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A Study on the Translation of Station Names of Guangzhou Metro Lines through Functional Translation Theory

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Abstract: As the administrative and economic center of Guangdong Province, Guangzhou's urban image has a crucial role in shaping the city's image. Many foreign residents from all over the world live here, and the subway, as the main means of transportation in Guangzhou and a window to showcase the city's culture to both Chinese and foreigners, needs to be translated in a way that reflects the city's cultural heritage while providing clear and accurate travel information. Based on the theory of functional equivalence, this study analyzes the English translation of 226 station names for 11 existing subway lines that have been opened in Guangzhou. It analyzes the translation methods used, identifies problems in the translations of station names and proposes solutions to make subway translations more accurate, providing a certain reference for future translations of other unopened or opened subway station names.

Keywords: translation of subway station name; Guangzhou metro; functional equivalence theory

1. Introduction

At present, public signs in both Chinese and English are widely used in public facilities, and the names of bus stations and subway stations are equipped with Chinese and English translations and English broadcasts in Guangzhou. However, some incorrect translations of public signs have also been criticized by many people [1]. These incorrect translations not only affect the function of public signs, but also damage China's international image [2]. Among them, the name of the subway station serves as a window to showcase urban culture to both China and foreign countries, and is an indispensable part of people's daily lives. Its translation not only needs to reflect the culture of the city, but also provide clear and concise tourism information. And this has also prompted scholars from various fields to reflect on public signage and translated names [3].

However, despite the growing interest in the research on the translation of subway station names in recent years, most of the research mainly focuses on the northern part of China, with little focus on the southern part, especially in the Greater Bay Area. Therefore, from the perspective of functional equivalence theory, this study analyzes the translation principles of subway station names in Guangzhou's lines, corrects existing mistakes, and provides solutions to improve the translation of station names. Moreover, it will contribute to the accuracy of the translation, provide some reference for the translation of subway station names in the future and better improve the subway public language translation system.

2. Literature Review

2.1. Introduction to Functional Equivalence Theory

Functional equivalence theory was proposed by American linguist Eugene A. Nida in 1969. Nida is a famous structuralist linguist and an important linguist in his own right. He served as president of the Linguistic Society of America. In the process of bible translation, Nida developed his own translation theory based on reality, which eventually became one of the classics of translation studies [4]. The core concept of Nida's theory is functional equivalence. The so-called "functional equivalence" means that translation should achieve functional equivalence between two languages instead of rigid correspondence on the surface of words.

In order to establish a standard for the conversion between source language and target language and reduce the differences, Eugene A. Nida proposed the famous "dynamic equivalence" translation theory, namely "functional equivalence", from the perspective of linguistics and according to the nature of translation. In this theory, he pointed out that translation is to reproduce the information of the source language from semantics to style in the most appropriate, natural and equivalent language [5]. The equivalence in "dynamic equivalence" includes four aspects: lexical equivalence, syntactic equivalence, textual equivalence and stylistic equivalence. In these four aspects, Nida believes that meaning is the most important, and form is the second. The form may conceal the cultural meaning of the source language and hinder cultural communication. Therefore, in literary translation, according to Nida's theory, the translator should accurately reproduce the cultural connotation of the source language in the target language.

2.2. Steps of Functional Equivalence Theory

Translators can follow a three-step approach to effectively reproduce the culture of the source language while minimizing cultural discrepancies. First, the goal is to produce a translation that aligns with the original text's meaning, while also preserving its cultural essence. However, since languages represent distinct cultures with similarities but not exact equivalence, achieving a perfect translation that fully captures the source culture's nuances is unrealistic. Instead, the translator should aim to reproduce the culture as accurately as possible [6].

Second, when both meaning and cultural elements cannot be fully conveyed at once, the translator might need to prioritize meaning over formal equivalence, adjusting the structure of the source text in the target language to convey both aspects. Third, if structural changes still fall short in expressing the source culture and meaning, the technique known as "heavy blow" may be applied. This involves transforming the deep structure of the source language into the surface structure of the target language, allowing the cultural connotations of the source text to be explained using vocabulary that resonates with the target culture [7].

2.3. Related Studies

Public signage and its translation have always been the focus of linguists, with research ranging from tourist attraction shop signs to street slogans [8]. Chen and Hou analyze the current translation situation and translation problems of the Three Kingdoms Cultural Attractions in Jing Chu area in China. By taking the perspective of skopos' theory and communicative translation, they found that translation problems can be categorized into two parts: the part of linguistic level and the part of cultural level. Applying the same theory of Skopos, Zheng also investigated the English translation of public signs in scenic spots and identified the pragmatic problems in public signs in addition to linguistic problems and cultural problems [9]. However, besides the problems described above, researchers include Hu found that inappropriate wording and inconsistent translations also appeared as one the dominant problem in the translation of scenic spot [10].

Another researcher like LUO has shifted their focus towards the translation of English metro station names in China and criticized that the English translation of metro station names in Guangzhou and Foshan mainly relies on over-transliteration in Pinyin [11]. Zhao in his study of Changchun metro station name, however, acknowledged the role of Pinyin in the names of transport stations as he believed that Pinyin is a symbol of Chinese cultural elements. Based on the above research, this study further investigates the translation methods of subway lines [12]. Taking Guangzhou as an example, a detailed summary and comparison was made on the translation of station names of existing Guangzhou subway lines to explore their naming methods, existing problems, and potential solutions.

3. Findings and Discussion

3.1. Translation Method

In the English translation of 226 Guangzhou subway stations, four types of translation methods are summarized, namely transliteration, literal translation, free translation, and hybrid translation that mixes the first three methods. At the same time, after classifying and integrating the data, a classification table of each translation method is obtained as followed.

From the Table 1, it can be seen that most of the subway station translations in Guangzhou's subway lines are based on phonetic transliteration, accounting for 77.8%, followed by literal translation and free translation at about 7.9% and 5.4%, and finally mixed translation at about 8.9%.

Table 1. Classification of Translation Methods for Existing Line Stations in Guangzhou.

Line	Transliteration	Literal Translation	Free Translation	Hybrid Translation	Total
Total	176	18	12	20	226
Frequency	77.8%	7.9%	5.4%,	8.9%.	100%

3.1.1. Transliteration

Transliteration is one of the most common types of translation. In general, names, businesses, locations, and nation names are often translated via transliteration. In the translation of station names of Guangzhou subway stations, most of the station names adopt this translation method, because they cover a large number of specific place names, street names, area names, etc. For example, the place name "Yan Tang" of Line 3 is directly transliterated into "Yantang". Many place names such as Tianhe, Guangzhou, and Haizhu are also directly processed into transliterations because they all represent specific place names [13].

3.1.2. Literal Translation

Literal translation is a translation technique or style that preserves the original text's structure and substance. This translation method is very common in the translation of subway station names. It translates according to the literal form of Chinese, ensures the official wording and format, and gives direct information. For example, "Ke Xue Cheng Dong" on Line 7 is translated as "Science City East", and "Tian He Zhi Hui Cheng" station on Line 21 is also translated literally into "Tianhe Smart City" [14].

3.1.3. Free Translation

Free translation is the process of translating the source language's expanded meaning or substantive meaning into the target language in a way that is easy to grasp [15]. This translation method, according to Amenador and Wang, is extremely important in the translation of various public signs, because these signs must give accurate information in a concise form. This translation method is also reflected in the translation of Guangzhou subway stations [16]. For example, "Zhi Wu Yuan" is expanded and translated as "South China Botanical Garden" and "Shi Er Gong" on Line 2 is also translated as "The 2nd Workers' Cultural Palace". By adding more specific information and using the landmark buildings of the original stations as a model, these translations allow passengers to more intuitively understand where they are going.

3.1.4. Hybrid Translation

Among these subway station names, some of them use hybrid translation, that is, the combination of transliteration and free translation is used at the same time. This translation method accounts for only a small part of all station name translations. They may use pinyin in the first half and free translation in the second half. For example, "Chi Gang Ta" on Line 3 is translated as "Chigang Pagoda". "Chi Gang" is transliterated because it is a place name, while "Ta" is translated free, referring to a multi-story tower with multiple eaves. The first half of the place is transliterated, and only the second half is translated free.

3.2. Existing Problems

3.2.1. Over-Reliance on Transliteration

From the above table, we can see that the English translation of Guangzhou subway stations mainly relies on transliteration. Although transliteration carries the richness of vocabulary and promotes the development of local languages in cross-cultural communication, excessive reliance on transliteration will cause the translated content to lose its true meaning and the cultural region hidden behind it, causing misunderstanding, thus making the name of the subway station lose its guiding significance.

Taking "Ximenkou" on Metro Line 1 as an example, Ximenkou subway station represents the landscape area of Ximen. However, Xiimen is not a special place, but a common name based on the ancient name of Guangzhou people in Guangdong Province. It is named after the West gate of Guangzhou in the Ming and Qing dynasties. It can be seen from this that it cannot be translated directly by transliteration.

3.2.2. Inconsistent Translation Standards and Wording

From comparing these more than 200 station names, it is clear that some station names are not unified, which can be specifically divided into inconsistencies in translation standards and vocabulary. In terms of vocabulary, certain station station names with same word seems to have two English translations. For example, "Zhujiang Xin Cheng" on Line 5 and "Foshan Xincheng" on the Guangfo Line are translated as "Zhujiang New Town" and "Foshan Xincheng" respectively. It can be seen here that for the same "Xin Cheng", one station uses "new town" while the other uses transliteration "Xincheng".

From the perspective of translation standards, some station names do not use the same translation method, especially in terms of directions. Some station names such as "Ji Chang Bei", "Ke Xue Cheng Dong" and other station names with location indications of east, west, south are translated as "Airport North" and "Science City East". However, in some station names, these directions of east, south, west, and north are transliterated, such as "Chebei Nan" as Chebeinan, "Da Sha Dong" as Dashadong, "Shi Bi Dong" as Shibidong, etc. These examples show the non-standard translation of subway station names. The translation method for words of the same nature switches between free translation and transliteration, which may cause misunderstandings to passengers.

3.2.3. Wrong Translation Method

Due to over-reliance on transliteration, quite a few station names have been translated entirely using the transliteration method, but in fact, the free translation or hybrid translation method can better express the original meaning, such as station names involving iconic locations such as roads, villages or avenues. For example, the translator chose to transliterate the entire "Beijing Lu" on Line 6, so it was translated into "beijinglu". The most obvious example is "Tiyu West Road" on Line 1, which directly uses the full transliteration method and becomes "Tiyu Xilu". In this translation, not only is Tiyu Road not reflected, but the direction is also not specified. In addition, station names with "Dadao", such as "Bao Gang Da Dao" on Line 8 and "Bai Yun Da Dao" on Line 2, also use the pinyin "Dadao" instead of the word "avenue". Station names with the word "village" do not use the English word "village", but are replaced by the pinyin "cun", such as Fenghuang Xincun on Line 8 and Tancun on Line 5.

3.2.4. Incomplete Translation

In the translation of many subway station names in Guangzhou Metro, incomplete translation is also the most common problem, because the transliteration method based on pinyin and the hybrid translation method containing pinyin cannot specifically express the meaning of the place name. However, among all the translations, the free translation method, which should have explained the station name in detail, also has the phenomenon of incomplete translation meaning. The most obvious example is the Station "Dong Wu Yuan" on Metro Line 5, which is translated as "zoo". According to official information, it is named after the Guangzhou Zoo, a landmark building in Guangzhou. If it is directly translated into "zoo", it may not tell foreigner the hidden meaning behind its name, so it can be appropriately expanded to "Guangzhou Zoo".

3.3. Countermeasures and Application

Based on the above-mentioned translation methods and existing translation problems, this study will propose some solutions and methods, and modify some subway station names.

3.3.1. Translating the Real Meaning

Since the station names are all derived from local iconic cultural buildings, over-reliance on transliteration will result in the translated names not being able to truly reflect the cultural heritage behind them. Therefore, the English translations of these station names should be expanded and translated as much as possible to express and inherit the local cultural charm. Some modification examples are as follows in Table 2:

Table 2. Suggested translation for translating the real meaning.

Station Name in Chinese	Landmark Buildings	Original English Translation	Suggested Translation
Gong Yuan Qian	The front gate of People's Park	Gong Yuan Qian	People's Park
Xi Men Kou	The west gate of Guangzhou Old Town	Xi Men Kou	Ancient West Gate
Zu Miao	Foshan Ancestral Temple Museum	Zu Miao	The Ancestral Temple
Chang Shou Lu		Chang Shou Lu	Longevity Road

"Gong Yuan Qian" station is located in Tianhe District. This park is the People's Park known to all Guangzhou people. "Qian" means "front gate". But this familiar knowledge

is unfamiliar to outsiders and even foreigners. Therefore, it can be simplified into "People's Park", which can be simplified as much as possible on the premise of ensuring guidance.

"Xi Men Kou" station represents the Ximen Scenic Area. After investigation, Ximen is not a special place, but a common name based on the ancient name of Guangzhou people in Guangdong Province. It was named after the Guangzhou West Gate in the Ming and Qing Dynasties. It cannot be translated directly by transliteration. Since this place specifically refers to the old Guangzhou city gate, it can be changed to "Ancient West Gate".

"Zu Miao" station comes from its landmark building Foshan Zumiao Museum. It was historically referred to as "Zumiao", so the official translation of Zumiao can be used here, namely "The Ancestral Temple".

"Chang Shou Lu" subway station, originated from a road called Changshou Road. For this name, we can use free translation method, namely "Longevity Road".

3.3.2. Unifying Translation Method

Since there is a lack of uniformity in the translation of some words and translation methods in subway stations, the translation of some words and translation methods should be unified. The following Table 3 is about the inconsistent station name translations and modification suggestions.

Table 3. Suggested translation for unifying translation method.

Words	Station Name in Chinese	Translation Methods	Original English Translation	Suggested Translation
"New Town"	Zhujiang <u>New Town</u>	Free translation	New Town	Zhujiang New Town
	Foshan <u>Xin Cheng</u>	Transliteration	Xin Cheng	Foshan New Town
"Park"	Ji Hu <u>Park</u>	Free translation	Park	Ji Hu Park
	Mei Hua <u>Yuan</u>	Transliteration	Yuan	Mei Hua Park
"North"	Airport North	Free translation	North	Airport North
	Bai Yun Da Dao <u>Bei</u>	Transliteration	Bei	Baiyun Avenue North
"South"	Airport <u>South</u>	Free translation	South	Airport South
	Che Bei <u>Nan</u>	Transliteration	Nan	Chebei South

3.3.3. Using the Correct Vocabulary and Translation Method

The translation of several types of words needs to be modified and unified, see Table 4. For example, the translation of words with directions such as "south", "east", "west", "road", "avenue", "village", etc. should be changed from transliteration to translation to express their true meaning. Specifically:

Table 4. Suggested translation for using the correct vocabulary and translation method.

Words	Original Translation	Suggested Translation
Words indicating direction "west", "south" or "north"	Tiyue <u>Xilu</u>	<u>West</u> Sport Road
	Jiangnan <u>Xi</u>	Jiangnan <u>West</u>
	Jiangtai <u>Lu</u>	Jiangtai <u>Road</u>
	Keyun <u>Lu</u>	Keyun <u>Road</u>
Words with "avenue"	Baogang <u>Dadao</u>	Baogang <u>Avenue</u>
	Baiyun <u>Dadao</u>	Baiyun <u>Avenue</u> North
Words with "village"	Fang <u>Cun</u>	Fang <u>Village</u>

Fenghuang Xin <u>Cun</u>	Fenghuang New <u>Village</u>

3.3.4. Providing Complete Translation

Some station names lack their true meaning due to their direct reference to the Chinese meaning. Therefore, when translating, their translation should be appropriately expanded to provide a certain guiding role, see Table 5.

Table 5. Suggested translation for providing complete translation.

Station Name in Chinese	Landmark Buildings	Original English Translation	Suggested Translation
Dong Wu Yuan	Guangzhou Zoo	Zoo	Guangzhou Zoo

Since the original translation used literal translation, it did not directly point to any particular zoo. The meaning was too broad, so the name of the zoo it refers to can be directly used to expand the station name, namely "Guangzhou Zoo".

4. Conclusion

This study analyzes the English translation of the station names of 11 existing subway lines in Guangzhou through the theory of functional equivalence. Through the statistics and analysis of the translation of 226 station names, it is found that the translation methods of Guangzhou subway station names are mainly divided into four categories, namely transliteration, literal translation, free translation and mixed translation methods.

Among them, the findings of this research are consistent with those of LUO and Zhao, that is, the translation of subway station names is mainly based on transliteration. The second major method is literal translation, mixed translation and finally free translation. However, there are still many problems in the translation of some station names, such as inconsistent translation methods, inconsistent vocabulary, and the inability to truly express the meaning of the station name and the cultural connotation behind it.

At the same time, this study also puts forward modification suggestions for the translation of some station names, such as consistency in translation methods and vocabulary, appropriate usage of free translation and expansion of meaning, etc., in order to improve the accuracy of subway station names translation. However, this study does not deny the important role of transliteration in translation, because it is not only conducive to the translation of proper nouns, but also helps promote cultural output between different languages. The research results of this study are conducive to promoting the public's understanding of the translation method of subway station names and provide a certain reference for the current and future translation of subway station names or public slogans.

References

1. K. B. Amenador and Z. Wang, "A systematic review of the Chinese-English translation of public signs," *Sage Open*, vol. 12, no. 2, pp. 21582440221094611, 2022, doi: 10.1177/21582440221094611.
2. B. Saule and A. Aisulu, "Problems of translation theory and practice: original and translated text equivalence," *Procedia Soc. Behav. Sci.*, vol. 136, pp. 119-123, 2014, doi: 10.1016/j.sbspro.2014.05.300.
3. L. Zhang and Y. Guo, "A study on the English translation of public signs in Chinese destinations," *J. China Tour. Res.*, vol. 16, no. 2, pp. 248-260, 2020, doi: 10.1080/19388160.2019.1629367.
4. W. Kurniawati, A. D. Kartika, A. Ridwan, S. Sueb, and M. A. Asnur, "Linguistic equivalence in the translation of German and Indonesian prepositions: A case study on novels 'Herr der Diebe' and its Indonesian translation 'Pangeran Pencuri'," in *Int. Joint Conf. Arts Humanities 2024 (IJCAH 2024)*, Atlantis Press, 2025, pp. 1081-1090, doi: 10.2991/978-2-38476-317-7_105.
5. A. Al-Tarawneh, M. Al-Badawi, W. Abu Hatab, and A. H. Alhalalmeh, "Machine translation in light of the cultural turn," in *Intelligence-Driven Circular Economy: Regeneration Towards Sustainability and Social Responsibility—Volume 2*, Cham: Springer Nature Switzerland, 2025, pp. 517-523. ISBN: 9783031742194.
6. L. Yan, "The implications of new censorship theory: Conformity and resistance of subtitle translators in China," *J. Spec. Transl.*, no. 43, pp. 171-187, 2025, doi: 10.26034/cm.jostrans.2025.6950.

7. Q. Pi and L. Zhong, "Translation at work in climate change communication," *Sci. Commun.*, vol. 47, no. 2, pp. 309-315, 2025, doi: 10.1177/10755470241269914.

8. M. Haseeb, M. Akbar, and W. S. Abbasi, "Machine translation vs. human translation: A comparative study of translation quality," *Soc. Sci. Rev. Arch.*, vol. 3, no. 1, pp. 885-894, 2025, doi: 10.70670/sra.v3i1.375.

9. S. Zheng, "A study of the Chinese-English translation of public signs in scenic spots in Guangzhou from the perspective of Skopos Theory," *Theory Pract. Lang. Stud.*, vol. 11, no. 5, pp. 489-497, 2021, doi: 10.17507/tpls.1105.05.

10. X. Hu, Y. Niu, and X. Zhang, "Analysis of errors in English translation of public signs in Nanjing red tourist attractions and their countermeasures–Take Tuhuatai scenic spot as an example," *Int. J. Front. Sociol.*, vol. 3, no. 14, 2021, doi: 10.25236/IJFS.2021.031406.

11. J. F. P. de Chemellier and S. H. Chan, "'Don't forget to close the light!': ERP evidence for the facilitation of typical translation equivalents in bilingual processing," *Biling. Lang. Cogn.*, pp. 1-13, 2025, doi: 10.1017/S1366728925000227.

12. B. Y. Kang, "Unveiling Koreanness in Yoon Ha Lee's *Dragon Pearl*: Cultural representation and translation strategies," *Acta Linguist. Asiatica*, vol. 15, no. 1, pp. 153-176, 2025, doi: 10.4312/ala.15.1.153-176.

13. R. Jarrar, "Translating for Palestine as self-development: A translational perspective on human rights and international development," Ph.D. dissertation, Université d'Ottawa| University of Ottawa, 2025, doi: 10.20381/ruor-30826.

14. M. Wenner and A. Heidler, "Translating Fairtrade: Contact zones and discursive power in the global production network of certified Darjeeling tea," *J. Econ. Geogr.*, lbaf004, 2025, doi: 10.1093/jeg/lbaf004.

15. Á. Marín García, "Cultural mediators and distributed agency: The case of the publishing house Alfaguara (1976–1982)," *Trans.*, pp. 1-15, 2025, doi: 10.1080/13556509.2024.2432761.

16. J. Schritt and J. P. Voß, "Colonization, appropriation, commensuration: Three modes of translation," *Sociol. Rev.*, vol. 73, no. 1, pp. 196-215, 2025, doi: 10.1177/00380261231201475.