

Investigation and Study of the Linguistic Landscape along the China-Vietnam Border based on Place Semiotics

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Abstract: With the accelerated advancement of Yunnan Province's construction as a radiation center towards South Asia and Southeast Asia, the language landscape along the China-Vietnam border has presented a rich and diverse characteristic. This study takes 393 signs in the sampling area of Hekou Yao Autonomous County, Yunnan Province as the research object and conducts statistical analysis on the samples using the theory of place semiotics. The research finds that multiple language codes such as Chinese, English, French and Vietnamese exist in the language landscape of the sampling area, with Chinese being the dominant code. The language landscape in the sampling area shows a trend of monotonization in the mode of character engraving and is significantly characterized by scene placement. The language landscape in the commercial area has a "chunk effect", while that in the administrative area highlights authority. Additionally, this study discusses the construction, setting and optimization of the language landscape in border areas from the perspectives of language contact, language attitude and language economics.

Keywords: Place Semiotics, Linguistic Landscape, China-Vietnam Border.

1. Introduction

Linguistic landscape is one of the hot topics in social linguistics field in recent years. Landry & Bourhis defines linguistic landscape as the linguistic landscape of a territory, region, or city group of languages that appear on public street signs, billboards, street names, place names, shop signs, and public signs on government buildings. [1] In recent years, domestic language landscape research has mainly focused on the central business district of cities (Zhang Yuanyuan, Zhang Binhua, 2016; Liu Chuqun 2017), Tourism Historical Scenic Spot (Zhang Hui, Shi Ke 2020; Shi Lin 2021), ethnic minorities or ethnic minority areas (Li Lisheng, Xia Na 2017; Nie Peng, Munayeha, 2017), foreign immigrants or diaspora settlements (Yu Weiqi, Wang Tingting, Sun Yanan, 2016) [2] pay less attention to the language landscape in border areas. As an important resource of border language ability and an important component of national language ability, the language landscape of border areas plays an important role in "border defense and border protection and good-neighborliness".

China and Vietnam are connected by mountains and rivers and have similar cultures. Hekou Yao Autonomous County in Honghe Prefecture, Yunnan Province plays an important role in the promotion of Greater Mekong Sub-Region Economic Cooperation (GMS) and the construction of China-Asean Free Trade Area 3.0. With the continuous advancement of the "One Belt, One Road" Initiative and the "Two corridors and one Economic Circle" plan, the development trend of the China-Vietnam border area is stable and improving, and has many impacts on the language life of the society. Based on this, this study starts with the language landscape of Hekou County, a border port city of China and Vietnam, and investigates the socio-linguistic life situation in the border area of China and Vietnam. Based on the theory of place semiotics proposed by Scollon S.W., this paper uses a combination of quantitative and qualitative methods to conduct a statistical analysis on 393 valid samples in the main

urban area of Hekou County on the China-Vietnam border, aiming to explore the following two questions: First, what objective characteristics and influencing factors of urban language landscape at Sino-Vietnam border ports; Second, how to optimize the language landscape setting in the border port cities of China and Vietnam.

2. Research Design

2.1. Theoretical Framework

Scollon R. and Scollon S.W. put forward the theory of place semiotics in 2003, which is one of the more complete frameworks for the study of linguistic landscape. It consists of sub-systems such as code preference, inscription, and emplacement. Code preference focuses on the priority of different languages in bilingual or multilingual signage, choosing a language because it symbolizes a social group and indexes the geographical location of that language group. Lettering is a meaning system about the way the code is presented, including font, material, state change, language font, additional elements and so on. Emplacement is the meaning activated by a sign placed in a specific location, including three types of decontextualized placement, transgressive placement and situated placement. Decontextualized placement means that the sign is not affected by the context, and appears in the same form in any scene; Transgressive placement refers to signs that appear in the wrong place; Situated placement is when the indicator card is placed in the appropriate scene to perform its function [3].

2.2. Overview of Sampling Area

Hekou Yao Autonomous County, Honghe Hani Yi Autonomous Prefecture, Yunnan Province, faces Lao CAI Province of Vietnam across the river. It is an important gateway of the "Kunming-Hanoi-Haiphong Economic Corridor" and an important hub of Kunhe Highway, Yunnan-Vietnam Railway and Honghe Waterway. Hekou Port is the

largest port in Yunnan section of China-Vietnam border, and also the terminus of Kunhe section of Yunnan-Vietnam Railway. In this study, the main urban area of Hekou County is selected as the sample collection point, which mainly includes four areas: China and Vietnam City, Hekou port forest Park, riverside landscape belt and Hekou gate scenic spot. The sampling area is representative of the cities at the border ports of China and Vietnam, with intensive exchanges of domestic and foreign personnel, high degree of language contact and rich language varieties. The language landscape in this area can fully reflect the language ecology of the cities at the border ports of China and Vietnam.

2.3. Research Methods

This study is based on field research conducted in January 2025, the most recent data available, during which the research team spent a week in Hekou Yao Autonomous County and conducted image collection on the visible range of signs (including street signs, door plates, building name plates, shop signs, warning boards, posters, etc.) on both sides of the streets in the sampling area. In this process, according to Backhaus, each signage with a distinct border is regarded as an independent unit of measurement (just as a shop with different sizes and other identical signage counts as one) [4]. Duplicate or defaced signs were deemed invalid signs, and a total of 406 signs were collected, of which 393 were valid.

3. Analysis of Survey Results

3.1. Code Preference

3.1.1. Combination of Symbols

There were 393 valid samples in this survey, which were divided into monolingual signs, bilingual signs and multilingual signs according to the combination of language signs. The language landscape of Hekou County shows the characteristics of diversification and complexity in the combination of symbols.

According to statistics in Table 1, 160 monolingual signs account for 40.71% of the language landscape in the main urban area of Hekou County, which is dominated by Chinese monolingual signs, which reflects the dominant position of Chinese. The number of signs in Vietnamese and English is relatively small, accounting for 2.54% and 1.53% respectively. Vietnamese monolingual signs are mostly seen in shops in China and Vietnam City, reflecting the influence of Vietnamese culture in Hekou County on the China-Vietnam border; English monolingual signs are mainly related to international chain brands, indicating that although Hekou County is a small county, it has a certain trend of internationalization.

Bilingual sign is the highest type of language landscape in Hekou County, accounting for 47.84%. The combination of "Chinese + Vietnamese" accounts for the highest proportion of 32.32%, which further emphasizes the integration and interaction of Chinese and Vietnamese cultures. Bilingual signs in China and Vietnam are widely distributed in the commercial streets of the riverside landscape belt and at the entrance of the national scenic spot. This combination of symbols not only provides convenient language information services for Vietnamese nationals in China, but also provides convenient language information services for Vietnamese nationals in China. It is also highly in line with the actual needs of Hekou County, as a border port city between China and Vietnam, in building a strategic China-Vietnam

community of common destiny. "Vietnamese + digital" signs mainly appear in body advertisements, clothing discount posters, tourism posters, and these business operators are mostly Vietnamese. Influenced by the globalization of English, "Chinese + English" bilingual signs account for 10.94%, mostly appearing in street signs and official warning signs in the main urban area of Hekou, reflecting the status of English as a global language and its influence in Hekou County. In addition, Hekou County has Yao, Yi, Han and other ethnic groups, so there is a case of "Chinese + Yao" sign in the pedestrian street of the riverside landscape belt, and there are four "Chinese + Yi + Yao" multilingual signs in the Hekou Border Economic Cooperation Zone. However, because the sampling area of this study is not in the ethnic minority populated area, there are fewer samples of ethnic minority characters.

Multi-lingual signs are mainly "Chinese + English + Vietnamese" three-language signs and "Chinese + English + French + Vietnamese" four-language signs, the former mainly appears in the entrance of the national scenic spot on the official signs and road signs, the latter appears in the warning signs near the Sino-Vietnamese bridge. This phenomenon of linguistic diversity, especially the preservation and use of French, can be traced back to the planning and construction of Yunnan-Vietnam railway in French history. Hekou County, as the terminal of the Chinese section of the railway, not only witnessed the traces of history, but also enriched the international image of the China-Vietnam border in Yunnan Province with its unique language landscape, playing an indispensable role in China's commercial and diplomatic activities.

Table 1. Distribution of Linguistic Symbol Combinations in Hekou County

Sign Classification Linguistic Symbol Combination	Sign Classification Linguistic Symbol Combination	Frequency (n) Percentage (%)	Frequency (n) Percentage (%)
Monolingual Signs	Chinese	144	36.64
	Vietnamese	10	2.54
	English	6	1.53
Bilingual Signs	Chinese + Vietnamese	127	32.32
	Chinese + English	43	10.94
	Chinese + Pinyin	6	1.53
	Chinese + Yao	1	0.25
	Chinese + Numbers	3	0.76
	Vietnamese + Numbers	8	2.04
Multilingual Signs	Chinese + Yao + Yi	5	1.27
	Chinese + English + Vietnamese	19	4.83
	Chinese + English + French + Vietnamese	21	5.34
Total		393	100

3.1.2. Dominant Code

In bilingual or multilingual signage, the order in which languages are placed and their spatial position in relation to each other reflects the status of the language in its language community [3]. A total of 366 signs in the sample area are mainly horizontal layout, and 27 signs are vertical layout. In horizontal layout signs, the dominant code is at the top, and the secondary code is often at the bottom; In China, due to the influence of traditional writing habits, the dominant code is usually placed on the right side of the vertical layout sign, and the secondary code is placed on the left side of the vertical layout sign.

Bilingual signs are the main form of language landscape in the sample area of Hekou County, and Chinese-Vietnamese bilingual signs are the main form of bilingual signs. Among the 124 horizontally typeset Chinese-Vietnamese bilingual signs, Chinese is above or in the center of the signs, and Vietnamese is below Chinese; In the vertical layout of the Chinese-Vietnamese bilingual signs, Chinese is on the right side and Vietnamese is on the left side. It can be seen that Chinese is the dominant code in Hekou County sampling area. Under the influence of national policies, language management, language audience and other factors, Chinese is the prevailing strong language in the China-Vietnam border area, and its language vitality is remarkable.

The status of English, French and Vietnamese codes, which are of secondary status, is different. Most of the horizontal typeset trilingual signs are Chinese, English, and Vietnamese, which indicates that English, as the most widely used language in the world, represents the influence of internationalization, globalization, and foreign cultures, and is overall dominant in the language competition in the sample area of Hekou County. At the same time, the research team also counted 7 cases of horizontal typesetted trilingual signs whose codes were arranged in the order of Chinese, Vietnamese and English. The position of Vietnamese in these 7 cases of signs was higher than that of English. It can be seen that with the prosperous development of border trade between China and Vietnam, border people have frequent exchanges, and Vietnamese culture represented by Vietnamese has a unique advantage in the language competition in Hekou County. French, as one of the six working languages of the United Nations, is designated as the first written language by the United Nations and is second only to English in international social and diplomatic activities, so whether it is horizontal or vertical four-language signs, the foreign language code is arranged in English, French, Vietnamese.

3.1.3. Sign Type

According to the framework of language landscape

research by Ben-Rafael et al. [5], the collected signs were divided into official signs and private signs. Official signs are set up by government agencies in accordance with certain norms, representing the position and behavior of the government, conveying the national language policy and official ideology, such as door signs, road signs, traffic signs, warning signs, publicity boards, etc. Private signage is set up by private individuals or enterprises to disseminate commercial information, realize commercial intentions or maximize their own interests, such as shop signs, billboards, etc.

As can be seen from Table 2, in the sample area of Hekou County, Chinese monolingual signs dominate in both official signs and private signs, highlighting the strong dominant position of Chinese in this area. The official bilingual signs are mainly bilingual signs in Chinese and English, reflecting that Hekou County actively engages with international standards at the official level and is committed to enhancing its international influence. In the field of private signage, the proportion of bilingual signs in China and Vietnam is as high as 45.52%, becoming the mainstream. According to the latest available statistics, in 2024, the number of entry-exit inspections at Hekou border checkpoints reached 5.694,200, an increase of 37.2% year-on-year, respectively, and the number of entry-exit at Hekou ports ranked first in the open ports of Yunnan Province. [6] In view of the close exchanges between the border people of China and Vietnam and the prosperity of border trade, businesses and residents in Hekou County are more inclined to use Chinese-Vietnamese bilingual signs in private business activities to meet the needs of communication with Vietnamese customers. This phenomenon shows that in the language competition of private signage, Vietnamese has a clear advantage over English. The lack of multilingual signs in the private sector indicates that businesses and residents are relatively conservative and single in the use of language, and also reflects the reality that Hekou County, as a small county seat of a fourth-tier city, is not highly internationalized.

Multilingual signs are all concentrated in the official signs, with "Chinese-English and Vietnamese" trilingual signs (15.2%) and "Chinese-English and French-Vietnamese" four-language signs (16.8%), reflecting the information function of official signs in external communication and the symbolic function of the government's initiative to integrate with the world; In addition, five cases of official signs of the combination of national common language and minority languages "Chinese + Yao + Yi" were found in the sampling area, which also shows the determination of Hekou County to strive to become a demonstration area of ethnic unity in Yunnan Province.

Table 2. Types of Official and Private Signs in Hekou County

Sign Classification	Linguistic Symbol Combination	Official Signs (n)	Percentage (%)	Private Signs (n)	Percentage (%)
Monolingual Signs	Chinese	53	42.4	91	33.96
	Vietnamese	0	-	10	3.73
	English	0	-	6	2.24
Bilingual Signs	Chinese + Vietnamese	5	4.0	122	45.52
	Chinese + English	22	17.6	21	7.84
	Chinese + Pinyin	0	-	6	2.24
	Chinese + Yao	0	-	1	0.37
	Chinese + Numbers	0	-	3	1.12
	Vietnamese + Numbers	0	-	8	2.98
Multilingual Signs	Chinese + Yao + Yi	5	4.0	0	-
	Chinese + English + Vietnamese	19	15.2	0	-
	Chinese + English + French + Vietnamese	21	16.8	0	-
Total	-	125	100	268	100

3.2. Inscription

Scollon & Scollon (2003) pointed out that in a specific public place, all official signage will have a uniform design principle. The language landscape engravings in the sample area of Hekou County show the characteristics of single modal language landscape and multi-modal language landscape.

From the modal point of view, language landscape can be divided into two types: single modal and multi-modal. Single modal language landscape mainly relies on text as a medium to convey information, such as traditional road signs, shop signs, etc. The multimodal language landscape integrates a variety of symbol systems such as text, image, color and sound to form a more complex and expressive way of information transmission, such as dynamic advertising on electronic displays, public art installations that combine visual art and text descriptions, etc.

Because of its relatively low production cost, easy maintenance, to meet the basic needs of urban management and commercial publicity, a total of 389 single-mode signs were observed in the sampling area, accounting for 98%, highlighting its dominant position. Specifically, 12 percent of attraction signage uses a white background with black bold typeface or boldface text, a choice designed to ensure intuitive and efficient message delivery through high-contrast color matching and legible fonts; Another 4% of the street signs and street signs are designed with white characters on a brown background, which reflects the traditional retro style and highlights the cultural heritage of Hekou County. At the same time, the contrast of colors enhances visual identification and helps pedestrians to quickly locate and navigate. For private signage, 77% of the sample chose red as the base color, and with white or yellow boldface text to highlight the message, red as a strong and vibrant color, can attract the attention of passers-by, while the high recognition of the boldface text ensures a clear message, which enhances the signage's message transmission ability. In addition, there are 7% of private signs using blue, green, gradient color and other more rich colors as the background color, and the use of italics, young circle and other diversified fonts for personalized design, these innovative elements not only enhance the artistic beauty of the sign, but also make it stand out in many commercial information, more attract the attention of the target audience.

It is worth noting that although only 4 cases of signs were collected to show the application of multimodal language landscape, it does not prevent multimodal language landscape from playing a unique role in information transmission and environment construction. In a commercial block with a riverfront landscape, a promotional video of the product is continuously played on the TV at the door of a jewelry store. This example not only reflects the visual presentation of the visual mode, but also integrates the sensory experience of the auditory mode, forming a dual information transmission effect of audio-visual combination. At the entrance of a building materials store near the National scenic spot, a van has become a carrier of multi-modal information dissemination. The body is covered by intensive advertising of building materials, cleverly combining images and text modes to visually display product information; At the same time, the loudspeaker mounted on the roof plays relevant information in a loop, further strengthening the application of

auditory modes, realizing the dual penetration of vision and hearing, and enhancing the dissemination of advertising. In addition to basic security notices and warning information, the rolling electronic screen equipped with a security kiosk also integrates diversified content such as weather forecasts and community announcements, which greatly improves the practicality and coverage of information through multi-modal presentation. By combining text, images and video clips, the electronic screen of a telecommunications company dynamically displays the latest business promotion, promotional activities and customer service information, effectively utilizes the rich expressive force of visual modes, and is supplemented by concise and clear text descriptions, which greatly enhances the attractiveness and dissemination efficiency of information and provides users with a more convenient and intuitive channel for obtaining information.

3.3. Emplacement

Emplacement not only focuses on the specific location of the text on the sign, but also explores the order and way of placing multiple codes, which can often subtly reflect the priority and status of different codes. According to the different placement strategies, it can be divided into three categories: situated placement, decontextualized placement and transgressive placement.

Situated placement is a typical feature of language landscape in Hekou County. Situated placement emphasizes the close integration of signs and physical space, and only when signs are properly placed in a specific environment, their abstract meaning can be transformed into concrete and tangible realistic value (Scollon & Scollon, 2003). In the sampling area, road signs, place signs and other official signs strictly follow the principle of situated placement. Road signs accurately point to intersections, and place signs closely fit their identified locations. These signs not only effectively play the role of guidance and reminder, but also enhance the sense of order and readability of urban space.

Warning signs and educational signs that promote excellent traditional Chinese culture and socialist culture with Chinese characteristics are typical decontextualized placement, and their content and actual meaning will not change depending on the location.

Transgressive placement is when a sign is in the wrong place. Hekou County's signs in the establishment of strict, and will be placed in accordance with the border port city quality rating standards, so under normal circumstances there will be no off-track placement of signs, after field investigation, the sampling area of official signs does not exist transgressive placement phenomenon.

3.4. Language Landscape Characteristics of Different Functional Areas in Hekou County

3.4.1. There is "Block Effect" in the Language Landscape of the Business District

The concept of "chunk" is derived from psychology and describes how different types of commercial logos can be presented as chunks, especially when they are more recognizable than other unofficial logos [7]. According to the statistics of the Ministry of Commerce of the People's Republic of China, textile and apparel is the field with the highest degree of interaction between the industrial chain and supply chain of China and Vietnam [8]. This trade exchange

not only promotes the circulation of commodities, but also directly drives the vigorous development of the shoe and apparel retail industry in the border area. Although there is competition between many shoe and clothing stores on the riverfront landscape of Hekou County, they can still gather together like blocks. Most of them are local shoe and clothing stores that have been operating for many years. These local shops resist the impact of globalization by virtue of long-term accumulated customer loyalty, and create stable business blocks with local characteristics, forming a series of language sign chains. It will promote the prosperity and development of border trade and become a bridge connecting the economy and culture of China and Vietnam.

3.4.2. The Language Landscape of the Administrative Region Highlights its Authority

Compared with the diversity of the business district, the language landscape signs of the administrative district show a more significant standardization and authority. The language landscape signs of administrative regions often integrate national symbolic elements, such as the national flag, the national emblem, etc., in order to highlight its official identity and authoritative status, not only reflects the administrative functions of the government, but also deeply conveys the laws and regulations of the country, policy guidance and social values. Educational signage has become an important window for the dissemination of excellent traditional Chinese culture and socialist culture with Chinese characteristics. Signs and banners to combat cross-border crimes mostly use white characters on a red background. The core information on these signs is usually located in large bold characters at the top of the sign, supplemented by non-verbal symbols closely related to the theme, forming a strong visual impact. The signs that spread Chinese culture are mostly red in color, cleverly integrating the elements of the seal, Chinese knot, fan and other symbols of the Chinese nation, which not only enriches the visual expression, but also deeply transmits the cultural essence and spiritual characteristics of the Chinese nation. In addition, the use of hard materials such as metal, which are durable and can be stored for a long time, further emphasizes the authority and lasting value of their content.

3.4.3. Landscape Characteristics of Language Landscape in Leisure and Cultural Areas

Taking Hekou Port Forest Park as an example, the language landscape content of Hekou County leisure and cultural area is diverse and rich, with signs such as park information introduction, management rules, warnings and flower introduction [7]. These signs are extensively integrated with drawings, photos, ICONS and other additional components, these visual elements and text messages complement each other, together to build a three-dimensional and vivid information communication system. For example, on signs indicating paths, with clear map illustrations; In the management rules class sign, the specific form of prohibited behavior is displayed through vivid images; On the warning signs, eye-catching ICONS are used to warn visitors of potential dangers. This kind of graphic design method not only enhances the intuitiveness and comprehensibility of information, but also makes the language landscape itself become an art installation to attract tourists' attention and promote cultural exchange.

To sum up, the language landscape of Hekou Port Forest Park successfully shows the landscape characteristics of the language landscape of the leisure and cultural area through

the diversity of font design and the richness of visual elements, which not only improves the cultural taste of the region, but also provides tourists with a more friendly and efficient information acquisition experience. In practice, language landscape is proved to be an important tool for urban cultural identity construction and spatial function optimization.

4. Discussion and Suggestions

4.1. Improve the Standardization and Accuracy of Language Translation

As a direct reflection of the image of the city, the quality of translation of public signs is crucial. However, through this survey, it is found that the language landscape in Hekou Port National Forest Park has problems at the translation level. Specifically, there is a wrong translation of "Other waste" on the trash bins in the park that meets the standard "Residual Waste", but there is also a wrong translation of "Residual Waste". The inconsistency of this translation may lead to the confusion of foreign tourists and damage the professionalism and unity of the city image. In addition, the warning sign "cherish life, do not play in the water" was translated as "water do not playing", which not only contains grammatical errors, but also fails to accurately convey the meaning of the original sentence, which undoubtedly brings obstacles to tourists' understanding and reflects the translator's lack of language ability. The emergence of these translation problems has exposed the shortcomings of Hekou County's language landscape in translation accuracy and standardization, and it is urgent for relevant departments and translators to improve their professionalism and strengthen translation quality control to ensure that public signs can accurately and clearly convey information, better serve tourists and citizens, and maintain the professionalism and internationalization of the city image.

4.2. Explore the Economic Value of Language Landscape and Enrich the Diversity of Codes

Language economics holds that language has economic value, and that its use and selection are based on cost benefits. For example, in a multilingual environment, the value of different languages depends on the frequency of use, the promotion of economic activities and the contribution to social development, which provides a theoretical basis for the optimization of language signs in Hekou County.

In the future optimization of the language landscape of Hekou County, the following strategies can be adopted: firstly, to enhance the economic benefits of multilingual signs, provide language service subsidies, create a multilingual tourism environment, and establish a multilingual information platform. The government has increased subsidies, giving production cost subsidies and tax incentives to businesses that use multilingual signs. Create a multilingual tourism environment, and set up multilingual signs and guides at tourist attractions, transportation hubs and other places to enhance tourist experience. Establish a multilingual information platform to integrate business, tourism, cultural and other information, so as to facilitate inquiries and exchanges between different language groups. Secondly, to protect ethnic minority languages, train multilingual talents, establish multilingual harmonious communities, and promote ethnic unity and harmonious multilingual development. Strengthen the protection of ethnic

minority languages and cultures, train multilingual talents to establish multilingual harmonious communities, organize multilingual cultural activities, enhance communication and understanding among different language groups, and jointly promote the process of Hekou County becoming a demonstration area of national unity. Thirdly, to encourage the development of cross-border e-commerce, provide policy support and platform construction for enterprises, so that they can realize the importance of multilingualism in the process of expanding the international market. Hold international exchange activities, such as international food festivals, cultural and art exhibitions, to attract people from home and abroad to participate and create an atmosphere of multilingual exchange.

At present, the "friendly" language pattern and the language environment of mutual respect and equality built by the border port cities between China and Vietnam not only promote the communication and integration between different language groups, but also indirectly create usable economic and social values. Therefore, the Chinese side should further tap and give full play to the economic potential of the language landscape to promote the economic prosperity and development of the border areas.

4.3. Strengthen the Awareness and Ability of Cross-border Language Services

According to Article 13 of the Law of the People's Republic of China on the Standard Chinese Language, "the public service industry shall adopt standardized Chinese characters as the basic service words." For the purpose of public services, signboards, advertisements, notices, signs, etc. that use foreign languages and use Chinese at the same time shall use standardized Chinese characters." In Hekou County, all bilingual/multilingual official signs, Chinese is dominant, and all use standardized Chinese characters, which fully reflects the implementation of the national language policy. With the construction and development of port cities in border areas, new language needs continue to emerge, and language consumption also increases. Therefore, the government, enterprises, education departments and other multiple entities should make joint efforts to provide diversified language services, including language planning services, language environment services, language consulting services, language information services and language competence enhancement services. By strengthening the awareness and capacity of cross-border language services, Hekou County can not only better meet the language needs of residents and tourists in the border areas, but also promote the exchanges and cooperation between China and Vietnam, and inject new vitality into the economic and social development of the border areas.

5. Conclusion

Based on the theoretical framework of place semiotics, this study reveals the diversity, complexity and dynamic characteristics of the language landscape in Hekou County through in-depth field investigation and analysis of the language landscape in the sample area. It is found that the language landscape of Hekou County shows the absolute advantage of Chinese in the orientation of code, and the existence of English as a strong foreign language also reflects its internationalization trend. Vietnamese language occupies a certain position because of the prosperity of Sino-

Vietnamese border trade and the frequent exchanges of border people, while the retention and use of French reflects the traces of history and culture. In the aspect of lettering, the single modal language landscape is dominant, but the innovative application of multimodal language landscape also adds a unique charm to the information transmission and environment construction. In terms of placement strategy, scene placement has become the mainstream, ensuring the close combination of signs and material space, and effectively playing its guiding and prompting role. In addition, the language landscape features of different functional areas are different, and the "block effect" of the business district, the authority of the administrative district and the landscape characteristics of the leisure and cultural district together constitute the rich and colorful language ecology of Hekou County. The language landscape of the border area is not only the core component of the language ability of the region, but also a mirror of its social, cultural and economic development. The language landscape of Hekou County not only reflects the cultural diversity and the complexity of language life, but also reflects the internationalization trend of the border area in the context of globalization and the importance of cross-cultural communication.

References

- [1] Ben-Rafael, E., Shohamy, E., Amara, M. H., & Trumper-Hecht, N. (2006). Linguistic landscape as symbolic construction of the public space: The case of Israel. *International Journal of Multilingualism*, 3(1), 7-33.
- [2] Backhaus, P. (2006). Multilingualism in Tokyo: A look into the linguistic landscape. *International Journal of Multilingualism*, 3 (1), 35-55.
- [3] Landry, R., & Bourhis, R. Y. (1997). Linguistic landscape and ethnolinguistic vitality: An empirical study. *Journal of Language and Social Psychology*, 16 (1), 23-49.
- [4] Scollon, R., & Scollon, S. W. (2003). *Discourses in place: Language in the material world*. London and New York: Routledge.
- [5] Shang, G.-W., & Zhao, S.-H. (2014). Perspectives, theories and methods of language landscape research. *Foreign Language Teaching and Research*, 2 (214-223).
- [6] Shang, G.-W., & Zhao, S.-H. (2014). The analytical dimension and theoretical construction of language landscape. *Foreign Languages (Journal of Shanghai International Studies University)*, 37 (6), 81-89.
- [7] Wu, X.-P. (2022). The linguistic landscape characteristics of Changchun Urban Park from the perspective of place semiotics. *Journal of Beihua University (Social Sciences Edition)*, 23 (4), 8-16+150.
- [8] Zhou, Y.-P. (2019). A study on the language landscape of Shangxia9 Pedestrian Street in Guangzhou. *Language Policy and Language Education*, 1 (18-30+116-117).
- [9] Meng, F.-B. (2019). Research on Chinese outdoor slogans at the China-Vietnam Border based on national image rhetoric. *Secretary*, 2 (16-22).
- [10] Bausarula, W. (2017). An analysis of language landscape in border areas: A case study of language landscape in Manzhouli. *Journal of Hulunbuir University*, 25 (4), 12-15.
- [11] Ligji. (2021). A survey of language landscape at border ports in Tibet under the Belt and Road Initiative: A case study of Pulan Port. *Journal of Xizang University (Social Sciences Edition)*, 36 (3), 209-215.