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Public Signs in Transport Stations

in Taipei and Kaohsiung: A Comparative Study



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摘要

本研究目的在於探討不同語言在台灣車站中公共標誌（亦稱作語言景觀）上的能見度。公共標誌是一個向旅客傳遞訊息的媒介。在全球化的影響之下，人們可以輕易地穿越國界因而使外籍旅客人數增加。當旅客抵達其他國家，第一個前往的場所經常是車站以便移動至觀光景點或是旅館。另外，英文是一個被廣泛使用的通用語言，不僅母語人士，他國人士也經常使用。因此，為了協助外籍旅客便利地遊覽台灣，在台灣車站的公共標誌上必須提供英文。基於檢驗車站中的公共標誌是否設置妥當之目的，本研究調查台灣兩個歷史悠久的直轄市，包含台北及高雄車站中的公共標誌。資料蒐集主要以田野調查的方式，親自前往研究現場使用相機記錄公共標誌，共收集了 2,174 個圖像做量與質的分析。量的分析著重在各語言及各項標誌功能出現的頻率，而質的分析進一步探討語言能見度與語言權力之間的相關性。研究結果顯示中文及英文的雙語呈現在車站公共標誌上的能見度為最高，亦顯現台灣的車站達到一定程度的國際化足以提供外籍旅客充足的協助及友善的環境。

關鍵詞：語言景觀、語言能見度、車站、台北、高雄、比較研究

ABSTRACT

This study aims to investigate the linguistic visibility of different languages on public signs in transport stations of Taiwan. Public signs are used as the medium to convey messages to visitors. Due to globalization, people could cross international borders easily which increase the number of foreign visitors. Visitors are most likely to first approach transport stations when they go to other countries for moving to tourist attractions or hotels. In addition, English is a lingua franca which is widely used by not only native speakers but people from other countries. Therefore, in order to help foreign visitors tour around Taiwan conveniently, Taiwan has to set up public signs in transport stations with English. With the purpose of investigating whether public signs in transport stations are well-organized and appropriate, the researcher pays her attention to the public signs displayed in the transport stations in the two earliest municipalities of Taiwan, which are Taipei and Kaohsiung. The data (photographs of public signs) are collected through fieldwork. Finally, 2,174 signs are photographed totally. Both qualitative and quantitative approaches are adopted to do further analysis. The main finding shows that Mandarin-English bilingual is the most frequent language presented on public signs of the selected research regions. It also implies that transport stations in Taiwan do reach a certain level of globalization that could provide foreign visitors sufficient help and friendly environment.

Key words: linguistic landscape, linguistic visibility, transport station, Taipei, Kaohsiung, comparative study

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CHAPTER ONE

INTRODUCTION

This chapter consists of three sections. The first section describes the background and motivation of this study. The second section provides the purposes, research questions and points out the significances of this study which are expected to be brought out. The third section provides the outline of this study.

1.1 Background and Motivation of the Study

Public sign, which is the same as linguistic landscape, could refer to “the language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration (Landry & Bourhis, 1997: 25).” It is a tool for people around the world to communicate with other people in the age of globalization. People usually can see a variety of languages displayed on shop signs, posters, or in graffiti when they walk around public spaces (Edelman, 2010). The investigation of public signs is relatively emerging compared with other research issues in sociolinguistic field. Many researchers have paid attention to the public signs displayed in countries around the world. Some of the researchers investigated the linguistic visibility of the native language and the lingua franca on signs in a chosen area (Backhaus, 2006; Lawrence, 2012; Singhasiri, 2013). Other researchers paid attention to the minority languages displayed on public signs in multilingual countries (Cenoz & Gorter, 2006; Barni & Bagna, 2010; Edelman, 2010). As the written texts and linguistic symbols presented on signs in public sphere, public signs are created as the medium to convey messages to visitors (Singhasiri, 2013). Due to globalization, people across international borders easily which increase the

number of foreign visitors. It is quite essential for countries around the world, including the setting of this study, Taiwan, to set signs in various languages in public spaces for the purpose of providing a friendly environment for foreign visitors and also help them tour around countries much easier. The linguistic visibility of multilingual signs should reach to a certain level for providing enough assistance for foreign passengers from various countries which indicates that public signs in Taiwan should be displayed in English.

English has been used as a lingua franca in the age of globalization. Most of the countries in the world use English for international communication and a medium of instruction in higher education. English is popular and widely-spread in the world. It is estimated by an online statistics portal, Statista, that there are over 1,500 million people in the world using or learning English (Cited from: <https://www.statista.com/statistics/266808/the-most-spoken-languages-worldwide/>).

Among the 1,500 million people, only 375 million of them are native speakers which indicates that English has been widely used in the world by not only English native speakers but people from other countries. Based on the function of English in a country, English could be categorized into a three centric circle of World Englishes, including the inner circle, the outer circle, and the expanding circle (Kachru, 1985). The inner circle of World Englishes comprises the United States, Canada, the United Kingdom, Ireland, Australia, and New Zealand. People in these countries use English as their first language. The outer circle of World Englishes contains a huge amount of countries where English is used as a second language and is often an official or semi-official language. The expanding circle of World Englishes is made up of most countries of the world where people use English as a foreign language. The three centric circle is shown in Figure 1.1. For countries in the outer or expanding circle of World Englishes, English there is considered as a useful and indispensable tool for

international contacts (Leech & Svartvik, 2006). In Taiwan, a country in the expanding circle of World Englishes, English is used as a foreign language. English is a lingua franca for people from various countries who don't share a common language to communicate with one another. Therefore, public signs in Taiwan have to be set up in English in order

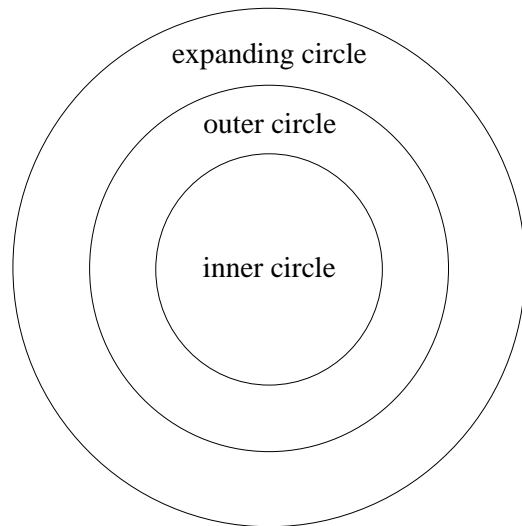


Figure 1.1 Three Concentric Circle of World Englishes

to provide a friendly environment for foreign visitors. Countries in the expanding circle of World Englishes are advised to set bilingual or even trilingual signs in public spaces for helping foreign visitors understand a country and facilitating cross-cultural communication (Zhu, 2012). Public signs in Taiwan should be displayed in the official language and English as well for foreign visitors to tour around Taiwan much conveniently.

When foreign passengers arrive Taiwan, transport stations are where they first approach for moving to hotels, tourist attractions, or another transport station. Due to the fact that passengers have a huge possibility to go to transport stations, it is crucial that the signs displayed at the transport stations should be clear and easily-understood enough for passengers to get efficient and precise instructions. Public signs in transport stations of Taiwan have to be displayed in English to help foreign visitors travel around Taiwan much easier. In other words, the languages displayed on public signs in transport stations have to be well-organized and appropriate for foreign visitors. Therefore, the linguistic visibility of multilingual signs in transport stations has to be investigated for examining whether transport stations in Taiwan provided well-organized and appropriate public signs for passengers from various countries.

However, little research on public signs in transport stations has been conducted in Taiwan. This study intends to do so.

For the purpose of this study, Taipei and Kaohsiung have been chosen for the investigation of public signs displayed in transport stations. As the two earliest municipalities and the political centers of northern and southern Taiwan respectively, both Taipei and Kaohsiung have been well-developed. They are equipped with international airports and well-known tourist attractions. Foreign visitors are most likely to approach these two cities when they arrive Taiwan. Taipei and Kaohsiung have to provide different languages of public signs in transport stations for foreign visitors to travel around the cities conveniently.

1.2 Purpose, Research Questions, and Significance of the Study

The purpose of this study is to investigate the linguistic visibility of multilingual signs in Taipei and Kaohsiung transport stations. The investigation of public signs is guided by the following research questions:

- 1) What is the visibility of languages in the linguistic landscape of Taipei and Kaohsiung transport stations?
- 2) What does the linguistic landscape of both Taipei and Kaohsiung transport stations reflect the relationships of the languages used by the speech community of Taiwan?
- 3) How does Taipei linguistic landscape differ from that in Kaohsiung?

As mentioned in the previous paragraph, little research on linguistic landscape has been conducted in transport stations in Taiwan. There should be more information and references about the visibility of public signs displayed in transport stations in Taiwan. This study is expected to have the following significances:

- 1) It will provide valuable insights for people in Taiwan, transport stations, and researchers on the visibility of languages in the linguistic landscape of Taipei and Kaohsiung transport stations,
- 2) It will function as a reference for transport stations when they establish or renew their linguistic landscape in the future, and
- 3) It will strengthen the theoretical foundation of linguistic landscape of Taiwan and function as a reference for other researchers to compare linguistic landscape in other settings.

1.3 Outline of the Study

In this study, Chapter One describes the research background of this study which provides the researcher's motivation of conducting this study and also points out the significances this study may contribute. Chapter Two provides the theoretical framework of this study which functions as the foundation for readers to understand the history and the importance of the research issue. Chapter Three provides the setting, the instruments, and how the data of this study are collected and analyzed. Chapter Four presents the findings of this study and discusses what may be the reasons lead to the setting conditions of public signs in transport stations of Taipei and Kaohsiung. Chapter Five provides the conclusion, limitations, and suggestions of this study which provides a summary of this study, points out the aspects that this study could be improved, and gives some suggestions for further research in the future.

CHAPTER TWO

LITERATURE REVIEW

This chapter contains five sections. The first section describes the definition of linguistic landscape and the function it carries. The second section provides previous studies which investigated the linguistic landscape in a specific domain. The third section describes linguistic landscape displayed in transport stations. The fourth section provides previous studies which investigated linguistic landscape in Taiwan and some description of linguistic landscape in Taiwan. The fifth section provides a brief summary of the previous studies mentioned in this chapter.

2.1 The Concept of Linguistic Landscape

“Linguistic landscape” is an emerging research issue which belongs to sociolinguistic field. Compared with other issues, studies on this issue are conducted relatively late. Studies on public signs were supposed to be first done by Fishman, Cooper, and Conrad in 1977. Signs displayed in English and Hebrew on streets in Jerusalem were investigated. At that time, “linguistic landscape” hasn’t been used as a terminology to refer to signs set in written texts or linguistic symbols. “Linguistic landscape” is first used as a terminology by Landry and Bourhis (1997: 23) who defined it as “the visibility and salience of languages on public and commercial signs.” As mentioned in Chapter One, linguistic landscape could refer to “the language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration (Landry & Bourhis, 1997: 25)”. It was also found that linguistic landscape could sometimes be called “linguistic cityscape” due to the fact that the number of signs is especially high in

shopping areas in cities (Gorter, 2006).

The definition of linguistic landscape provided by Landry and Bourhis was widely applied by most of researchers who investigate linguistic landscape in selected regions. However, the scope of linguistic landscape could differ from study to study. It was mentioned that linguistic landscape could refer to the signs inside as well as outside shops and businesses, for example, the advertisements received at home, the language heard in neighborhood, the signs displayed at school, and the language spoken by teacher in the classroom (Dailey, Giles, & Jansma, 2005). It was also mentioned that linguistic landscape could be defined as “any sign or announcement located outside or inside a public institution or a private business in a given geographical location (Ben-Rafael, Shohamy, Hasan Amara, & Trumper-Hecht, 2006).” Another study mentioned that the scope of linguistic landscape is broad which covers all displayed and interwoven “discourses,” including what is seen, heard, spoken, and thought (Shohamy & Waksman, 2009). Still other study mentioned that the types of linguistic landscape could be much wider because of technological developments which include electronic flat-panel displays, LED neon lights, foam boards, electronic message centers, and so forth (Gorter, 2013). In this study, the scope of linguistic landscape is defined as how Landry and Bourhis (1997: 25) defined: “the language of public road signs, advertising billboards, street names, place names, commercial shop signs, and public signs on government buildings combines to form the linguistic landscape of a given territory, region, or urban agglomeration” due to the fact that this definition covers most public signs displayed in transport stations including place names, street names, and shop signs. The various definitions of linguistic landscape are briefly shown in Table 2.1.

Table 2.1*The Definitions of Linguistic Landscape*

Year	Author	Definition
1997	Landry & Bourhis	The visibility and salience of languages on public and commercial signs, such as public road signs.
2005	Dailey et al.	The signs inside and outside shops and businesses, such as signs displayed at school.
2006	Ben-Rafael et al.	Any sign or announcement located outside or inside a public institution or a private business in a given geographical location
2009	Shohamy & Waksman	All displayed and interwoven “discourses,” such as texts and images.
2013	Gorter	Signs related to technological developments, such as LED neon lights and foam boards.

Linguistic landscape may equip informational or symbolic function as a marker of the relative power and status of the linguistic communities inhabiting the territory (Landry & Bourhis, 1997). In terms of the informational function, linguistic landscape could serve to inform both in-group and out-group members of the linguistic characteristics, territorial limits, and language boundaries of the region that members have entered. It was found that sometimes only the dominant language may be presented on outside public signs, while the weaker language is usually displayed with the dominant language together on signs inside private buildings. Linguistic landscape could be used as an indicator of the power and status which distinguishes between the dominant language and the weaker language (Landry & Bourhis, 1997). In terms of the symbolic function, linguistic landscape could imply that “public signs in the in-group language can also symbolize the vitality of the ethnolinguistic group in other institutional support domains such as cultural production and commercial and religious activities (Landry & Bourhis, 1997: 28).” Whether a language is present or absent on the linguistic landscape of a specific domain could symbolize the strength

and weakness of ethnolinguistic groups in the certain setting. Linguistic landscape carries crucial sociosymbolic importance as it actually identifies and thus serves as the emblem of societies, communities, and regions (Ben-Rafael et al., 2006). Linguistic landscape could provide information about the sociolinguistic context. Also, the languages presented on linguistic landscape could be used to compare with the official policy of a certain region. For instance, linguistic landscape set up by the official language policy may be top-down signs, such as street names or names of government buildings. In terms of linguistic landscape established by private institutes, it may be bottom-up signs, such as shop names or street posters (Ben-Rafael et al., 2006).

2.2 Previous Studies on Linguistic Landscape

Studies on linguistic landscape have been done from a variety of perspectives, including language policy, sociolinguistics, language contact and discourse analysis (Edelman, 2010). Publications on linguistic landscape also cover theoretical and empirical studies which deal with issues related to multilingualism, literacy, multimodality, language policy, linguistic diversity, and minority languages (Gorter, 2013)". Apart from the influence of the above issues, language usage on linguistic landscape is also affected by who presents the linguistic landscape. It was found that public signs set by government agencies are usually presented in official languages, while public signs set by private institutions are often displayed in a variety of languages (Edelman, 2010). Moreover, language usage on signs would be influenced by which type the product belongs to. For instance, products belong to technology, such as electronics and music sector, are mostly displayed in English. Also, public signs of shops or products associated with modernity, luxury, and youth were found to be most likely presented in English (Lawrence, 2012). Modernity includes cell phones and amusement parks; luxury includes hotels and wine; youth includes beer and

T-shirts. In terms of shops whose products are traditional medicine, traditional clothing, or local dishes, their signs are usually displayed in the native language. Moreover, the language used on signs were also found to be influenced according to whether they are independent or belong to international, national, or regional chains. For example, if the establishments belong to national chains, their signs tend to use more native language rather than English or other languages. Due to the fact that public signs carry informational and symbolic functions, it was found that over 30 countries and regional states have established laws to regulate their linguistic landscape (Leclerc, as cited in Landry & Bourhis, 1997). Studies on linguistic landscape have been carried out for decades.

Studies on linguistic landscape have been widely conducted in Europe and Asia. It was found that, for studies done in Europe (Cenoz & Gorter, 2006; Barni & Bagna, 2010; Edelman, 2010), most of researchers paid attention to the minority and immigrants languages on public signs. For example, the linguistic landscape in Friesland (Netherlands) and the Basque Country (Spain) were investigated and done further comparison in a previous study (Cenoz & Gorter, 2006). Two streets were observed in order to analyze the use of the minority language (Basque or Frisian), the state language (Spanish or Dutch), and English as an international language on signs. 975 pictures were totally collected. The results showed that the languages presented on signs would be influenced by the official language policy. For example, the minority language, Basque, has higher visibility on signs after some language policies are established to protect minority languages. Similarly, linguistic landscape presented in the urban regions where immigrants reside in Italy were investigated (Barni & Bagna, 2010). The selected urban regions consist of Rome, the capital, and also several small cities that immigrants chose to live. The immigrant languages in the selected areas were observed. It was found that the presence of a language, its vitality,

and its visibility have no direct relationship. Nonetheless, languages which have higher visibility are predicted to also have higher vitality. Thus, those languages are more likely to be maintained in the immigration regions. Furthermore, signs displayed in eight shopping areas in two sites of the Netherlands were investigated (Edelman, 2010). One of them is the capital and the largest city of the Netherlands, Amsterdam; the other is one of the twelve provinces of the Netherlands, Friesland. Among these two sites, 31 languages were used on signs. It was found that the language usage on the linguistic landscape in Amsterdam, as a city filled with immigrants, would be influenced by the amount of immigrants living around the shopping areas and the frequency of tourists using the language. In terms of the signs in Friesland, they were found that the percentage of minority languages is relatively small. From the previous studies investigated the public signs in Europe, it was found that the researchers mostly paid attention to the minority languages or immigrant languages displayed on public signs. The linguistic visibility of different languages on public signs would be influenced by language policies or immigrants who lived in the selected regions. Previous studies done on linguistic landscape of Europe are briefly shown in Table 2.2.

Table 2.2

Previous Studies on Linguistic Landscape in Europe

Year	Author	Investigation	Main findings
2006	Cenoz & Gorter	Minority languages and state languages used in Friesland and the Basque County	Languages on signs were influenced by the official language policy.
2010	Barni & Bagna	Immigrant languages used in Rome and several small cities immigrants live in	Languages with higher visibility are predicted to have higher vitality.
2010	Edelman	31 languages used in Amsterdam and Friesland	Languages on signs were influenced by the amount of immigrants and the frequency of using the language.

Different from the studies conducted in Europe, linguistic landscape studies in Asia mainly focused on the use of official languages, English, or foreign languages on public signs (Backhaus, 2006; Lawrence, 2012; Lai, 2013). For instance, the official and nonofficial languages displayed in 28 stations on one of the rapid transit system of Tokyo, Yamanote Line, were investigated (Backhaus, 2006). Yamanote Line passes by commercial district, shopping district, and residential district. The linguistic signs set there are categorized into setting by the government and by person. The study discussed the power of language and the relationship between language and society. It was found that signs displayed by the official were used to convey the existing power relations. In terms of nonofficial signs, they were presented in foreign languages for the sake of conveying information which were not related to Japanese. Similarly, the signs displayed in various districts of Korea, for example, Gangnam, Sadang, Ttukeseom, and so forth were investigated (Lawrence, 2012). Sociolinguistic theories, including social stratification, gravity, and cascade models were applied in the study to analyze the linguistic landscape set in the selected areas. Not only the three sociolinguistic theories were examined but the language used on public signs were observed. It was found that the gravity model wasn't accurate, while the social stratification and the cascade model were supported in the selected regions. Furthermore, the language used on public signs in Hong Kong were investigated (Lai, 2013). The study was conducted twelve years after the People's Republic of China (PRC) reclaimed sovereignty. A total of 1,160 visual signs in public spaces in four selected areas of Hong Kong were collected. The scope of research areas ranged from the heart of the city to a small town near the border with the PRC. It was found that Chinese and English are the two most dominant languages. Chinese is identified as a language whose status is getting higher and higher. It was also found that other foreign languages, including Japanese, French, and European languages are easily

discernable, embellishing, and enriching the cityscape of Hong Kong. From the previous studies mentioned above, it was implied that linguistic landscape studies in Asia mainly focused on the visibility of the official language and the lingua franca, English, displayed on public signs. Previous studies done on linguistic landscape of Asia are briefly shown in Table 2.3. Studies of linguistic landscape conducted in Europe and Asia show that linguistic landscape in almost every region and country has its significance which leads the government around the world to establish language policy or design signs in order to set indispensable languages on public signs.

Table 2.3

Previous Studies on Linguistic Landscape in Asia

Year	Author	Investigation	Main findings
2006	Backhaus	Official and nonofficial languages in 28 stations on a rapid transit system of Tokyo	Official signs convey the power relations. Nonofficial signs presented in foreign languages.
2012	Lawrence	English, Konglish, Korean, and Chinese used on signs in Korea	The percentage of English increased, while Korean decreased.
2013	Lai	Chinese and foreign languages set from the heart of the city to a small town in Hong Kong	Chinese and English are the most dominant. Foreign languages on signs could enrich the cityscape.

Studies on linguistic landscape are mostly done through ethnographic method (Huebner, 2006; Hult, 2009; Spolsky, 2009; Lawrence, 2012). Public signs are firstly photographed, categorized, and then analyzed further. Although the procedures of data collection and analysis are relatively uncomplicated, one of the problems that may be encountered is where to collect the data and how much data should be collected. Another problem that may be encountered is whether some types of data should be included, for example, texts on moving vehicles and posters that may be removed or

added (Gorter, 2006). Researchers have to give a clear description of the scope of the data in their studies.

2.3 Linguistic landscape in Transport Stations

For the previous study focused on the linguistic landscape set at transport stations, the signs displayed in the State Railway Station of Thailand (SRT) have been investigated (Singhasiri, 2013). The various language usage on public signs, especially English, was focused on due to the fact that English is needed in the globalization era for the SRT to communicate with passengers from foreign countries. The SRT took the objectives of the signs into consideration to decide which language would be used on the signs. For instance, a sign which informed the Thai senior citizens that they could get a 50 percent discount on a train ticket was written in only Thai because the sign is set up specifically for Thai senior people. Signs displayed at the SRT were found to have six types of functions which are a) Providing general information, b) Greetings and farewell messages, c) Giving directions, d) Warning, e) Prohibitions, and f) The SRT advertising. These six types were adjusted and then applied to the present study in order to investigate the condition of language usage in the transport stations of Taiwan. Due to the increase of foreign visitors, there is a necessity of setting multilingual public signs for foreign visitors to tour around Taiwan easily. Signs are used as a guidance which provide viewers a direction on how to get to a place (Backhaus, 2007). Therefore, multilingual signs should be offered in transport stations as clear and precise instructions that guide passengers to places they would like to go.

Another study focused on the linguistic landscape set in public transportation was conducted in Korea. The language used on public signs in subway system, buses, taxis, and roadways were investigated (Lawrence, 2012). It was found that English,

Korean, and Chinese are the three major languages presented on signs. The visibility of Korean is the highest in all the four transportation. In terms of English, it could be seen the most frequently in subway system, followed by taxis, roadways, and buses. As for Chinese, it has relatively lower visibility which is 20% and 10% in subway system and roadways respectively. The details of the visibility of different languages on signs in Korean public transportation are shown in Table 2.4. The two studies mentioned in this sections both photographed the signs in selected areas and then did further qualitative analysis. By contrast, the current study mainly analyzes data in quantitative way to investigate the visibility of languages and functions on signs in Taiwan transport stations.

Table 2.4

The Visibility of Languages in the Linguistic Landscape in Korean Public Transportation

Transportation	Korean	English	Chinese
Bus	95%	5%	0%
Taxi	80%	20%	0%
Roadway	75%	15%	10%
Subway	50%	30%	20%

2.4 Linguistic Landscape in Taiwan

In terms of Taiwan, a member of Asia and also the setting of the current study, the government tries its best to create a global environment for providing foreign passengers friendly surroundings. On the public signs in Taiwan, visitors could easily notice the two most frequent languages which are Mandarin and English. In terms of Mandarin which is the native language of Taiwan, it is the most crucial language and communicational tool. In terms of English, the lingua franca of the world, it was originally a mixed Romance language used for trade in the Mediterranean in the Middle Ages. Nowadays, English is a communicational tool around the globe. As

mentioned in Chapter One, an online statistics portal, Statista, estimated that around 1,500 million people in the world use or learn English. However, among the 1,500 million people, only 375 million of them are English native speakers which indicates that English is a world-wide language which spreads to almost every corner of the world and also has the importance of being displayed on signs in public spheres. In Taipei, the language usage on official linguistic landscape was found to be mostly bilingual which refer to the native language, Mandarin, and the lingua franca, English (Curtin, 2014). Street names and place names in official signs are presented in Mandarin, English, and Romanization. Official signs in airports, train, the MRT, and bus stations were also found to be displayed in bilingual. Setting signs in not only the primary language but English and other foreign languages did help visitors from various countries tour around Taiwan much more conveniently. For instance, in the “2010 Taipei International Flora Exposition,” the signs were presented with traditional characters, Romanization, English, and other international languages. The signs helped foreign visitors navigate Taipei much easily. Besides public signs, maps and brochures were presented with Arabic, English, Indonesian, Italian, Japanese, Korean, Portuguese, Russian, Spanish, Thai, Vietnamese, as well as simplified Chinese characters which provided foreign passengers lots of assistance (Curtin, 2014).

In addition to the public signs that function as the guidance for visitors in tourist attractions in Taipei, public signs in Taipei were also investigated from the perspective of the shift of national identity (Curtin, 2009). Public signs displayed in Taipei could be categorized into four categories, including (1) traditional Chinese characters, (2) European/US Romance languages, (3) Japanese and Korean, and (4) Romanization systems of Chinese. It was found that most of the public signs are presented in Mandarin with traditional Chinese characters since the Kuomintang (KMT), one of the main political parties of Taiwan, started to govern Taiwan and implemented

sinicization. The amount of signs displayed with European/US languages was also found to be increased due to international business or economic colonization by US corporations. Signs for McDonald's and Starbucks are salient examples. In terms of Japanese and Korean, their popular culture also has a strong influence on public signs in Taipei which makes some of the public signs in Taipei displayed in Japanese or Korean. Another reason that Japanese is used on public signs is because a quantity of elder people in Taiwan were educated under the Japanese regime which makes some public signs are written in Japanese. Public signs in Taiwan were also found to be displayed with three Romanization systems which are Wade-Giles, Hanyu, and Tongyong Pinyin. In Taipei, the official signage was displayed with Tongyong Pinyin when the city was governed by the DPP (Democratic Progressive Party) in 1990s. However, after the party alternation, the official signage in Taipei was presented in Hanyu Pinyin by the KMT.



For other research results of public signs in Taiwan, it was found that the minority languages of Taiwan, including Southern Min, Hakka, and aboriginal languages, are nearly invisible on public signs. Although Taiwan government has advocated preserving the minority languages by establishing language policy and building cultural parks, the public signs set in cultural parks are still mostly presented in Mandarin and English rather than with aboriginal languages or Hakka. It shows that the status and value of minority languages haven't been paid much attention to. One of the minority languages of Taiwan, the aboriginal languages, were found to be nearly extinct due to inappropriate language policies (Zhang, 1999). Taiwan government was advised to set up linguistic landscape with aboriginal languages in order to protect minority languages and also improve their visibility and status. Taiwan government still has a long way to go for preserving the minority languages. As mentioned in Chapter One, few studies paid attention to the linguistic landscape in

Taiwan, especially for those set in transport stations. This study which is going to investigate the signs in Taipei and Kaohsiung transport stations could fill the gap of literature.

2.5 Summary of this Chapter

Previous studies on linguistic landscape could be mainly divided into two categories based on the research regions of the study. In Europe, previous studies on linguistic landscape mainly paid attention to the immigrant languages and minority languages presented on public signs (Cenoz & Gorter, 2006; Barni & Bagna, 2010; Edelman, 2010). Cities in Europe may have immigrants from other regions who are protected by language policies. Therefore, the languages used by the immigrants have higher visibility on public signs. In terms of in Asia, due to the importance and influence of English in the age of globalization, the linguistic visibility of English on public signs is mainly investigated (Backhaus, 2006; Lawrence, 2012; Lai, 2013). It was also found that the languages presented on public signs would vary from where the signs are displayed as well as who sets up the signs and what products the shops sell.

Public signs established by the government agencies are most likely to be displayed in the official language. In terms of public signs set up by private institutions, they are usually presented in a variety of languages depending on the needs of private institutions. Languages on public signs would also be influenced by the types of products. On one hand, signs of products related to modernity, luxury, and youth are mostly presented in English. On the other hand, shops selling traditional medicine, traditional clothing, or local dishes have a big possibility of setting up signs in the native language.

CHAPTER THREE

METHODOLOGY

This chapter comprises three sections describing the methods used in this study. The first section describes the setting of this study and the reasons why the selected regions are chosen to be studied. The second section describes the research tools and research methods used in this study. The third section presents the procedures of how research materials are collected and analyzed in this study.

3.1 The Setting

The setting of this study is transport stations in Taipei and Kaohsiung. Taipei and Kaohsiung are the two earliest municipalities of Taiwan. Compared with other counties, municipalities are places where resources are mainly centralized and thus have higher competitiveness, visibility, and finances to provide citizens as well as visitors a more comfortable and friendlier environment. Taipei has been the capital of Taiwan since 1949 and the first municipality of Taiwan since 1967. It is the center of politics, economy, and culture. All of national level government agencies and embassies are set up at Taipei. This indicates that Taipei is a city not only for local people but foreigners to go for dealing with crucial affairs. Besides being the political center of Taiwan, Taipei has lots of well-known tourist attractions for travelers to visit. It is a city filled with monuments, museums, and the tallest building of Taiwan, Taipei 101, which are all worth of touring around. Furthermore, with Taipei Songshan Airport (臺北松山機場), Taipei is one of the cities that foreign passengers first approach when they arrive in Taiwan. As a city where passengers have a great opportunity to go for dealing with affairs and traveling around, Taipei should provide multilingual instructions in public spaces for passengers from different countries to easily go around Taipei.

Kaohsiung is the second municipality of Taiwan beginning in 1979. It is the center of political, economic, and transportation of southern Taiwan. Because of Kaohsiung International Airport (高雄國際航空站), Kaohsiung is one of the cities that foreign visitors are most likely to approach when arriving in Taiwan. Moreover, with a variety of monuments and shopping malls, Kaohsiung is a city where passengers regularly visit for sight-seeing and therefore has to provide multilingual public signs for foreign visitors to go around Kaohsiung much more conveniently.

Both Taipei and Kaohsiung were regarded as well-developed cities by the Globalization and World Cities (GaWC) Research Network. According to the updated ranking founded by the GaWC Research Network in 2012 (Cited from: <http://www.lboro.ac.uk/gawc/world2012t.html>) which categorized world cities into Alpha, Beta, and Gamma based on their international connectedness, Taipei ranked “Alpha-” while Kaohsiung ranked “sufficiency.” Taipei is considered as “a very important city that links major economic regions and states into the world economy,” while Kaohsiung is regarded as “not a world city but a city which has sufficient services without overtly depending on world cities.” As international cities, Taipei and Kaohsiung have sufficient resources and the ability to provide a much friendly environment for passengers from other countries. Due to the status and value of Taipei and Kaohsiung, multilingual public signs could be expected to be seen in transport stations of these two municipalities.

When foreign visitors arrive in Taipei or Kaohsiung, transport stations are the places where they frequently go for transferring to other regions. “Transport stations” could refer to airports, train stations, or rapid transit stations. They are equipped with transporting, commuting, or sight-seeing. In Taiwan, for transport stations that help passengers move a much longer distance in short time from county to county, “train station” and “high speed rail station” could be useful and helpful in contrast to other

public transportation because they are the two fastest land vehicles in Taiwan. For train station, in the nineteen administrative divisions on shore of Taiwan, all of them have at least a train station which indicates that it is an easy task for travelers to approach a train station in every county. In terms of high speed rail station, it is a transportation that makes passengers get to other counties in hours or even in minutes. Due to the characteristics of train station and high speed rail station, passengers could get to other regions in short time by taking these two kinds of public transportation. In addition, the train stations and high speed rail stations in both Taipei and Kaohsiung are quite near the MRT stations which makes the certain area become a transportation hub of the two cities. Because of the convenience the transport hubs provide, there is a huge possibility for travelers to make use of the transport stations. Thus, setting multilingual public signs in transport stations of Taipei and Kaohsiung is quite essential for offering foreign passengers efficient and useful instructions and helping them travel around the cities much easier. Based on the importance, the necessity of train stations and high speed rail stations, and also the status of Taipei and Kaohsiung, signs in four transport stations are investigated in this study including a) Taipei Train Station (台北車站), b) Taiwan High Speed Rail Taipei Station (台灣高鐵台北站), c) Xinzuoing Train Station (新左營車站), and d) Taiwan High Speed Rail Zuoying Station (台灣高鐵左營站).

Due to the disparity of northern and southern Taiwan, some differences of public signs may be discovered. According to the “Urban and Regional Development Statistics” developed by Council for Economic Planning and Development, Executive Yuan in 1998, the administrative districts of Taiwan were divided into four, which are northern Taiwan, central Taiwan, southern Taiwan, and eastern Taiwan. In terms of northern Taiwan, it has much higher density of population. People in northern Taiwan mostly speak Mandarin. In terms of southern Taiwan, which has relatively lower

density of population, there is a number of people using Southern Min. Therefore, Taipei, as the center of northern Taiwan, is considered as a city of globalization, while, Kaohsiung, as the center of southern Taiwan, is usually regarded as a city of localization. Due to this disparity, whether there are differences of public signs between Taipei and Kaohsiung transport stations is also one of the research points that will be paid attention to in this study. For example, the percentage of the languages presented on public signs, the functions public signs have, and the contents provided by the public signs in transport stations of the two municipalities. The four portions of Taiwan are shown in Figure 3.1.

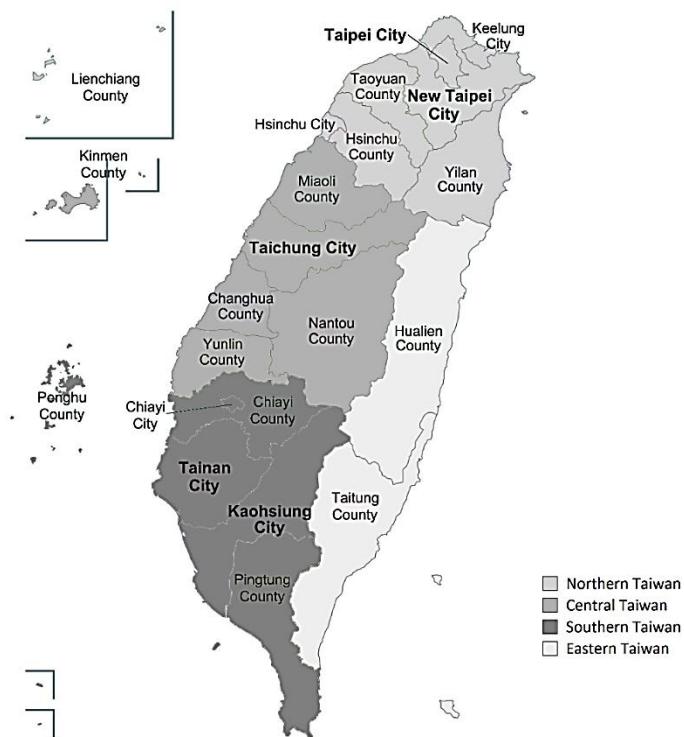
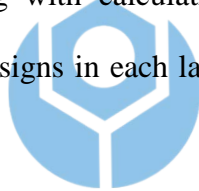


Figure 3.1 The Four Regions of Administrative Districts of Taiwan
 (Adapted from: https://simple.wikipedia.org/wiki/Republic_of_China)

3.2 Instruments

The research materials of this study are photos of public signs. They are collected through fieldwork, calculated with Microsoft Excel, and then analyzed further. “Fieldwork” refers to the gathering of anthropological or sociological data through firsthand observation. In this study, the researcher collects the data by going to the selected research regions.

During the fieldwork, the researcher uses a camera which is attached to her cell phone to photograph the public signs set in the four selected transport stations as her research materials. Besides, the researcher takes notes on her notebook while she notices some special signs or phenomenon that she will pay attention to later on. After gathering all the data, the researcher uses Microsoft Excel which was developed by Microsoft and capable of dealing with calculation and graphs to categorize and calculate the percentage of public signs in each language and functional category for further analysis.



3.3 Data Collection

This study begins from August 2016 to July 2017. The researcher investigates the public signs displayed in transport stations. She pays attention to the public signs presented in lobbies, shops, and restaurants to investigate the linguistic visibility of multilingual public signs.

After distinguishing the specialty of train stations and high speed rail stations and the status of Taipei and Kaohsiung, the researcher focuses on the public signs set at the ticketing lobbies, shops, and restaurants located in the four selected transport stations which are Taipei Train Station, Taiwan High Speed Rail Taipei Station, Xinzuoing Train Station, and Taiwan High Speed Rail Zuoying Station. She goes around the four selected areas and searches for all the public signs. After getting

familiar with the spaces and arrangements of public signs displayed in the four transport stations, she starts to photograph the signs with her camera by walking around all the areas. In addition, she records special things or phenomenon on her notebook which will be paid more attention later on in the procedures of data analysis. The procedures of data collection are shown in Figure 3.2.

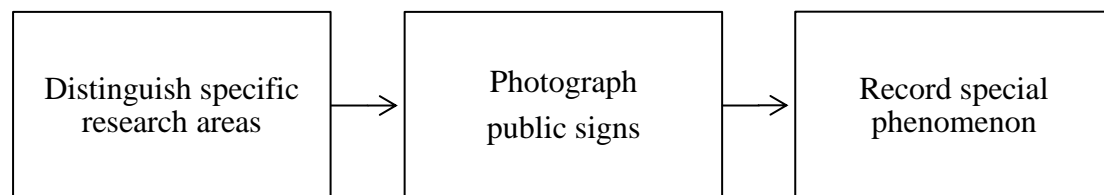


Figure 3.2 The Procedures of Data Collection

3.4 Data Analysis

After the data has been collected, the invalid data are deleted based on the criteria established by Lai (2013), who excluded signs in her study if (a) the sign was a duplication of another one in the same sample street (e.g. a second branch of the same chain shop displaying the same linguistic text e.g. 7-eleven). This avoids over-representation; (b) the sign was visually unclear or (c) the sign had no linguistic text or words of any sort. These criteria are chosen due to the fact that public signs with the same content may show up in transport stations for more than one time. Also, some of signs may be visually unclear or no linguistic text. The researcher adapts Lai's criteria and establishes renewed criteria for this study which are shown as follows (See Table 3.1.):

- 1) Duplication: Signs that set on the same device or facility with the same contents are considered as duplications and counted as one because these signs locate at the same place and convey the same information. However, signs with the same contents but set at different areas or sections are all taken into consideration and

counted due to the fact that these signs are provided for passengers come from various directions or go to different areas.

- 2) Visually unclear: Signs that couldn't be distinguished the contents they show are excluded in this study.
- 3) No linguistic text or words: Signs that include no linguistic text or words but only figures are excluded in this study due to the fact that they couldn't be divided into the five language categories of this study which are Mandarin only, English only, Mandarin-English bilingual, Mandarin-Romanization bilingual, and Others.
- 4) Print-outs for local people: Posters set mainly for local people are excluded in this study due to the fact that they are not essential when passengers use the service of transport stations, e.g. a dancing contest will be held soon. Nonetheless, posters set for tourists that announce information related to transport stations are included, e.g. the ticketing price has been raised, or the route has been changed.

Table 3.1

The Criteria of Public Signs Excluded or Included in this Study

Type	Excluded	Included
Duplication	Signs set on the same device or facility with the same contents.	Signs set at different areas or sections with the same contents.
Visually unclear	Signs that couldn't be distinguished the contents they show.	Signs set with clear and visible contents.
No linguistic text or words	Signs include no linguistic text or words.	Signs set with linguistic text or words.
Print-outs for local people	Prints-outs announce information related to local people	Print-outs announce information related to transport stations.

Note. Adapted from “The Linguistic Landscape of Hong Kong after the Change of Sovereignty,” by M. L. Lai, 2013, *International Journal of Multilingualism*. 10(3), 256

After all the invalid photos have been deleted, the necessary photos are divided into categories according to the languages they are presented in. Language categories are established based on Lawrence's study in 2012 which divided signs into English, Konglish, Korean, and Chinese. In this study, language categories include Mandarin only, English only, Mandarin-English bilingual, Mandarin-Romanization bilingual, and Others. The criterion of each language category is shown below:

- 1) Mandarin only: Public signs in the Mandarin only category are set in only Mandarin version (See Figure 3.3).



Figure 3.3 Sign Presented in Mandarin Only

- 2) English only: Public signs in the English only category are set in only English version (See Figure 3.4).



Figure 3.4 Sign Presented in English Only

- 3) Mandarin-English bilingual: Public signs in the Mandarin-English bilingual category are set in both Mandarin and English versions (See Figure 3.5).



Figure 3.5 Sign Presented in Mandarin-English Bilingual

- 4) Mandarin-Romanization bilingual: Public signs in the Mandarin-Romanization bilingual category are set in both Mandarin and Romanization versions (See Figure 3.6).



Figure 3.6 Sign Presented in Mandarin-Romanization Bilingual

- 5) Others: Public signs in the Others category are set in languages that couldn't be divided into any of the four above categories. For example, signs are set in more than two languages or signs are set in other foreign languages. Figure 3.7 shows a sign in the Other category which presented in Mandarin, English, and French.



Figure 3.7 Sign Presented in Other Languages

After the photos have been categorized into language categories, the photos are divided into categories based on the function they have. The functional categories of this study are adapted from Singhasiri's study in 2013 which has been mentioned in Chapter Two. Seven functional categories included in this study are a) General information provided, b) Greetings and farewell messages, c) Directions given, d) Warning, e) Prohibitions, f) Notices, and g) Recreation. The criterion of each functional category is shown below:

- 1) General information provided: Public signs in the General information provided category provide passengers with generic information. For instance, the name of a device, facility, room, or place. Besides, maps are included in this category instead of the Directions given category due to the fact that they present the whole picture or a part of an area instead of only the directions to some places.
- 2) Greetings and farewell messages: Public signs in the Greetings and farewell messages category welcome or say goodbye to passengers.
- 3) Directions given: Public signs in the Directions given category serve as the instructions for passengers to go to some places. In this study, the signs included in this category are usually equipped with arrows which point out the exact direction for passengers' destinations. As mentioned in the previous paragraph, maps are excluded from this category but included in the General information

provided category because they display the whole picture or a part of an area rather than only the directions to some places.

- 4) **Warning:** Public signs in the Warning category warn about or remind of passengers some things related to their safety in order to prevent passengers from danger. For instance, “Stand Firm” and “Hold Handrail” set on the sides of escalators.
- 5) **Prohibitions:** Public signs in the Prohibitions category notice passengers about some things they are prohibited to do in the certain areas. For example, “No climbing,” “No Smoking,” and “No Entry.”
- 6) **Notices:** Public signs in the Notices category announce events specifically for passengers. For instance, “Items Regulation onboard THSR (Taiwan High Speed Rail) Trains” and “THSR Ticket Sales & Extra Train Services for New Year Holidays” are displayed to inform passengers some updated information about the stations.
- 7) **Recreation:** Public signs in the Recreation category set at the shops or restaurants as shop names or restaurant names.

When all the categorizations are finished, the percentages of each language and functional category are calculated with Microsoft Excel. The percentage of each category will be compared with one another in order to investigate which language category could be frequently seen on public signs in transport stations and also which functional category most public signs have. In addition, due to the disparity between northern Taiwan and southern Taiwan, the results of Taipei and Kaohsiung are compared with each other in order to examine whether there are any differences of public signage in these two municipalities. The procedures of data analysis are presented in Figure 3.8.

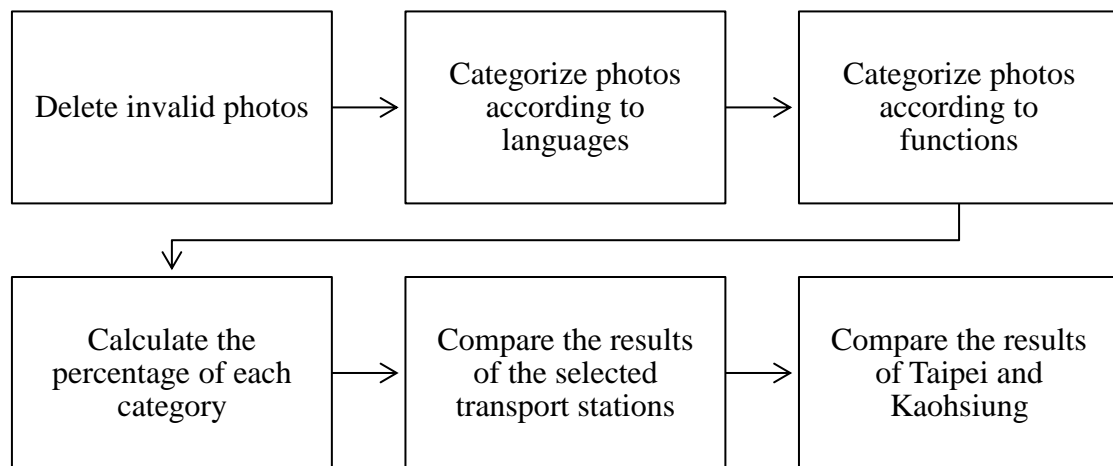


Figure 3.8 The Procedures of Data Analysis

Finally, 2,174 signs have been photographed. 1,357 of them were collected in Taipei transport stations, and the other 817 of them were collected in Kaohsiung transport stations. The findings and further discussion will be given more descriptions in Chapter Four.



CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter contains three sections discussing the results of this study. The first section provides the visibility of languages in the linguistic landscape and the functions of the languages in the linguistic landscape of Taipei and Kaohsiung transport stations. The second section mainly discusses the significance brought by the results of this study. The third section provides a summary of this chapter.

4.1 Results

4.1.1 Visibility of Languages in Linguistic Landscape of Transport Stations

After all the photos have been analyzed, it was found that 2,174 signs were photographed in Taipei and Kaohsiung transport stations. Taipei transport stations include Taipei Train Station and Taiwan High Speed Rail Taipei Station; Kaohsiung transport stations include Xinzuoing Train Station and Taiwan High Speed Rail Zuoying Station. Among the 2,174 signs, 1,357 of them are gathered from Taipei transport stations, and 817 of them are gathered from Kaohsiung transport stations.

In Taipei transport stations, 73% of the signs were displayed bilingually in Mandarin and English, 12% in Mandarin-Romanization bilingual, 12% in Mandarin only, 3% in English only, and 1% in other languages. For signs presented in other languages, which are categorized into the Others category in this study, the researcher hypothesized that the languages used would contain a variety of foreign languages. However, it was found that 11 out of 13 were presented in Japanese, which shows that Japanese is the most frequent foreign language presented in this category.

In terms of the signs in Kaohsiung transport stations, 80% of the photos taken showed signs displayed bilingually in Mandarin and English, 13% in Mandarin only,

5% in Mandarin-Romanization bilingual, 1% in English only, and 1% in other languages. For signs presented in other languages, 10 out of 12 were presented in Japanese. This shows that, compared with other foreign languages, Japanese is the most frequent language displayed in this category. The details of the languages used on public signage of Taipei and Kaohsiung transport stations are shown in Table 4.1.

Table 4.1

The Visibility of Languages in the Linguistic Landscape of Taipei and Kaohsiung Transport Stations

Place	Mandarin only	English only	M-E bilingual	M-R bilingual	Others	Total
Taipei	12% (158)	3% (42)	73% (985)	12% (159)	1% (13)	1,357
Kaohsiung	13% (105)	1% (8)	80% (650)	5% (42)	1% (12)	817

Note. M=Mandarin, E=English, R=Romanization.

The above findings show that most public signs at both Taipei and Kaohsiung transport stations are displayed bilingually in Mandarin and English. The visibility of Mandarin-English bilingual signs is much higher than other languages. In addition, in both Taipei and Kaohsiung transport stations, Japanese is the most frequently occurring foreign language on public signs. It was also found that if Mandarin-Romanization bilingual signs were counted as Mandarin-English bilingual signs, the visibility of bilingual signs in Taipei and Kaohsiung transport stations would have reached a total of 85%. However, the percentage of Mandarin-English bilingual signage in Kaohsiung (80%) is higher than that in Taipei (73%). This implies that public signs in Kaohsiung transport stations use more Mandarin-English bilingual displays than Taipei transport stations.

4.1.2 Frequency of Functions of Linguistic Landscape in Transport Stations

Signs in transport stations could be equipped with a variety of functions (Singhasiri, 2013). Based on the data collected in Taipei and Kaohsiung transport stations, functions of the signs could be categorized into seven categories, including (1) General information provided, (2) Greetings and farewell messages, (3) Directions given, (4) Warning, (5) Prohibitions, (6) Notices, and (7) Recreation. The examples of the seven functions are shown from Figure 4.1 to Figure 4.8.



Figure 4.1 Sign Equipped with General information provided



Figure 4.2 Sign Equipped with Greetings and farewell messages



Figure 4.3 Sign Equipped with Directions given



Figure 4.4 Sign Equipped with Warning



Figure 4.5 Sign Equipped with Prohibitions



Figure 4.6 Sign Equipped with Notices



Figure 4.7 Sign Equipped with Recreation

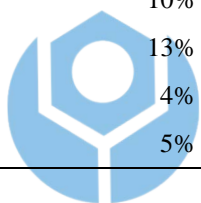
In Taipei transport stations, it was found that among 1,357 signs, the most frequently occurring function of signs is Directions given (43%), followed by General information provided (21%), Prohibitions (13%), Warning (10%), Recreation (5%), Notices (4%), and Greetings and farewell messages (3%). Directions given and General information provided are the two major functions that signs are equipped with in Taipei transport stations. In terms of signage in Kaohsiung transport stations, it was found that among the 817 signs, the most frequently occurring function of signs was General information provided (30%), followed by Directions given (29%),

Prohibitions (15%), Warning (14%), Recreation (7%), Notices (4%), and Greetings and farewell messages (0.1%). General information provided and Directions given are two major functions that signs have in Kaohsiung transport stations which are the same as Taipei transport stations. The above findings show that signs in Taipei and Kaohsiung transport stations mainly perform informative and directive functions. The details of the numbers of each function are shown in Table 4.2.

Table 4.2

The Frequency of Functions of the Linguistic Landscape in Taipei and Kaohsiung Transport Stations

Function	Taipei	Kaohsiung
1. General information provided	21% (291)	30% (246)
2. Greetings and farewell	3% (40)	0.1% (1)
3. Directions given	43% (584)	29% (240)
4. Warning	10% (140)	14% (117)
5. Prohibitions	13% (174)	15% (124)
6. Notices	4% (56)	4% (31)
7. Recreation	5% (72)	7% (58)



4.1.3 Frequency of Language-Use Functions

As mentioned in Chapter Three, the language used on the linguistic landscape of Taipei and Kaohsiung transport stations would be various due to different functions. In Taipei transport stations, among the seven functions, 5 of them are mostly expressed bilingually in Mandarin and English, including: General information provided, Greetings and farewell messages, Directions given, Warning, and Prohibitions. By contrast, the languages used for the remaining 2 functions, which are Notices and Recreation, is different. The language used on Notices is mostly Mandarin only with 80% (See Figure 4.8). In terms of the languages used on the signs categorized under Recreation, the percentage of the five language categories has insignificant differences and is quite similar to one another.

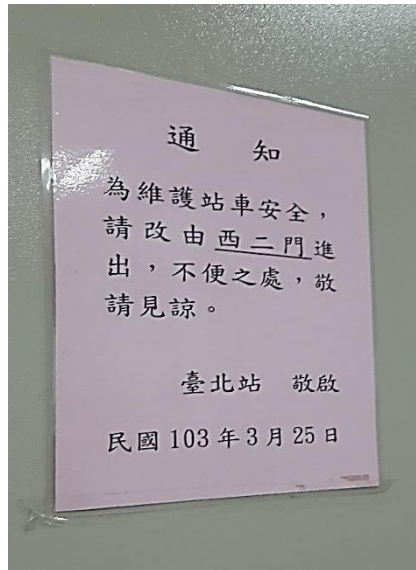


Figure 4.8 Notices Usually Displayed in Mandarin only

In terms of Kaohsiung transport stations, the language used on different functions is like the language used in Taipei transport stations. Most of the functions are presented in Mandarin-English bilingual displays, including General information provided, Directions given, Warning, and Prohibitions. By contrast, the language used for the remaining 2 functions in Kaohsiung transport stations is different from that in Taipei transport stations. The languages used on Notices and Recreation have two major forms which are Mandarin only and Mandarin-English bilingual. As for Greetings and farewell messages, there was only 1 sign equipped with this function, and it is presented in Mandarin only; the language used for this function also varied from that in Taipei transport stations which is expressed bilingually in Mandarin and English. The details of the frequency of language-use functions in Taipei and Kaohsiung transport stations are shown in Table 4.3.

Table 4.3

The Frequency of Language-Use Functions of the Linguistic Landscape in Taipei and Kaohsiung Transport Stations

Function	Place	Mandarin only	English only	M-E Bilingual	M-R bilingual	Others	Total
General information provided	T	8% (24)	0.3% (1)	91% (265)	0% (0)	0.3% (1)	291
	K	13% (31)	0% (0)	79% (195)	7% (18)	1% (2)	246
Greetings and farewell	T	0% (0)	0% (0)	100% (40)	0% (0)	0% (0)	40
	K	100% (1)	0% (0)	0% (0)	0% (0)	0% (0)	1
Directions given	T	7% (40)	4% (25)	64% (375)	25% (144)	0% (0)	584
	K	12% (29)	0.4% (1)	78% (186)	10% (24)	0% (0)	240
Warning	T	6% (8)	0% (0)	94% (132)	0% (0)	0% (0)	140
	K	2% (2)	0% (0)	98% (115)	0% (0)	0% (0)	117
Prohibitions	T	17% (30)	0% (0)	82% (143)	0% (0)	1% (1)	174
	K	8% (10)	0% (0)	92% (114)	0% (0)	0% (0)	124
Notices	T	80% (45)	0% (0)	20% (11)	0% (0)	0% (0)	56
	K	42% (13)	0% (0)	58% (18)	0% (0)	0% (0)	31
Recreation	T	15% (11)	22% (16)	26% (19)	21% (15)	15% (11)	72
	K	33% (19)	12% (7)	38% (22)	0% (0)	17% (10)	58

Note. T= Taipei, K=Kaohsiung, M=Mandarin, E=English, R=Romanization.

It was also found that the public signs presented in Mandarin-Romanization bilingual are mostly equipped with Directions given (see Figure 4.9). Due to the fact that a number of signs in the four selected transport stations give directions to roads, streets, or places whose names are regularly used only in Taiwan, the contents on those signs are usually presented in Mandarin-Romanization bilingual in order to allow people from other countries to understand their meanings.



Figure 4.9 Sign Displayed in Mandarin-Romanization Bilingual

4.2 Discussion

This section discusses the results of the study, which are arranged to answer the three research questions: (1) What is the visibility of languages in the linguistic landscape of Taipei and Kaohsiung transport stations? (2) What does the linguistic landscape of both Taipei and Kaohsiung transport stations reflect the relationships of the languages used by the speech community of Taiwan? (3) How does Taipei linguistic landscape differ from that in Kaohsiung?

4.2.1 Research Question 1: The visibility of languages in the linguistic landscape of Taipei and Kaohsiung transport stations

Based on the previous analysis done in Chapter Three, it was found that the percentage of Mandarin-English bilingual public signs of both Taipei and Kaohsiung transport stations were the highest. In other words, Mandarin-English bilingual displays have the highest visibility on public signs. People frequently see this language form when they go around the four selected transport stations. The high visibility of Mandarin-English bilingual signage shows that Mandarin and English are both actively used in Taiwan. With the high visibility of Mandarin-English bilingual

in public spaces, people who do not understand Mandarin are able to get sufficient assistance and tour around conveniently.

Although the percentage of Mandarin-English bilingual text on signs is the highest of all the five language categories, there are some signs with specific functions that are presented in Mandarin only, such as Notices. Of all the seven functional categories, Notices varies from other functions. In Taipei transport stations, the percentage of Mandarin only (80%) is much higher than the percentage of Mandarin-English bilingual text (20%). As for in Kaohsiung transport stations, the percentage of Mandarin only (42%) is close to the percentage of Mandarin-English bilingual text (58%). These findings of the language used on Notices imply that although transport stations do their utmost to help people from other countries move around smoothly in Taiwan, there are times when sudden notifications cannot be offered in time. Notices, which usually provide the latest information and have to be posted in a short time, is mostly presented with the language that people in Taiwan are familiar with the most. For this reason, Notices are usually presented in Mandarin only.

In addition to Notices, the language used with signs categorized under Recreation is different from other functions. Due to the fact that the signs of stores or restaurants are regularly set by store owners or employees, the language used on the signs varies depending on what impression stores or restaurants want to convey to customers. The percentage of 5 language categories has slight differences. It was also found that, among the other languages found on the signs categorized under Recreation in the four selected transport stations, Japanese appears the most which is 21 out of 25 (See Figure 4.10). This shows that Japanese, compared with other foreign languages, is used relatively actively and has higher visibility in public spaces of Taiwan.



Figure 4.10 Sign Displayed in Japanese

4.2.2 Research Question 2: The linguistic landscape of Taipei and Kaohsiung transport stations reflects the relationships of the languages used by the speech community of Taiwan

Findings in the previous sections show that Mandarin-English bilingual and Mandarin only are the two major languages expressed in the linguistic landscape of both Taipei and Kaohsiung transport stations. They could be seen almost everywhere in public spaces. In addition to these two languages, there are actually some other languages used by other speech communities in Taiwan, for instance, Southern Min, Hakka, aboriginal languages, and immigrant languages. However, these languages were not found in Taipei and Kaohsiung transport stations even if some of them are spoken by a significant amount of people in Taiwan, such as Southern Min.

Southern Min is spoken by 75% of Taiwan's population (Hong, 2013). With such a large population, this language is supposed to have high visibility in public spaces. However, the findings in previous sections show that the visibility of Southern Min in the linguistic landscape of Taipei and Kaohsiung transport stations is nearly none even though there are so many people using Southern Min. This implies that public signage could convey information to viewers efficiently even if there is no Southern Min

presented in public spaces. The status of Southern Min in Taiwan is relatively lower than the status of Mandarin-English bilingual and Mandarin only. Southern Min, as an ethnic language, is usually used in the domain of family instead of in the domain of formal and public spaces (Chen, 2010). This language in Taiwan is a weakened language which does not function well in public and is not given nor is it used as an instructional language in public spaces. All these findings imply that the speech community of Mandarin-English bilingual and Mandarin only has higher language power than the speech community of Southern Min and other speech communities.

4.2.3 Research Question 3: The differences between Taipei and Kaohsiung linguistic landscape

The language used on public signs in Taipei and Kaohsiung transport stations actually has little difference among language categories. The previous analysis shows that Mandarin-English bilingual signs are the majority, and the percentage of Mandarin only, English only, and Others is quite close in Taipei and Kaohsiung. There are two main reasons. First of all, as mentioned in Chapter Three, Taipei and Kaohsiung are both international cities of Taiwan. They provide both local people and foreign passengers with sufficient help and a friendly environment. The signs displayed in public spaces of Taiwan are mainly presented in not only the native language but also the lingua franca for people from everywhere to understand the meanings. Secondly, train stations and high speed rail stations in Taiwan have their own systems. Train stations in Taiwan are governed by Taiwan Railways (台灣鐵路), and high speed rail stations are governed by Taiwan High Speed Rail (台灣高鐵). The public signs in stations are set by their own systems respectively. Therefore, signs in train stations and high speed rail stations are set by top-down policy. It implies that, in

Taipei and Kaohsiung, the visibility of different languages on public signs may have little difference due to the fact that they are set by the same system.

Nonetheless, for signs presented in Mandarin-Romanization bilingual text, there are some findings that are worth mentioning. In Taiwan, signs in Taipei are mostly presented in Hanyu Pinyin, which is the official Romanization system of Mainland China. In terms of signs in Kaohsiung, they are regularly presented in Tongyong Pinyin, which is the official Romanization system of Taiwan between 2002 and 2008. There are various opinions regarding these two Romanization systems. On one hand, people who support Hanyu Pinyin think Taiwan has to be connected with the globe due to the fact that Hanyu Pinyin is used not only in Mainland China but in most of other regions using Chinese characters, such as Singapore, Malaysia, and Philippine. On the other hand, those in support of Tongyong Pinyin think there are several words specifically used by some speech communities of Taiwan, like Southern Min, Hakka, that could be presented in Tongyong Pinyin; therefore, Taiwan has to create its own Romanization system to retain Taiwan's characteristics. Because of these continued arguments, the Romanization used on public signage is not consistent in the whole of Taiwan. In this study, for the signs displayed in Mandarin-Romanization bilingual text in Taipei and Kaohsiung transport stations, the findings in previous sections show that not all follow the patterns of the Romanization used in Taipei and Kaohsiung. In details, some signs in Taipei transport stations are set in Hanyu Pinyin, for instance, 忠孝西路 is set in "Zhongxiao W. Rd." which is match to the patterns (See Figure 4.11).



Figure 4.11 Sign Displayed in Hanyu Pinyin in Taipei Transport Stations

However, in Kaohsiung transport stations, the Romanization on public signs is not always presented based on Tongyong Pinyin. It was found that the Romanization displayed on signs is Hanyu Pinyin which is the same as that in Taipei transport stations. For example, 站前北路 is presented in “Zhanqian N. Rd. (Hanyu Pinyin)” instead of “Jhancian N. Rd. (Tongyong Pinyin).” (See Figure 4.12). This finding could correspond to the previous findings that train stations and high speed rail stations in Taiwan are governed by the same system. The language used on signs are displayed by top-down policy which makes the languages used on signs in Taipei and Kaohsiung transport stations have little difference.



Figure 4.12 Sign Displayed in Hanyu Pinyin in Kaohsiung Transport Stations

4.3 Summary of this Chapter

This chapter discusses the languages used on public signs and the functions that public signs are equipped with. Based on the previous findings, it is obvious that most of the public signs in Taipei and Kaohsiung transport stations are written in Mandarin-English bilingual. This implies that the frequency of Mandarin-English bilingual is the highest, and its power of in Taiwan is relatively bigger than other languages. In terms of the functions of signs, most of public signs in Taipei and Kaohsiung transport stations were found to be equipped with General information provided and Directions given. Based on the language used on signs and the functions that signs are equipped with, most of the public signs in Taipei and Kaohsiung were found to have slight differences.



CHAPTER FIVE

CONCLUSION

This chapter consists of three sections. The first section provides the summary of findings of this study. The second section discusses the implications of findings. The third section points out the limitation of this study and gives some suggestions for further research.

5.1 Summary of this Study

This study aims to investigate the linguistic visibility of different languages on public signs in transport stations of Taiwan. The functions that public signs equipped with are also discussed in this study.

In terms of the visibility of languages on public signs, it was found that Mandarin-English bilingual and Mandarin only have higher frequency on public signs of Taipei and Kaohsiung transport stations. By contrast, the visibility of ethnic languages (e.g. Southern Min, Hakka) is nearly none. This shows that, first, the language power of Mandarin-English bilingual and Mandarin only in Taiwan is far higher than other languages. Second, the ethnic languages in Taiwan are weakened languages that couldn't be used as functional languages in public spaces. This also implies that the power of the speech community using Mandarin and English is bigger than those using ethnic languages.

In terms of the functions that public signs equipped with, it was found that public signs in both Taipei and Kaohsiung transport stations have two major functions, including General information provided and Directions given. In addition, for the frequency of language-use on functions, it was found that most of the functions are presented in Mandarin-English bilingual except Notices, Recreation, and some

Directions given. In details, Notices sometimes are presented in Mandarin only, which is the language that people in Taiwan are familiar with the most, due to the fact that they provide the latest information and have to be posted as soon as possible. Signs categorized under Recreation are usually designed by the stores/restaurants owners or employees in order to convey their impression to customers; the visibility of different languages on this function has slight differences. Directions given with road names or place names are mostly expressed in Mandarin-Romanization bilingual to help foreign visitors understand or call them

After all the analysis have been done, the differences between the public signs in Taipei and Kaohsiung are also discussed. It was found that Taipei and Kaohsiung have little differences on the visibility of signs presented in Mandarin-English bilingual, Mandarin only, English only, and other foreign languages. In terms of the signs displayed in Mandarin-Romanization bilingual, it was found that most of the signs in Taipei and Kaohsiung are both displayed in Hanyu Pinyin instead of using Hanyu Pinyin in Taipei and Tongyong Pinyin in Kaohsiung.

In short, Mandarin-English bilingual and Mandarin only are the two major language forms that presented in the linguistic landscape of Taipei and Kaohsiung transport stations. The frequency of language usage is related to the language power of the language which implies that, in contrast to languages used by other speech communities, the language power of Mandarin-English bilingual and Mandarin only is much bigger in Taiwan.

5.2 Implications

The findings of the language used on public signs found in Taipei and Kaohsiung transport stations imply that the transport stations of Taiwan have reached a certain level of globalization. In both Taipei and Kaohsiung transport stations,

Mandarin-English bilingual is widely used in the linguistic landscape. Also, Mandarin-Romanization bilingual displayed on public signs does have a certain percentage. These two kinds of written texts are presented on signs specially for foreign passengers to easily understand the information provided by the linguistic landscape in public spaces and know how to call the road names and place names that specifically used in Taiwan. In Taiwan, people mostly use Mandarin as a communicational language. People could not only convey but receive information through Mandarin in their daily lives. However, the percentage of Mandarin-English bilingual in the linguistic landscape of transport stations is so high. It is even far higher than the percentage of Mandarin only. This implies that transport stations in Taiwan take foreign passengers into consideration. They provide foreign passengers the convenience of traveling around Taiwan.

With Mandarin-English bilingual and Mandarin-Romanization bilingual signs, transport stations in Taiwan offer foreigners a friendly environment and sufficient assistance so that foreigners may face less difficulties when traveling. If foreigners get lost, they could solve their problems with the assistance provided by public signs even though local people couldn't help them efficiently. Based on the language used on the linguistic landscape, it was found that Taipei and Kaohsiung do reach a certain level of globalization and offer foreign visitors enough help. Foreign visitors could move smoothly to where they would like to go by following the instructions provided by the linguistic landscape in public spaces of Taipei and Kaohsiung.

5.3 Limitation and Suggestions

There is one main limitation of this study which is the research region. Research regions of this study consist of four selected transport stations, which are Taipei Transport Station, Taiwan High Speed Rail Taipei Station, Xinzuoing Train Station,

and Taiwan High Speed Rail Zuoying Station. Due to the fact that only the linguistic landscape in the four transport stations of two cities were investigated, the findings of this study couldn't apply to other transport stations in other cities, which may display different patterns of linguistic signs.

Due to the limitation of research region, it is suggested to do research on transport stations in other cities of Taiwan. The signs in transport stations in almost every city of Taiwan have to be observed for the purpose of examining how further transport stations in Taiwan reach globalized, and investigating the relationship between languages and speech communities of Taiwan. There is also another suggestion. According to previous findings, the languages used on public signs of Taipei and Kaohsiung transport stations are mostly Mandarin-English bilingual. This implies that transport stations in Taiwan do provide foreign visitors sufficient instructions. However, there are few findings of the use of Taiwan ethnic languages on signs, such as Southern Min or Hakka. It is suggested to do further research on signs presented in ethnic languages in some places, such as communities or villages, in order to gather more data of the use of the ethnic languages on signs in Taiwan and obtain other valuable findings.

REFERENCES

- Backhaus, P. (2006). Multilingualism in Tokyo: A look into the linguistic landscape. *International Journal of Multilingualism*, 3(1), 52-66.
- Backhaus, P. (2007). *Linguistic landscapes: A comparative study of urban multilingualism in Tokyo*, 136. Multilingual matters.
- Barni, M. & Bagna, C. (2010). Linguistic landscape and language vitality. In E. Shohamy, E. Ben-Rafael, & M. Barni (Eds.), *Linguistic landscape in the city*, (pp. 3-18). Bristol, Buffalo, Toronto: Multilingual Matters.
- 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. In D. Gorter (Eds.), *Linguistic landscape: A new approach to multilingualism*, (pp. 7-30). Bristol, Buffalo, Toronto: Multilingual Matters.
- Cenoz, J., & Gorter, D. (2006). Linguistic landscape and minority languages. *International Journal of Multilingualism*, 3(1), 67-80.
- Chen, S. C. (2010). Multilingualism in Taiwan. *International Journal of the Sociology of Language*, 2010(205), 79-104.
- Council for Economic Planning and Development. (1998). Urban and Regional Development Statistics. Retrieved from <http://statistic.ngis.org.tw/Document/pdf/87.pdf>
- Curtin, M. (2009). Indexical signs, identities and the linguistic landscape of Taipei. In E. Shohamy & D. Gorter (Eds.), *Linguistic landscape: Expanding the scenery*, (pp. 221-237). New York, NY & London: Routledge.
- Curtin, M. (2014). Mapping cosmopolitanisms in Taipei: Toward a theorisation of cosmopolitanism in linguistic landscape research. *International Journal of the Sociology of Language*, 2014(228), 153-177.

- Dailey, R. M., Giles, H., & Jansma, L. L. (2005). Language attitudes in an Anglo-Hispanic context: The role of the linguistic landscape. *Language & Communication, 25*(1), 27-38.
- Edelman, L. J. (2010). *Linguistic landscapes in the Netherlands: A study of multilingualism in Amsterdam and Friesland*. Utrecht, Netherlands: LOT GaWC. The world according to GaWC 2012. Retrieved from <http://www.lboro.ac.uk/gawc/world2012t.html>
- Gorter, D. (2006). *Linguistic landscape: A new approach to multilingualism*. Bristol, Buffalo, Toronto: Multilingual Matters.
- Gorter, D. (2013). Linguistic landscapes in a multilingual world. *Annual Review of Applied Linguistics, 33*, 190-212.
- Gorter, D. & Cenoz, J. (2014). Linguistic landscapes inside multilingual schools. In B. Spolsky, O. Inbar-Lourie, & M. Tannenbaum (Eds.), *Challenges for language education and policy: Making space for people*, (pp. 151-169). Routledge.
- Hong, W. R. (2013). Taiwan de yu zhong fen bu yu fen qu [Language distribution and division in Taiwan]. *Language and Linguistics, 14*(2), 315-369.
- Huebner, T. (2006). Bangkok's linguistic landscapes: Environmental print, codemixing and language change. In D. Gorter (Eds.), *Linguistic landscape: A new approach to multilingualism*, (pp. 31-51). Multilingual Matters.
- Hult, F. (2009). Language ecology and linguistic landscape analysis. In E. Shohamy & D. Gorter (Eds.), *Linguistic landscape: Expanding the scenery*, (pp. 88-104). New York, NY & London: Routledge.
- Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the outer circle. In R. Quirk & H. G. Widdowson (Eds.), *English in the world: Teaching and learning the language and literatures*, (pp. 11-30). The British Council.

- Lai, M. L. (2013). The linguistic landscape of Hong Kong after the change of sovereignty. *International Journal of Multilingualism* 10(3), 251-272.
- Landry, R. & Bourhis, R. Y. (1997). Linguistic landscape and ethnolinguistic vitality: An empirical study. *Journal of Language and Social Psychology*, 16(1), 23-49.
- Lawrence, C. B. (2012). The Korean English linguistic landscape. *World Englishes*, 31(1), 70-92.
- Leech, G. N., & Svartvik, J. (2006). *English: One tongue, many voices*. Palgrave Macmillan.
- Moser, M. (2013). The fall of the Iron Curtain and the new linguistic landscape of East-Central Europe. In P. I. Barta (Eds.) *The fall of the Iron Curtain and the culture of Europe*, (pp. 104-117). Routledge.
- Shohamy, E., & Gorter, D. (2009). *Linguistic landscape: Expanding the scenery*. New York, NY & London: Routledge.
- Shohamy, E. G., Rafael, E. B., & Barni, M. (2010). Linguistic landscape in the city. *Multilingual Matters*.
- Shohamy, E., & Waksman, S. (2009). Linguistic landscape as an ecological arena: Modalities, meanings, negotiations, education. In E. Shohamy & D. Gorter (Eds.), *Linguistic landscape: Expanding the scenery*, (pp. 313-331). New York, NY & London: Routledge.
- Singhasiri, W. (2013, July). Linguistic landscape in the state railway station of Thailand: The analysis of the use of language. Paper presented at The European Conference on Language Learning 2013, Brighton, UK.
- Spolsky, B. (2009). Prolegomena to a sociolinguistic theory of public signage. In E. Shohamy & D. Gorter (Eds.), *Linguistic landscape: Expanding the scenery*, (pp. 25-39). New York, NY & London: Routledge.

Statista. The most spoken languages worldwide (speakers and native speaker in millions). Retrieved from <https://www.statista.com/statistics/266808/the-most-spoken-languages-worldwide/>

The four regions of administrative districts of Taiwan. Retrieved from https://simple.wikipedia.org/wiki/Republic_of_China

Zhang, X. Q. (1999). Yu yan jing guan yu yu yan bao cun gui hua [Linguistic landscape and language preservation planning]. *Guo li taidong shi yuan xue bao*, 10, 155-172.

Zhong, R. F. (2002). Tai wan yu yan zheng ce yu shi ji yu yong de xian kuang [The current situation of language policy and practical pragmatics in Taiwan]. *Ke jia gong gong xing zheng yan tao hui*.

Zhu, J. F. (2012). On the translation of public signs from the functional perspective. *Sino-US English Teaching*, 9(6), 1246-1252.

