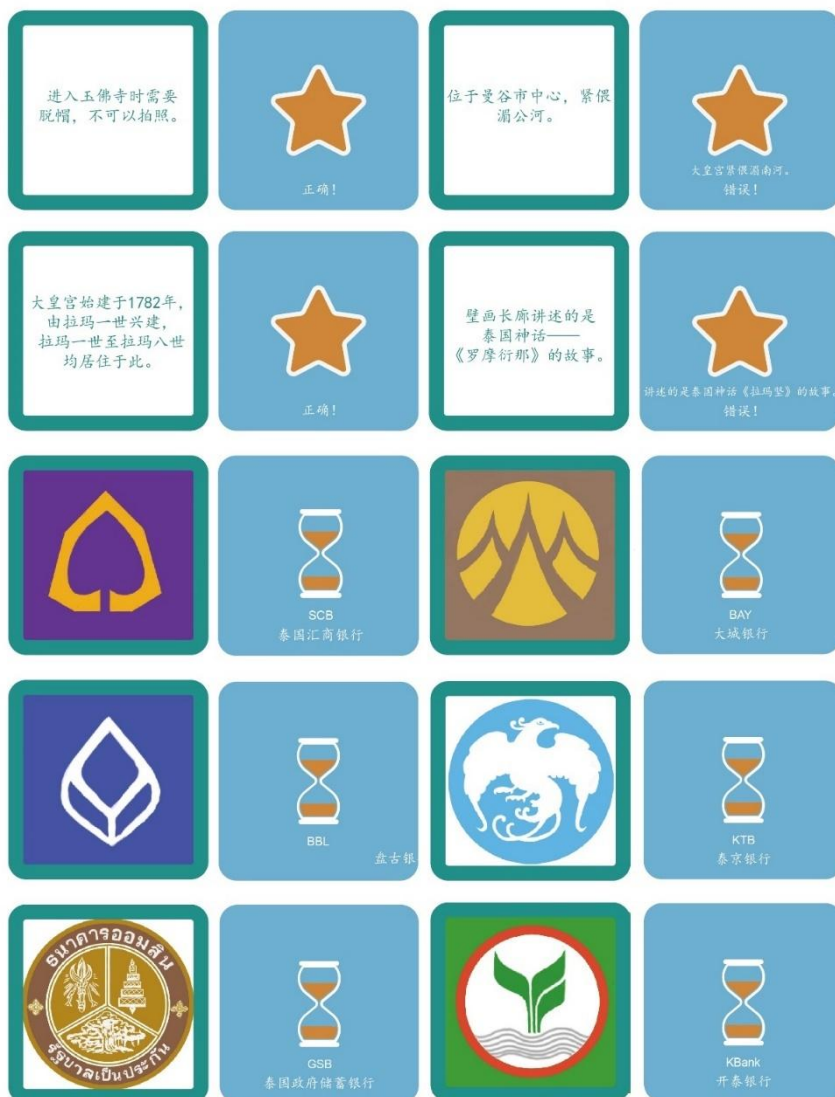
Figure 65 Cards 35

Zhang Yirong (2025)

Figure 66 Cards 36

Zhang Yirong (2025)

From figure 67 to 71 show all the cards in the " weather".

Figure 67 Cards 37

Figure 68 38

Zhang Yirong (2025)

Figure 69 Cards 39

Zhang Yirong (2025)

Figure 70 Cards 40

Zhang Yirong (2025)

Figure 71 Cards 41

Zhang Yirong (2025)

Step 4: Group test

Research Results:

Table 40 The test records 10 Chinese families in Bangkok

Code of family	Number of players	Test feedback
1	3	The game is very interesting, but the pronunciation of the scene cards cannot be known, so you need to find the answers yourself when playing.
2	2	Voice scanning is inconvenient.
3	2	The game setting of the challenge is very interesting, and the illustrations are also very beautiful. Many questions and answers are very practical, but some sentences are difficult and you may need to play them several times before you can master them.
4	2	Interested in the vocabulary section and hope to have a well-organized word list for easy reference of meanings and pronunciations.
5	3	At first, we didn't understand that the line below the Thai text on the cards was phonetic transcription, but we figured it out later. The sentence-building challenge is too difficult—it would be helpful to provide examples with audio and ideally some options for reference.
6	3	The 'challenge games' are quite fun and make me want to keep playing. However, I'd prefer illustrated rule explanations, as text-only rules are a bit boring.
7	2	The current difficulty level is acceptable for us, but it might be too hard for beginners, so it would be good to label this as an 'advanced version.' The all-Thai sentence-building part is especially challenging.
8	2	It would be great if the challenge cards also had QR codes for checking pronunciation and practicing along.
9	2	I wasn't very familiar with the Grand Palace information, so I had to cross-check the answers online. It would be nice to have more cultural knowledge supplements like this—my child found it particularly interesting.
10	2	The sentence-building part was difficult, and since the rules didn't specify that it had to be done entirely in Thai, there was some initial confusion. After understanding the requirement, I still found it quite challenging."

Most playtesting families specifically mentioned the 'challenge cards,' indicating they were particularly impressed by the game's three challenge mechanics. Two groups of players pointed out that the challenge cards lacked QR codes, making it inconvenient for them to verify pronunciations. Three groups commented on the difficulty

of the sentence-building challenge, with one group noting that the instructions for this challenge weren't clear enough. Regarding the rules, two groups provided feedback: one suggested adding more explanatory notes about card information in the rulebook, while the other felt the text-only rules were too monotonous and not simple enough to understand.

Table 41 The suggestions from three experts

Code of experts	Suggestions of experts
A	The game mechanics are well-designed, and the gameplay flows smoothly. Players are likely to find the three challenges particularly engaging. Additionally, it would be beneficial to include more 'etiquette' knowledge beyond just the 'wai' greeting - such as the use of honorifics. The current design only covers 'ค่ะ/ครับ', but doesn't address other aspects like question formulations.
B	Some sentences and vocabulary could be adjusted based on player feedback. For a game targeting Chinese learners, certain sentence subjects could be localized - for example, changing 'It's snowing in Canada now' to 'It's snowing in China now' in the weather section. Additionally, some Thai vocabulary could be replaced with English loanwords that are more commonly used in daily life and easier to remember, like using the English loanword for 'souvenir' instead of the Thai term.
C	Future expansions could introduce more challenges to broaden Thai cultural knowledge. While the current version features six scenarios, other scenarios like 'hospital situations' could be developed as a second edition, as this might be particularly useful for foreigners living in Thailand. This expansion approach seems quite feasible.

Step 5: Check business plan

 Research result:

According to the results of the questionnaire, Chinese families in Thailand usually learn about new products on the market through family and friends, and buy board games or similar products from offline stores. Experts recommend using social media to promote products, so the board games studied and designed in this study should focus on both online and offline sales and promotion.

According to the results of the questionnaire, respondents generally believe that board games should provide more forms of learning materials, such as voice, video, etc.

Experts recommend that a second series of board games should be launched in the future, so the cost of this product will also include the research and development of subsequent products.

A`

Table 42 Lean canvas model

Problem	Solution	Unique value proposition	Unfair advantage	Customer segment
1. A lack of Thai language teaching tools for Chinese families in the market. 2. Existing Thai learning board games mostly focus on learning letters and words, and players cannot master sentences. 3. Chinese people have pronunciation problems when learning Thai.	1. Design targeted sentence banks based on surveys. 2. All teaching content has corresponding transliterations and pronunciations. 3. Game settings are suitable for family interaction. **Key metrics** 1. Design and production. 2. Provide tutorial videos. 3. Release advanced versions based on feedback. 4. Customer service to answer questions.	The only family board game on the market for Chinese people to practice Thai conversation. It provides practical Thai sentence learning, establishes a voice library for all learning content, and has a unique illustration style.	1. Learning content that meets user needs after investigation. 2. Gameplay design 3. Illustration style **Channels** 1. Offline: Choose bookstores or stationery stores in shopping malls as the main offline sales channels; Promote to educational institutions, help promote to their students. 2. Online: Cooperate with Thai bloggers to promote products, tutorials.	1. Chinese families living in Thailand 2. People who have a basic knowledge of Thai 3. People who want to communicate in Thai 4. Families who want to increase their knowledge 5. Families who want more family interaction

Table 42 (Continued)

Cost structure	Revenue streams
1. Costs of producing and designing board games	1. Sales profit
2. Costs of online and offline advertisement	2. Brand peripherals
3. Operation costs of official websites and stores	
4. Shipping and packaging costs of selling products, etc.	

Step 6: Design a final product

Therefore, according to the feedback from 10 families, there are 3 main adjustments to the draft:

1. Add QR codes to challenge cards

2. Add reference answers to sentence-making challenges, and indicate on the board game that this board game is suitable for users with a certain Thai language foundation.

3. Added a video introducing the game rules

According to the suggestions of the three experts, there are 2 main adjustments to the draft:

1. Expand some knowledge about "etiquette".

2. Adjust some vocabulary and sentences to make them more in line with the actual situation and habits of users.

The researcher thinks that the suggestions of Supachai Wirasa are more suitable for subsequent product development.

Research Results:

The adjusted parts are as follows:

1. Add voice QR code and reference answers for challenge games.

Figure 72 Reference answers for challenge games

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2. Add a sentence card about the usage of "ค่ะ".

Figure 73 Sentence card of etiquette usage

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3. Change words to English loanwords.

Figure 74 Sentence card of souvenir

Zhang Yirong (2025)

4. Make a video introducing the game rules

Link to this video: https://www.youtube.com/watch?v=GOPqLKgYSVM

Therefore, the final product is shown below:

Figure 75 Packaging of board game

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Figure 76 Card set

Zhang Yirong (2025)

CHAPTER 5

CONCLUSION DISCUSSION AND SUGGESTION

This study aims to identify the Thai daily usage sentences that Chinese families in Bangkok wish to learn and to design a board game product tailored to help them acquire these sentences. Through methods such as surveys and expert interviews, the research collects and summarizes the Thai daily usage sentences desired by Chinese residents in Thailand, along with their preferred learning content. Additionally, by analyzing top competing products and leveraging research literature, surveys, and expert consultations, the researcher a board game to assist Chinese families in Thailand in learning practical Thai daily usage sentences. After internal group testing, a finalized design is proposed, accompanied by a Lean Canvas analysis. After analysing and researching, the presentation and discussion of the findings are divided into three parts.

1. Conclusion

Summarize the Thai daily usage sentences

The researcher sourced 365 Thai daily expressions from Pickup Thai, which were categorized into 15 thematic groups based on usage scenarios. Fifteen of these groups include: greeting & introducing yourself, making friends, family, memory, expressing feelings, traveling, transportation, sightseeing, weather, hotel, restaurant, shopping, feeling unwell, communication and miscellaneous. Additionally, 298 key vocabulary words were extracted from Thaipod101. After removing 35 phrases deemed unsuitable for family learning, the remaining 330 expressions were analyzed, revealing that 223 of them contained the key vocabulary. Through surveys, the researcher identified six scenarios that respondents prioritized for learning: weather, restaurant, traveling, transportation, expressing feelings, greeting & introducing yourself.

During playtesting, the researcher observed that the participating Chinese families generally struggled with pronunciation. Additionally, experts suggested replacing certain words in the phrases with alternatives that would be easier for players

to remember. For example, replacing "ของฝาก" with "souvenir" — as Chinese players are more familiar with such English loanwords, and this substitution would remain practical for daily life usage.

Graphic design

The researcher summarized the color combinations used by the top three selling family board games and language teaching board games on the market, and combined with the questionnaire survey, selected the more popular "purple, orange, blue and white" as the main colors of this design. The Thai daily usage sentences sorted out are divided into six groups according to the usage scenarios. These six groups of sentences use six colors to facilitate the distinction and organization of cards, namely: greeting & self-introduction corresponds to maroon, expressing emotions corresponds to pink, traveling corresponds to yellow, tourism corresponds to blue-green, weather corresponds to dark blue, and restaurants correspond to red.

In terms of text layout, the most important Thai language to learn is the largest in the middle of the card, followed by the transliteration part that players refer to when learning, and finally the corresponding Chinese, and the voice QR code is located in the lower right corner of the card.

Game design

The design of the board game adopts the main gameplay of speed racing combined with word filling and sentence making, and the CLIL theory is used to design the "challenge game", that is, to add the learning of other subjects to language learning to help learners deepen their impression of language learning. For example, in the research and design of this board game, knowledge about other subjects such as Thai geography, climate, etiquette, and history was added based on the results of the questionnaire and expert interview. In the trial test, most of the test groups were impressed by the "challenge game" and were willing to practice many times and look up relevant knowledge on their own. In this study, the researcher unexpectedly found that the respondents were very interested in Thai etiquette, which was also mentioned in the expert interview. The experts believed that the use of Thai etiquette or Thai honorifics should be involved in the board game, which was something the researcher had not

expected before. Therefore, in this design, the researcher designed relevant games in the "challenge game" of the board game to help players learn the use of honorifics and the relevant knowledge of "namaste".

In terms of the win-lose mechanism, this board game will not produce the final player before the end of the game, and the point system is used so that players will not give up halfway during the game, and will feel satisfied when the game is settled.

In view of the common pronunciation difficulties of Chinese people when learning Thai, the research and design of this board game added "voice QR code" to assist the game, help players check pronunciation, make the game process more convenient, and make the learning process more rigorous.

2. Discussion

In this study, it was found that players have many problems with Thai pronunciation, and this problem was also mentioned in the interview with the experts. This is consistent with two of the four common problems mentioned by Hujiang Thai when Chinese people learn Thai. 1. Tones. 2. Distinguishing between vowels and consonants. 3. Grammar, that is, the order of subject, predicate and object in a sentence. 4. Politeness. And the fourth problem also attracted the attention of the respondents and experts. Among the respondents, 54% were interested in Thai etiquette. Two of the three experts mentioned that it is possible to add content in board games for Chinese people to learn Thai etiquette and honorifics. This problem is consistent with what Liao Yufu (2008) summarized in the Thai textbook 'Basic Thai (1)': Due to the similarity between Chinese and Thai grammar, the main problem Chinese people have when learning Thai is pronunciation.

Since there are no board games designed for Chinese people to learn Thai sentences on the market, the board game studied and designed this time is the first one. When analyzing the three language education board games that rank top three in sales on Taobao, the researcher found that since these three board games are all English education board games, no matter whether the gameplay involves English

words or English sentence grammar, they cannot be directly used as a design reference for learning Thai sentence board games, because first of all, Chinese people are not as familiar with Thai letters as they are with English letters, and secondly, English grammar is different from Thai grammar. However, what is consistent in the gameplay design is that these three board games all have competition elements and although the grammar is different, the gameplay of "making sentences" is also feasible in Thai.

When designing the board game gameplay, the game process includes reading sentences, filling in blanks to complete sentences, checking answers in Chinese, illustrations to prompt answers, and card classification by scene, etc. After 10 groups of Chinese families tried it out, their trial results showed that this gameplay is feasible. Players understand the learning content and can independently query more relevant knowledge. This matches with the IC components proposed by Grassy, Betul & Guler, Bekir (2023) in the study of 'Chapter 7 Establishing mutual understanding in CLIL-based L2 game interactions'. The study's findings indicate that family members collaboratively engage in English discussions regarding (i) lexical terms, (ii) game-related questions, and (iii) potential answers to card prompts while participating in a CLIL-based board game. These interactions facilitate mutual comprehension, a key element of interactional competence (IC).

In the design of this board game, the game wins and loses using a points system, which is competitive in nature. Players generally think it is more interesting. All test groups completed the entire game process and did not think the game should end early. This design is consistent with the four common characteristics of board games summarized by Sarinee Achwananthakul (2016) in the 'Board | Game | Universe': No elimination of players before the game ends; Real brain training and skill testing; Interaction between players; There is a tempting 'cake' and a smooth 'teaching' mechanism.

In this study, the design of the "challenge game" includes elements such as quick response and Namaste, which covers actions, sounds and symbols. This design impressed most of the trial groups. This conclusion is consistent with the results of the

expert Evelina Venngren (2021) in the study of 'Applying Principles of Game Design to User Interface'. Evelina Venngren (2021) said that adding symbols, behaviors and sounds to game design can make players feel more interesting and more immersed in the game.

3. Suggestion

In this study, according to the feedback from the respondents, the sentences in the board game cover six scenarios: weather, restaurant, traveling, transportation, expressing feelings, greeting & introducing yourself. In subsequent related research, board games for learning sentences in other scenarios can be designed according to the needs of the research subjects.

This questionnaire is aimed at 100 Chinese families who have lived in Thailand for half a year or more. Their Thai learning needs and preferences were investigated to design board games. In subsequent research, the number of surveys can be expanded, and more detailed investigations can be conducted on learning needs, such as the reasons for learning sentences related to the scenario, so as to design the content of the board game more carefully.

This study and design mainly used CLIL theory, mainly involving non-linguistic subject knowledge such as Thai geography, climate, etiquette, etc., but it is not deep enough. Subsequent research can consider designing for a certain field of disciplines, such as designing a board game for Thai history knowledge, so that players can learn Thai history while visiting Thai attractions, and thus learn Thai. For example, knowledge of Thai etiquette can add more knowledge about customs, and design a Thai learning board game in combination with customs of different regions in different Thai festivals.

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OPiAex6bXWugZ5YiyDieG-XAk=&uniplatform=NZKPT&language=CHS

APPENDIX

Questionnaire

Part 1. Basic information of the respondents (personal information, channels for learning Thai, etc.)

1. Your age is [single choice]

A. Under 20 years old

B. 20-30 years old

C. 30-40 years old

D. Over 40 years old

2. How many members in your family (including yourself)

[single choice]

A. 1 person

B. 2 people

C. 3 people

D. 4 people

E. 5 or more people

3. Your job is [single choice]

A. Unemployed/Housewife

B. Part-time job

C. Individual merchants

D. Office workers

E. Others (please specify)

4. Your Thai language level [single choice]

A. No basis

B. Can use some words

C. Can use some sentences

D. Very fluent

5. What channels do you mainly use to learn Thai? (Multiple choices are allowed)

A. School or language institution

B. Online courses or apps

C. Self-study (such as books, videos)

D. Communicate with local people

E. Others (please specify)

6. If you use board games to learn Thai, how much time do you and your children want to spend on it (each time) [single choice]

A. Less than 0.5 hours

B. 0.5-1 hour (Includes one hour)

C. 1 hour - 2 hours

D. More than 2 hours

Part 2. Preferences for board game content

7. Please rate the importance of the following scenarios according to your needs (1 to 5 points)

(1). Greetings & introducing yourself

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(2). Family (eg: How many brothers and sisters do you have? / I am an only child)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(3). Communication (eg: Does anyone speak English? / How do you say this in Thai?)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(4). Making friends (eg: Are you free? / What's your Line number?)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(5). Hobbies & Feelings (eg: I like cooking. / Congratulations)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(6). Memory (eg: I don't know./I don't remember.)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(7). Transportation

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(8). Sightseeing (eg: Where can I buy the ticket? / Can you take a photo for us?)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(9). Travelling (eg: Have a safe journey. / I am going to take a train.)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(10). Hotel

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(11). Weather

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(12). Restaurant

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(13). Shopping

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

(14). Hospital (eg: I have a fever. / Have you taken medicine?)

           ○ 1   ○ 2   ○ 3   ○ 4   ○ 5

8. How much Thai cultural elements do you want to be included in the board game? (Multiple choice question)

A. Thai food

B. Attractions

C. Traditional costumes

D. Thai festivals

E. Honorific usage/etiquette

F. Masterpiece

G. Others (please specify)

9. How complex do you want the rules of the board game to be?

A. Very simple (Haven't played)

B. Moderate (Played, suitable for parents and children to participate together)

C. More complex (Played, and also want to play with colleagues/friends)

D. Other (please specify)

10. What learning goals do you hope to help yourselves or your child achieve through this board game? (Multiple choices are allowed)

A. Understand basic Thai vocabulary

B. Learn Thai sentences

C. Understand Thai culture

D. Enhance parent-child interaction

E. Others (please specify)

Part 3. Preferences for board game art styles

11. Which color combination do you think is suitable for Thai language teaching board games that designed for parents and children?

A. ■ ■ ■

B. ■ ■ ■

C. ■ □

D. ■ ■

E. ■ □ ■ ■

F. ■ ■ □ ■

12.

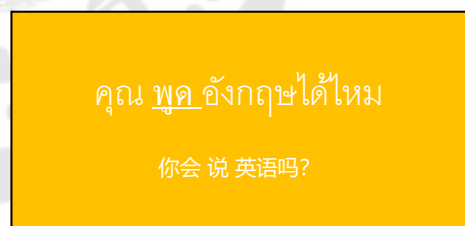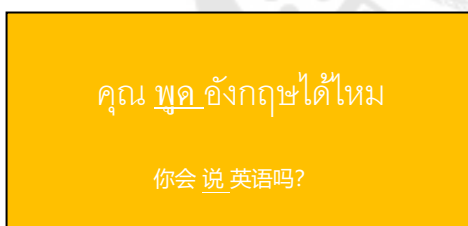A. Hand-painted style

B. Concise style

C. Realistic style

13. Which of the following text layouts do you think is more suitable for learning Thai?
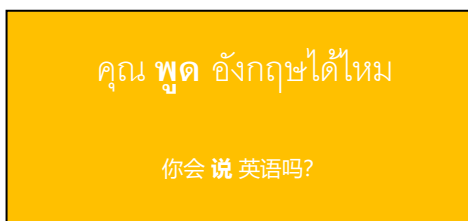
A. Underline both Thai and Chinese   B. Underline just Thai

คุณ <u>พูด</u> อังกฤษได้ไหม

你会 <u>说</u> 英语吗?

คุณ <u>พูด</u> อังกฤษได้ไหม

你会 说 英语吗?

14. Which of the following text layouts do you think is more suitable for learning Thai?

A. Change the font for Thai and Chinese   B. Change the font for just Thai

คุณ **พูด** อังกฤษได้ไหม

你会 **说** 英语吗?

คุณ **พูด** อังกฤษได้ไหม

你会 说 英语吗?

15. Which of the following text layouts do you think is more suitable for learning Thai?

A. Change the color of Thai and Chinese   B. Just change the color of Thai

Part 4. Purchase intention

16. Where do you usually play board games? (Multiple choices are allowed)

A. Family gatherings

B. Friend gatherings

C. School or educational institutions

D. Traveling

E. Others (please specify)

17. What channel did you use to buy board games or similar products last time?

A. E-commerce platforms (such as Taobao, Xiaohongshu)

B. Bookstores

C. Toy stores

D. Shopping malls

E. Educational institutions or schools

F. Others (please specify)

18. What is the price range you are willing to pay for such a board game?

A. Less than 50 yuan

B. 50-100 (includes 100 yuan)

C. 100-200 yuan (includes 200 yuan)

D. More than 200 yuan

29. Which way do you prefer to learn about new product information? (Multiple choice)

A. Social media advertising

B. Recommendations from friends or family

C. Offline events or exhibitions

D. Others (please specify)

20. Do you want a mobile app to assist learning with the board game?

A. Yes

B. No

21.What additional resources do you want the board game to include? (Multiple choice)

A. Board game itself is enough

B. Voice recognition function

C. Online courses

D. Cultural knowledge expansion

E. Others (please specify)

22. Are you willing to pay more for higher quality materials (such as wood)?

A. Yes

B. No

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