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Urban Language Practices in a UNESCO World Heritage Site: A Case Study of George Town, Penang

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Abstract
The case of multilingual and multicultural George Town World Heritage Site (GTWHS) illustrates that language practices among its urban community are varied across different settings and interlocutors. The study aims to identify current language practices in GTWHS, particularly those influenced by urban space and repertoires. Using a mixed-method research design, the study included a sample size of 156 respondents and covered areas in both the Core and Buffer Zones of George Town, Penang. Data analysis then comprises discussions on language repertoires of the interlocutors within the domains of the respective social interactions. Findings of the study show that the use of English, Malay, Mandarin and code-switching are several of the patterns of language use that can be observed in the city. The ability to style shift among the respondents is also indicative of language patterns that interact with both the physical and social settings that they belong to. As a result, these language practices can be fluid in order to facilitate the needs of the communicative activities as the interlocutors relocate themselves in different spaces or domains within the George Town city. More importantly, the study highlights heterogenous populace, linguistic repertoire and cultural practices as determinants that further characterise the overall cityscape of urban social environment and its speech community.

Keywords: George Town, language practices, settings, urban space, repertoires

1. Introduction

1.1.Background to the Study

1.1.1. Early History of George Town, Penang

The British presence in Malaya (modern-day Malaysia) began in the late 18th century when the British East India Company, led by Francis Light, established the first British settlement at Penaga Point (now Padang Kota Lama) on July 17, 1786 (Ooi, 2015). This marked the end of Dutch sovereignty on the peninsula, and Light founded George Town, named after King George III, transforming it into a bustling free-port city and a major trading post in the Straits of Malacca (Badaruddin, Abooali & Shida, 2012; Ooi, 2015; PPC, n.d.). The isle, named Prince of Wales Island (now part of Penang), saw a significant influx of merchants and traders from around the world, leading to a diverse population and the formation of various ethnic enclaves (Ooi, 2015). Malay settlements existed on the island and Province Wellesley (now

Seberang Perai) before Light's arrival (Ooi, 2015). Penang later became part of the Federation of Malaya in 1948 and Malaysia in 1963, with George Town officially granted city status on January 1, 1957 (PGT, n.d.).

1.1.2. George Town as World Heritage Site (WHS)

George Town was officially listed as a UNESCO World Heritage Site (WHS) on July 7, 2008, recognised for its "Outstanding Universal Value (OUV) of cultural diversity embodied in both living and built heritage" (GTWHI, n.d.). This honour, shared with Malacca, highlights their rich multicultural heritage, earning them the title "Historic Cities of the Straits of Malacca" (Rohayah, 2019, p. 9). UNESCO (n.d.) cites both cities as exemplary models of "living multicultural heritage and tradition in Asia." George Town met three of UNESCO's criteria: its role as a multicultural trading town (criterion ii), its representation of multicultural heritage (criterion iii), and its unique architectural and cultural townscape (criterion iv) (UNESCO, n.d.).

The George Town World Heritage Site (GTWHS) covers 259.42 hectares, divided into a 109.38-hectare Core Zone, preserving over 1,700 heritage buildings, and a 150.04-hectare Buffer Zone, protecting the Core Zone through controlled development (PGT, n.d.). Together, these zones encompass 5,013 heritage buildings that reflect generations of diversity in George Town (UNESCO, n.d.).

Today, George Town continues to modernise while preserving its architectural and cultural legacies. For example, Jalan Masjid Kapitan Keling, once a settlement for the Indian Muslim Chulia community, is now home to various places of worship, including the Kapitan Keling Mosque, the Goddess of Mercy Temple, St. George's Church, and Sri Maha Mariamman Temple, earning it the name "Street of Harmony" (PGT, n.d.). This coexistence offers a rich mix of cultural experiences and language practices.

1.1.3. Sociolinguistic Landscape of GTWHS

In Penang, diverse sociolinguistic backgrounds are evident through the coexistence of various communities, including Chinese Peranakans (Baba-Nyonyas) (Filmer, 2020; Goh, 2014), Jawi Peranakans (Jawi Pekan) (Goh, 2014; Hajar, 2015; Hong, 2015), Arab Peranakans (GTWHI, 2013; Pue, 2016), Malays (Ooi, 2015), Indian Muslims (Hoogervorst, 2015; GTWHI, 2013), and Eurasians (Ramachandran et al., 2017). Smaller subgroups like other Chinese dialect speakers (Ong & Selim, 2020), expatriates (Awang Rozaimie, 2013), and Japanese retirees (Siti Hamin et al., 2013) have also influenced evolving language practices in modern-day George Town World Heritage Site (GTWHS).

The Chinese Peranakans, the largest Chinese subgroup in Penang, speak a localised version of Hokkien known as Baba Hokkien, which incorporates Malay elements and has evolved into Penang Hokkien (Ng & Muhammad Shahrim, 2016; Churchman, 2021; Ong, 2018). Other Chinese languages, like Cantonese, Hakka, and Teochew, are also spoken (Ong, 2018).

The Jawi Peranakans, a hybrid Malay community resulting from intermarriages between Indian Muslims and local Malays, primarily speak Malay and Tanjong language, a Malay-Tamil hybrid dialect (Hajar, 2015; Merican, 2018). Unlike the Jawi Peranakans, the Indian Muslim community mainly speaks Tamil or other mother tongues (Hong, 2015), and outnumber the Arab-speaking communities (GTWHI, 2013).

Given Penang's colonial history, English remains prevalent, particularly among the Eurasian community, who often switch between multiple languages, including English, Malay, Mandarin, Tamil, Hokkien, and Portuguese (Ramachandran et al., 2017). These sociolinguistic dynamics in GTWHS showcase the coexistence of multiple languages and dialects in daily interactions.

1.2.Research Objectives

The research objectives for this study are as follows:

1. To identify the metrolingual practices in George Town World Heritage Site.
2. To determine the individual and spatial repertoires in metrolingual practices of the urban community in George Town World Heritage Site.
3. To analyse how urban space, repertoires and mobility influence metrolingual practices in George Town World Heritage Site.

1.3.Research Questions

The research questions for this study are as follows:

1. What are the metrolingual practices in George Town World Heritage Site?
2. What are the individual and spatial repertoires in metrolingual practices of the urban community in George Town World Heritage Site?
3. How do urban space, repertoires and mobility influence metrolingual practices in George Town World Heritage Site?

2. Literature review

2.1.Language Practices and the City

2.1.1. The Notion of Metrolingualism

Metrolingualism emerges from the need to move beyond traditional views of language phenomena, such as monolingualism or code-switching, to better capture the multiplicity and hybridity of urban environments (Otsuji & Pennycook, 2010; Yao, 2021). It examines how human interactions in local contexts use available semiotic resources, intertwining language, culture, ethnicity, and geography (Yao, 2021). While focusing on urban landscapes, metrolingual practices can also apply to rural settings (Otsuji & Pennycook, 2010), reflecting the hybrid and superdiverse spaces created by globalisation (Arnaut et al., 2015; Creese & Blackledge, 2018).

Pennycook and Otsuji (2015) argue that all cities are multilingual to some extent, with diversity evident in commercial, social, and cultural interactions. Metrolingualism highlights how urban environments shape language practices and vice versa, extending beyond educational contexts to focus on the integration of linguistic and semiotic resources across different spaces and times (Otsuji & Pennycook, 2021). It also considers the role of objects and activities in meaning-making (Pennycook, 2017, as cited in Yao, 2021).

In this study, metrolingualism aligns with Canagarajah's (2013) translingualism, centring on daily language use and how people navigate city life (Pennycook & Otsuji, 2015). It acknowledges the fluidity of languages, which can be fused, adopted, or abandoned across contexts, and how these practices are influenced by social and economic factors (Pennycook & Otsuji, 2015). Ultimately, metrolingualism explores how meaning-making varies across different urban spaces, shaped by people's multilingual resources, actions, and movements (Otsuji & Pennycook, 2021).

2.1.2. Metrolingual Practices and Urban Space

Dovchin and Pennycook (2018) highlight that metrolingualism focuses on urban spaces—both physical and social—rather than on the individual linguistic repertoires of language users. These language practices bring time and space to life in specific places (Pennycook & Otsuji, 2015). Van Aalst and Nortier (2018) add that meanings, practices, and identities are tied to particular spaces, which shape communicative events and language use in real-life situations. Breckner et al. (2013) further note that language facilitates

social and cultural practices within urban spaces.

In this study, urban space is viewed as an evolving social space, observable through its physical, symbolic, regulatory, and social aspects, with an emphasis on the interplay of multiple functions (Breckner et al., 2013). As cities undergo rapid urbanisation, cultural and linguistic diversity grows, particularly in central areas (Pennycook & Otsuji, 2015; Breckner et al., 2013). Thus, urban space represents a dynamic collection of events that work in synergy (Ladouce et al., 2010).

2.1.3. Metrolingual Practices and Repertoires

Pennycook (2010) suggests that how people use language is influenced by their understanding of the specific place they are in and the communicative activities they engage in there. Each space, whether physical, institutional, social, or cultural, shapes language use differently (Busch, 2015). These spaces contain their own language systems, where linguistic resources from users' repertoires are evaluated and utilised (Blommaert & Backus, 2013).

Yao (2021) refers to these resources as "spatial repertoires," which are semiotic resources shaped by recurrent metrolingual practices within a particular space. These repertoires work alongside internalised linguistic resources—languages, dialects, and styles—that guide everyday interactions (Busch, 2015). Unlike linguistic resources, spatial resources are activated in specific contexts to meet communicative needs (Pennycook & Otsuji, 2015; Yao, 2021). For example, metrolingual workplaces like commercial kitchens often display complex language dynamics, as workers adapt languages and semiotic resources to fit the space and activities involved (Pennycook & Otsuji, 2015).

In essence, spatial repertoires emerge from the unique qualities of a place, influencing interactions by considering both individual language repertoires and the specific communicative functions required.

2.1.4. Metrolingual Practices and Mobility

Pennycook and Otsuji (2015) argue that metrolingual practices are shaped by the rhythmic mobility of city life. Language patterns, like transport routes, shift as people move through the city, leading to varying language use across different spaces and times. As people travel, the city's linguistic and cultural landscape undergoes periodic changes, making the city a dynamic crossroads of movement and practices.

Horner and Dailey-O'Cain (2020) similarly note that as people relocate, they carry language and cultural concepts with them, leading to the continuous construction and reconstruction of social spaces. Blommaert and Backus (2013) add that mobility makes linguistic repertoires dynamic and adaptable to different communicative needs.

The next sections discuss language and the city, drawing on studies from various international and national contexts.

2.2.Related Works in International Context

Several studies have examined language practices in urban contexts, highlighting the diversity of multilingual environments. For instance, Mishra (2020) explored Vellore, India, noting that multiple languages are used for social integration despite local resistance to Hindi. English is prominent in public spaces, alongside various regional and foreign languages. Selim (2019) focused on Tunisia's linguistic landscape, revealing a mix of languages in public signs, reflecting both power dynamics and multilingualism.

Van Aalst and Nortier (2018) studied youth in Utrecht, Netherlands, finding that language use is closely tied to urban spaces and social interactions. Pennycook and Otsuji (2015) explored metrolingual practices in Sydney and Tokyo, highlighting the complex interplay of languages in multicultural settings like

markets and restaurants. Extra and Yağmur (2011) mapped urban multilingualism in Europe, identifying widespread language use across six cities and the dominance of English as a global lingua franca.
These studies collectively underscore the prevalence of diverse languages in urban areas, supporting the metrolingual perspective central to this research.

2.3.Related Works in the Malaysian Context

Over the years, various studies have explored Malaysia's sociolinguistic landscape, focusing on multilingual practices across the country. However, many do not delve deeply into real-life language use in emerging urban spaces.
Nur Hidayatulshima et al. (2020) examined Sentul in Kuala Lumpur, noting that Malay, English, Chinese, and Tamil dominate shop signs. The study highlighted the prominence of bilingual and trilingual signs, reflecting Malaysia's multicultural landscape, with Malay prioritised in accordance with national language policy.
Beh (2017) studied the linguistic diversity of Penang Road in George Town, finding that English, Malay, and Chinese are the main languages on public signs, with English dominating. The presence of foreign languages, particularly Japanese, is also noted, catering to the increasing number of foreign residents.
Soon et al. (2017) focused on Labuan, revealing that businesses often use transliteration, code-mixing, and semantic translation in their company names. English is highly utilised in bilingual signs, dominating the business domain.
Siti Hamin et al. (2013) explored language preferences among Japanese retirees in Malaysia, finding that English is the preferred language in both formal and informal settings. Despite their basic proficiency in English and Malay, the retirees rely on English for communication, facilitated by Malaysia’s My Second Home programme.
In summary, these studies illustrate the diverse use of languages across Malaysian cities, catering to the heterogeneous urban communities and promoting intelligibility in daily life.

3. Methodology

3.1.Research Design

This study employed a descriptive case study approach to thoroughly explore metrolingual practices in George Town World Heritage Site (GTWHS). A mixed-methods design was used, combining quantitative and qualitative methods to provide a comprehensive analysis. Surveys gathered large-scale data on demographics, language use, and perceptions, while semi-structured interviews offered deeper insights into participants' language practices and motivations. This approach enhances the reliability and validity of the findings by integrating various data sources and perspectives.

3.2.Research Setting

George Town, Penang, was selected for its rich multicultural and multilingual heritage, further recognised by UNESCO as a World Heritage Site in 2008. Data was collected from various urban heritage sites within GTWHS, including The Waterfront, Business District, Cultural Enclave, Enterprise Zone, and Leisure Zone, as well as traditional commercial areas.

Table 3.1: Selected sites for data collection

Concentric Zone	GTWHS Precinct	Street/Road/Lane
Core Zone	The Waterfront	Downing Street (Lebuh Downing) Light Street (Lebuh Light) Esplanade Road (Jalan Padang Kota Lama) Green Hall Road (Jalan Green Hall)
	Business District	Beach Street (Lebuh Pantai) Bishop Street (Lebuh Bishop) Market Street (Lebuh Pasar)
	Cultural Enclave	Armenian Street (Lebuh Armenian) Acheen Street (Lebuh Acheh) Carnavon Street (Lebuh Carnavon) Pitt Street (Jalan Masjid Kapitan keeling) Cannon Street (Lebuh Cannon)
	Leisure Zone	Love Lane (Lorong Love) Chulia Street (Lebuh Chulia)
Buffer Zone	Cultural Enclave	Malay Street (Lebuh Melayu)
	Enterprise Zone	Campbell Street (Lebuh Campbell) Hutton Road (Jalan Hutton) Hutton Lane (Lorong Hutton) Dickens Street (Lebuh Dickens) Penang Road (Jalan Penang) Chowrasta Road (Jalan Chowrasta)
	Leisure Zone	Leith Street (Lebuh Leith) Chulia Street (Lebuh Chulia)

3.3.Sampling Technique

Participants were randomly selected using convenience sampling due to proximity and availability. This method is common in developmental science and is suitable for case studies focusing on specific social phenomena, rather than making statistical generalisations.

3.4.Sample Population

The study involved 120 participants from both local and non-local populations residing, working, studying, or visiting GTWHS. The demographic profile included a majority aged 18-24, with a higher number of females than males. Most respondents were Malaysian, with varying ethnicities and education levels. The sample included students, professionals, and others with diverse occupations.

3.4.1. Profile of Respondents (Quantitative Stage)

The majority of respondents were Malay speakers (henceforth L1), followed by English and Chinese-Mandarin speakers. Proficiency levels in L1 varied, with high competence in speaking, listening, reading, and writing. English was the most common second language (henceforth L2), with moderate proficiency levels across speaking, listening, reading, and writing. For the third language (henceforth L3), many respondents had no L3 skills, with Malay and Chinese-Mandarin being the most common L3 languages.

Table 3.2: Demographic Profile of Respondents

Item		Frequency (N)	Total
Age			
Under 18		1	120
18 – 24		56	
25 – 29		41	
30 – 34		14	
35 - 39		3	
40 – 44		2	
45 – 49		1	
50 – 54		1	
55 - 59		1	
Gender			
Male		52	120
Female		68	
Nationality			
Malaysian		115	120
Non-Malaysian	Bangladeshi	1	
	German	1	
	Indian	1	
	Thai	1	
	Yemeni	1	
Ethnicity			
Malay		72	120
Chinese		26	
Indian		13	
Other	Iban	2	
	Kadazan-Dusun	1	
	Melanau	1	
	Rungus	1	
	Siamese	1	
	Thai	1	
	Arab	1	
	Caucasian	1	
Highest level of education			
Primary		2	120
Secondary		18	
Tertiary		100	
Line of work/occupation			
Professional and technical		24	120
Managerial and supervisory		9	
Clerical, sales and services		22	

Student		55	
Other	Freelancer/ self-employed	3	
	Entertainer	2	
	Social Media Content Moderator	1	
	Barber	1	
	Beautician	1	
	Editor	1	
	Trainee	1	

3.4.2. Profile of Respondents (Qualitative Stage)

Out of 120 respondents, 36 were selected for semi-structured interviews. These participants came from various professional backgrounds and spoke multiple languages, including Malay, English, Chinese-Mandarin, Tamil, and Arabic. The interviews aimed to gain deeper insights into their language practices and interactions within the multicultural environment of GTWHS.

Table 3.3: Details of respondents for qualitative data

Respondent	Gender	Line of work/occupation	Languages spoken
spondent 1	Female	Managerial and supervisory	Malay (L1), English (L2), Chinese-Hokkien (L3)
spondent 2	Male	Professional and technical	Malay (L1), English (L2)
spondent 3	Female	Clerical, sales and services	Malay (L1), English (L2)
spondent 4	Male	Clerical, sales and services	Malay (L1), Chinese-Mandarin (L2)
spondent 5	Female	Professional and technical	Tamil (L1), Malay (L2), English (L3)
spondent 6	Female	Professional and technical	Malay (L1), English (L2), Chinese-Mandarin (L3)
spondent 7	Male	Clerical, sales and services	Malay (L1), English (L2)
spondent 8	Female	Student	Tamil (L1), English (L2)
spondent 9	Female	Clerical, sales and services	Malay (L1), English (L2)
spondent 10	Female	Student	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 11	Female	Clerical, sales and services	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 12	Male	Clerical, sales and services	Tamil (L1), English (L2), Malay (L3)
spondent 13	Female	Professional and technical	English (L1), Malay (L2)
spondent 14	Male	Managerial and supervisory	English (L1), Iban (L2), Malay (L3)
spondent 15	Male	Professional and technical	English (L1), Hindi (L2), Tamil (L3)

spondent 16	Female	Managerial and supervisory	English (L1), Malay (L2)
spondent 17	Female	Clerical, sales and services	Malay (L1), English (L2), Javanese (L3)
spondent 18	Female	Student	Malay (L1), English (L2)
spondent 19	Female	Professional and technical	Malay (L1), English (L2)
spondent 20	Female	Professional and technical	Malay (L1), English (L2), Arabic (L3)
spondent 21	Male	Professional and technical	English (L1), Malay (L2), Chinese-Hokkien (L3)
spondent 22	Female	Student	English (L1), Malay (L2)
spondent 23	Male	Clerical, sales and services	Malay (L1)
spondent 24	Male	Student	English (L1), Malay (L2), Chinese-Mandarin (L3)
spondent 25	Female	Student	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 26	Female	Student	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 27	Female	Student	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 28	Female	Student	Chinese-Hokkien (L1), Chinese-Mandarin (L2), English (L3)
spondent 29	Male	Clerical, sales and services	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 30	Male	Other (Entertainment)	Malay (L1), English (L2)
spondent 31	Male	Other (Entertainment)	German (L1), English (L2), French (L3)
spondent 32	Male	Other (Editorial)	English (L1), Malay (L2)
spondent 33	Female	Clerical, sales and services	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 34	Female	Professional and technical	English (L1), Malay (L2)
spondent 35	Female	Student	Chinese-Mandarin (L1), English (L2), Malay (L3)
spondent 36	Male	Professional and technical	Malay (L1), English (L2), Arabic (L3)

3.5.Instruments for Data Collection

The study employs a survey questionnaire to collect quantitative data, addressing research questions RQ1, RQ2, and RQ3. Developed from the work of Pennycook and Otsuji (2015) and Mishra (2020), the questionnaire comprises 55 questions across four sections, featuring mostly close-ended questions with a few open-ended ones.

Table 3.4: Segmentation of the Survey Questionnaire

Section A: Demographic Profile gathers eight items on basic respondent information, including age, gender, nationality, ethnicity, education, occupation, reasons for being in George Town, and frequented places. This section uses checkboxes for responses, with some items allowing multiple selections.
Section B: Language Profile includes three items on respondents' languages (L1, L2, L3) and proficiency levels, using both open-ended questions and Absolute Category Rating (ACR) scales ranging from Very Good to Very Poor.
Section C: Language Choice and Use contains 36 items where respondents select the languages they use in various daily situations across urban spaces in GTWHS. Options include English, Malay, Mandarin, Hokkien, Tamil, and others.
Section D: Perceptions towards Language Practices features eight attitudinal statements rated on a 5-point Likert scale to assess respondents' views on their language use in different contexts and interactions.

The questionnaire was piloted with 10 respondents in Armenian and Light Streets, with revisions made based on feedback and final approval from the research supervisor before its official distribution.
The semi-structured interview questions, based on Pennycook and Otsuji (2015) and Mishra (2020), address RQ2 and RQ3. Ten questions, including six key items, were informally tested with 10 respondents in Armenian and Light Streets, revised, and approved by the research supervisor before data collection.

Table 3.5: Items for Semi-structured Interviews

Item no.	Item	Research question
1	What is/are the language(s) used in the premise/menu/product or service description?	RQ2
2	If more than one language is present in the premise/menu/product or service description, which would be normally used when dealing with or explaining to the customer/client/guest?	RQ2
3	If your staff/workers/peers/colleagues in the premise are from different backgrounds, what are the languages commonly spoken in the premise?	RQ2
4	Where do exactly these languages are typically being used and in what situation?	RQ3
5	How did you pick up using some of the languages in the premise that you just mentioned?	RQ3
6	As you move around, for example, kitchen to dining area, to dealing with the customer/client/guest, or perhaps as you give or take calls, are you aware of your language choice and use? Describe.	RQ3
7	What languages do you often use or hear in the premise?	RQ2

8	When and what kind of customers/clients who often frequent here, and what language(s) do you usually use with them	RQ3
9	What do you think of the use of different languages in your interaction at your own premise?	-
10	Personally, what is your opinion about the occurrence of different languages being used all over George Town today?	-

3.6. Data collection and analysis

The quantitative data were collected using a questionnaire distributed on-site across various locations in George Town World Heritage Site (GTWHS), including the Core and Buffer Zones. This distribution took place in five historic precincts: The Waterfront, Business District, Cultural Enclave, Enterprise Zone, and Leisure Zone. The questionnaire, designed to address RQ1, RQ2, and RQ3, was administered to respondents in urban spaces such as cafés, food courts, and commercial areas. It took less than 10 minutes to complete, with respondents allowed to ask questions for clarification.

For the qualitative data, 36 participants were interviewed using semi-structured questions aligned with RQ2 and RQ3. Due to participants' time constraints, only the first six key questions were used. Interviews were audio-recorded, transcribed verbatim, and analysed using content analysis. The process included renaming audio files, transcribing with all verbal cues, and coding data to identify recurring themes and categories. The analysis aimed to provide insights into language use and practices in different contexts within GTWHS.

Quantitative data were analysed through frequency counts, converting responses into percentages for clarity. Qualitative data were processed by coding and categorizing themes from transcriptions to address research questions. The analysis focused on understanding language repertoires and their use across various urban spaces.

Taking into account ethics, participants were informed about the study's purpose and their consent was obtained. Confidentiality was assured for all data collected, and informed consent was required for audio-recording interviews.

4. Findings and analysis

4.1.Quantitative data

4.1.1. Metrolingual practices in GTWHS

In cafés, restaurants, and bars on Love Lane and Chulia Street, English is the most preferred language across various situations. For table reservations, 53% of respondents favour English, with Malay at 30.8% and Chinese-Mandarin at 9.1%. Preferences for mixed languages are noted at 6.1%. When requesting menus and placing orders, 51.7% of respondents use English, while 29.3% use Malay, and 9.3% use Chinese-Mandarin. Mixed languages are used by 6.3%, with minimal preference for Chinese-Hokkien and Tamil. In interactions with staff, 49.5% prefer English, 31% prefer Malay, and 10% prefer Chinese-Mandarin, with mixed languages used by 6.5%. For casual conversations, 40% choose English, 36.5% choose Malay, and 10.5% choose Chinese-Mandarin. Mixed languages are used by 9.5%, with low usage of Chinese-Hokkien and Tamil. When handling complaints, 50% use English, 30.4% use Malay, and 11.3% use Chinese-Mandarin, with mixed languages used by 6.7%. For phone calls, 39.9% prefer English, 35.6% prefer Malay, and 10.6% prefer Chinese-Mandarin, with 9.1% using mixed languages and minimal

usage of Chinese-Hokkien and Tamil. A small number of respondents also use other languages such as Iban and Dusun.

In Nasi Kandar and Mamak restaurants or stalls around GTWHS, Malay is the most frequently used language. For ordering food, 67.9% of respondents prefer Malay, while 18.2% use English and 6.9% employ mixed languages. Tamil is used by 5.7%, and Chinese-Mandarin and Bengali each by 0.6%. When interacting with staff, 68.8% prefer Malay, with 18.5% using English and 5.1% opting for Tamil. Mixed languages are used by 7%. In casual conversations, 47% use Malay, 30.3% use English, and 8.1% use both Chinese-Mandarin and mixed languages. Tamil and Chinese-Hokkien are less commonly used. For complaints, 68.4% prefer Malay, 17.1% use English, and 7.2% use mixed languages. Chinese-Mandarin is used by 1.3% and Tamil by 5.3%. When answering or making phone calls, 45% choose Malay, 31.9% use English, and 9.9% opt for mixed languages. Tamil and Chinese-Hokkien are less common, with Arabic used by only 0.5%. For reading local newspapers, 52.9% prefer Malay, 37.6% prefer English, and 3.8% prefer newspapers in mixed languages. Chinese-Mandarin and Tamil are used by 2.5% each.

In professional environments such as banks, offices, and museums in Beach Street, English and Malay are the most commonly used languages. When seeking assistance or clarification, 52.2% of respondents prefer English and 33.5% prefer Malay, with a small percentage opting for mixed languages (8.2%) or Chinese-Mandarin (5.5%). For official interactions with staff or clients of the same ethnicity, 43.2% use English, while 36.3% use Malay. When dealing with different ethnicities, 49.2% favour English, and 34.9% prefer Malay. In casual conversations, English (39.4%) and Malay (37.4%) are most common, with 10.3% using mixed languages. For phone calls, 40.6% prefer English, and 37.1% choose Malay. Finally, when reading information, 49.5% prefer English and 36.6% prefer Malay, with a smaller portion using mixed languages (7.5%) or Chinese-Mandarin (4.8%).

In hotels and guesthouses across Farquhar Street, Chulia Street, Penang Street, and Leith Street, such as the Eastern and Oriental Hotel and Chulia Heritage Hotel, English and Malay are the most preferred languages. When making room reservations, 58.4% of respondents choose English, while 29.2% opt for Malay. For check-ins, 53.4% prefer English, and 31.5% prefer Malay. During check-outs, 54.4% use English and 30.8% use Malay. Casual conversations see a preference for English (43.1%) and Malay (35.5%), with 10.7% opting for code-switching. When requesting room service, 56.3% use English and 30.1% use Malay. For handling complaints, 55.6% prefer English, and 29.2% prefer Malay. Other languages like Chinese-Mandarin and Chinese-Hokkien are used less frequently, reflecting a general inclination towards English and Malay in these hospitality settings.

In Armenian Street's cultural enclave, including sites like the Batik Painting Museum and Penang Street Art, respondents exhibit a strong preference for English and Malay across various scenarios. When negotiating or bargaining at shophouses and tourist spots, 43% favour English, while 33.3% choose Malay. For casual conversations, 38.8% prefer English and 34.1% Malay. Asking for or providing directions sees 43% preferring English and 36% Malay. Assistance and permission-related interactions are handled with 44.1% opting for English and 33.3% Malay. In seeking clarifications about services or prices, 44% prefer English, with 33.5% opting for Malay. For reading provided information, 49.2% prefer English, and 34.1% Malay, with a notable 9.2% engaging in code-switching or mixing languages. Chinese-Mandarin and Chinese-Hokkien are used less frequently, reflecting a predominant preference for English and Malay in these settings.

At Penang Road's farmers' and community markets, including Chowrasta Market and Penang Bazaar, Malay is predominantly used for communication alongside English and code-switching. In negotiating or

making bargains, 44.4% of respondents prefer Malay, with 25% opting for English. For interactions with individuals of different ethnic backgrounds, 45.3% prefer Malay, and 30.8% choose English. During casual conversations, 39.2% prefer Malay, while 31.2% use English. For requesting assistance or clarifications, 43.5% favour Malay, and 29% use English. In reading promotional materials, 42.1% prefer Malay and 32.3% English. Chinese-Mandarin and Chinese-Hokkien are less commonly preferred, reflecting the overall dominance of Malay and English in these market environments.

4.1.2. Individual and Spatial Repertoires in Metrolingual Practices of the Urban Community in GTWHS

The data reveals that in the GTWHS urban community, 58% of respondents identify Malay as their L1, 18% speak English, and 14% speak Chinese-Mandarin. English is the predominant L2 for 74% of respondents, while 18% use Malay as their L2. Proficiency levels in L2 vary, with 35% reporting very good speaking skills and 47% very good reading skills. Respondents also frequently use L3, such as Malay, Chinese-Mandarin, Arabic, English, Chinese-Hokkien, and Tamil. Spatial language practices in GTWHS show that English and Malay are commonly used across various urban settings, while languages like Chinese-Mandarin, Chinese-Hokkien, and mixed language use are situational, with frequent code-switching and code-mixing reflecting the dynamic nature of communication in these spaces.

4.1.3. The Relationship between Urban Space, Repertoires and Mobility in Influencing Metrolingual Practices in GTWHS

The data highlights how urban space, repertoires, and mobility influence language practices in GTWHS. It is found that 45.8% of respondents strongly agree and 40% agree that their language use varies with the physical setting of a place, while 46.7% strongly agree and 38.3% agree that it changes with the social setting. Additionally, 41.7% agree that they adopt terms from languages commonly used in specific places. A significant 50.8% strongly agree that they match their language with that of their conversational partner. About 34.2% agree that their language use shifts between different city spaces, and 38.3% strongly agree they are conscious of their language use across various settings. Furthermore, 53.3% strongly agree that they take pride in their languages as part of their public identity. Lastly, 40.8% agree that code-switching and mixing between languages helps them better understand others despite cultural differences.

4.2.Qualitative data

4.2.1. Individual and Spatial Repertoires in Metrolingual Practices of the Urban Community in GTWHS

The qualitative data highlight how respondents' language use varies by context and setting within GTWHS. For instance, professionals like lawyers and customer service workers adjust their language use based on their environment: a lawyer uses Malay in court due to legal requirements but switches to English in her firm, while a customer service worker employs English, Malay, and occasionally other languages depending on the customer. This adaptability demonstrates how spatial contexts, such as legal, business, or service environments, influence language practices. Similarly, individuals with different language proficiencies, such as baristas or non-Malaysians, select their languages based on their interactions and the linguistic backgrounds of those they encounter. This flexibility in language use reflects the broader metrolingual practices observed in GTWHS, where the choice of language is closely tied to both personal and spatial factors.

4.2.2. The Relationship between Urban Space, Repertoires and Mobility in Influencing Metrolingual Practices of the Urban Community in GTWHS

In this section, the relationship between urban space, language repertoires, and mobility is explored through interview findings. The data show that respondents adjust their language use based on their physical and social environments. For instance, one respondent notes that English is predominantly used at work but less so at home, reflecting a change in language use depending on the setting. Similarly, another respondent uses formal English for work tasks but switches to casual language when interacting informally with colleagues.

Respondents also report that their language practices vary with their mobility. For instance, a student mentions that his language use changes as he moves between home, school, and work, adapting to the specific context of each place. Another respondent observes that while they use more Malay at home, they predominantly use English in social settings with friends.

The data further indicate that migrants adjust their language use based on their new environment. For example, a respondent originally from Sarawak now uses less of their native language, Iban, and more of the local dialects in George Town. Another migrant from India uses English frequently due to the limited use of his native languages in the new city.

Overall, these findings illustrate that urban space, mobility, and the available language repertoires significantly influence how individuals navigate and adapt their language use in different contexts.

4.3.Summary of All Findings

The study reveals diverse metrolingual practices in George Town, Penang, encompassing mainstream languages like Malay and English, as well as community languages such as Chinese-Mandarin, Chinese-Hokkien, Tamil, Arabic, Iban, Dusun, and Bengali. Language use varies across different urban spaces, with English and Malay being common in places like cafés, professional settings, and tourist spots, while Chinese-Mandarin and code-switching are also prevalent. Malay is predominantly used in local eateries and markets. The majority of respondents are multilingual, adapting their language use to fit various communicative needs and environments. Both quantitative and qualitative data show that individual and spatial repertoires, along with physical and social settings, shape metrolingual practices, reflecting respondents' positive perceptions of their language use in the city.

5. Discussion and conclusions

The study reveals that the urban community in George Town World Heritage Site (GTWHS) exhibits a diverse array of language practices. Residents and visitors navigate a linguistic landscape that includes English, Malay, Chinese-Mandarin, Chinese-Hokkien, Tamil, and other languages. Language use varies significantly depending on the setting. In cafés, restaurants, and professional environments, English and Malay are predominantly used, while local eateries like Nasi Kandar or Mamak stalls favour Malay. Markets and tourist spots exhibit a mix of languages, reflecting the dynamic and multicultural nature of these spaces. These findings illustrate how language practices are tailored to fit the specific communicative needs and environments.

The study highlights the role of individual and spatial repertoires in shaping language use. Respondents demonstrate a wide range of language skills influenced by their backgrounds and contexts. The language practices observed are fluid, adapting to different social spaces and interactions. This supports the idea

that language use in GTWHS is dynamic and context-dependent, aligning with Pennycook and Otsuji's concept of flexible language practices.

The relationship between urban space, mobility, and language use is also significant. The study shows that language practices are shaped by the physical and social environment. Respondents frequently code-switch or mix languages based on their surroundings, reflecting the adaptability of their language use in response to different spatial and temporal contexts. This adaptability underscores the importance of context in understanding metrolingual practices.

The findings have several implications for the field of sociolinguistics. They expand the understanding of metrolingualism, particularly in the Malaysian context, and highlight the interplay between language use and urban environments. This study offers valuable insights into how language practices are influenced by the multicultural and diverse settings of GTWHS, contributing to broader discussions in both sociolinguistics and urban studies.

For future research, it is recommended to include a larger sample size or investigate other urban areas in Malaysia to enhance the generalisability of the findings. Extending the data collection period and incorporating additional materials could provide a more comprehensive understanding of metrolingual practices. Furthermore, conducting more inclusive interviews may offer clearer insights into the nuances of language use in diverse contexts.

In sum, the study provides a detailed exploration of metrolingual practices in George Town, highlighting how language use is influenced by individual and spatial factors. It reveals the fluid and adaptive nature of language practices in response to varying urban settings, reflecting the dynamic interactions within a heritage city.

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