CHAPTER-3
RESEARCH METHODOLOGY

Traditionally most languages have been studied and described as if they were standard languages.

(Coulmas 1994:175)

3.1 Introduction

This chapter provides a description of the methodology of the present study. Most linguistic landscape studies use quantitative and qualitative methods to examine various aspects of the linguistic landscape. Likewise an eclectic method is employed to interpret the representation of languages such as Telugu, Urdu, English and Hindi in public spaces of Hyderabad. The present study also analyzes certain instances qualitatively drawn from the collected data. The discrepancies between the language policy and actual language practice in the state as well as in the union were explored by examining functional patterns of publicly displayed languages on signs and scripts. In this respect, the broader objective of this research is “to preserve the form, content, and context of social phenomena and analyze their qualities, rather than separate them from historical and institutional surroundings” Lindolf (1991, p. 24). More specifically, building upon interpretive and naturalistic qualitative methods, this study uses critical ethnography in order to examine the multilingual communicative practices in Hyderabad through the dynamics of language policy, signs, and people's attitudes. The following sections will present the research problems, objectives, and research questions addressed by this study. Then, the
research methods and sampling procedures used for data collection and analysis will be described in detail.

(a) Research Problems

As explained in the previous chapter, despite including a variety of countries, cities and contexts, the LL literature falls short of studies exploring LL in Indian context. Though India has been under-represented in the LL literature, linguistic landscaping has been studied in multilingual context by Itagi & Singh (2002), Dasgupta (2002) Rammoorthy (2002). Although several LL studies have provided quantitative descriptions of signs, only a small body of LL research has linked microlinguistic to macrolinguistic issues and has showed connections between the linguistic landscape and broader implications for language policy and planning issues.

By understanding the linguistic landscape of India in general and Hyderabad in particular, this research seeks to reveal, how linguistic policies are promoted by the Union and the State governments. More specifically, this study makes three contributions to the method of studying LL: First, it takes into account people’s attitudes and then findings from LL data as well as from official policy documents. Triangulating these sources of data – signs, policy documents, and people’s attitudes – I will provide a more holistic understanding of the linguistic landscape of Hyderabad. Second, it offers to analyze linguistic landscape in urban centres by examining urban environment of the eighteen circles (the city divided into 18 circles and 150 wards for administrative purpose) of the city. But in this case I have concentrated on busy commercial spaces and the main arteries of city in addition to lateral routes. Third, by examining, public signage collected across the city provides evidence for how signs are indexical and symbolic with the social environment.
(b) Objectives

The primary objective of this research is to understand whether there are discrepancies between language policy and linguistic practices in linguistic landscape of Hyderabad. Differences in the policies will be examined by paying attention to the languages encountered in the urban spaces across Hyderabad and will be assessed with regard to language visibility and preferences. In addition, I will examine the LL by investigating the relationships between publicly displayed signs, language policy, and the attitudes of the people of Hyderabad.

(c) Research Questions

The following research questions have been divided into four categories, and they will be investigated both through observations as well as a survey questionnaire.

General Research Questions

1. What is the relationship between (a) linguistic policies, (b) sign representations and (c) people’s language attitudes in Hyderabad?
2. What are the inconsistencies between the imposed linguistic policies and the actual linguistic practices of the local people?

To answer the above questions, the data were analyzed according to three specific orientations: linguistic content, modality, and relation of signs to their audience. The data was analyzed in terms of three important questions: (a) what do the signs say and which language is used on these signs?, (b) what do these signs represent in terms of symbol systems?; and (c) what is the relationship between signs and their audience? I spell out the specific questions posed within each orientation below:

(i) Linguistic Content

Considering Telugu, Urdu/Dhakani, Hindi, and English
(1) What is the degree of visibility and ratio of signs from each respective language in Hyderabad?

(2) What is the extent of linguistic diversity on top-down signs?

(3) What is the extent of linguistic diversity on bottom-up signs?

(4) What are the informative and symbolic functions of each respective language on these signs?

(ii) Modality

(1) What is the degree of multimodality of signs in Hyderabad?

(2) What is the relative status of multimodality on top-down signs versus bottom-up signs?

(3) How does language relate to other symbol systems in conveying meaning in these signs?

(iii) Relationship between Signs and their Audience

(1) How do signs display a Hyderabadi (multilingual) identity?

(2) What are the linguistic choices and use of semiotic symbol systems of signs?

(3) What are people’s attitudes toward both top-down signs and bottom-up signs in the LL of Hyderabad?

(4) How do people interpret the meanings and messages of signs?

(5) What is the relative focus of readers on language versus other symbol systems when they process signs? (Adopted from Ben Said, 2010)
3.2 Setting the methodological framework

The methodology used to collect data in sociolinguistic research is an important state of significance (Milroy, 1987). Specifically, the methodology for this study was informed by the analytical frameworks identified with Backhaus' (2007), Ben-Raefael et al. (2006), Huebner (2006), Malinowski (2009), Reh (2004), Coulmas (2009), Hanauer (2009), Lai (2012), Itagi & Singh (2002). As well, the theoretical framework deployed by Scollon & Scollon (2003), Bakhtin (1981) and Spolsky & Cooper (1991) provided further theoretical backbones for the study. On the other hand, Barni & Bagna (2011), Garvin, (2010) provided additional strategies involved in data collection phases which mainly focus on interviews and interview methods to arrive at judgements related to linguistic landscape. The interdisciplinary study of LL studies as identified and discussed in Chapter 2, seems rather natural that this study would derived from multiple theoretical frameworks as long as they belong in, or are adaptable to sociolinguistics. In this light, the discussion will show, apart from the predictable grounding of the study in multilingualism and variationist sociolinguistics (given the study's focus on what termed [Backhaus, 2007, p. 1], "urban language contact in the written medium") there will be forays into semantics and pragmatics, discourse analysis, semiotics, and sociology. The intention is to bring on board whichever strand of knowledge would provide significant sociolinguistic information about the LL of Hyderabad. The following are the theoretical frameworks such as language choice, Spolsky & Cooper (1991); indexicality, Scollon & Scollon (2003), and dialogicality, Bakhtin (1981) are provided further theoretical backbones for the study.
(a) Language Choice

The study of verbal signs in public space has over the Fifty years. It has become a great tool to explore and characterise the ecology of multilingual urban area. Choice of language in public signage is similar to the model which is used for language policy in general where it talks about actual practice, an attempt to infer the actual beliefs, and management. The informative content of the sign and the choice of language reflect a symbolic value of some or all the participants. The process of language choice is never neutral. Choice predictably means selection and selection is always at the cost of rejection. One needs look at choice of language policy from many perspectives. For example, who is choosing whom under what circumstances? This shows the power dynamics working in the selection. The question of choice, covertly takes note of who is being eliminated and with whom, is the pressure group. In the selection process various economic, political, sociological and economic considerations work. So planning should be that most of the languages get benefit out of it.

Spolsky & Cooper (1991) stated that the choice of language by proposing three relevant conditions. The first condition is ‘to write in a language you know’. The second one captures the communicative aspect i.e. ‘prefer to write a sign in a language which can be read by the people you expected to read it’. The third condition is language choice on signs that emphasizes ownership. It is also called as the ‘symbolic value condition’ i.e. ‘prefers to write in the language an individual know or in a language which has the ability to assign a unique identity to the individual. These three conditions account for the order of languages on multilingual signs and a major part of theory of language choice in public signage.
(b) Indexicality

The concept indexicality was initially developed in philosophical terms by Peirce (1982) to refer to how our perceptual judgments and uses of language point to ‘external’ entities whether conceptual or material (i.e. existing in the real world). In fact, indexicality is distinctive of all signs since the most fundamental form of reference is indexical. Describing indexicality, Peirce argues:

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When I say I mean my discourse to apply to the real world, the word “real” does not describe what kind of world it is: it only serves to bring the mind of my hearer back to that world which he knows so well by sight, hearing, and touch, and of which those sensations are themselves indices of the same kind. Such a demonstrative sign is a necessary appendage to a proposition, to show what world of objects, or as the logicians say, what “universe of discourse” it has in view.
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Peirce et al. (1982)

When applying this concept to semiotic systems and signs, indexicality thus refers to how signs are used to refer to constructs and objects which are bound to a particular context. Scollon & Scollon (2003) have used this Peircean notion of ‘indexicality’ to develop a socially-constructed theory of signs which is known as ‘Geosemiotics’. This analytical theory, which uses some of ‘Peirce’s concept’s and applies them more concretely in the analysis of signs within social settings, is cantered around the notion that signs are context-bound or dependent on the environment where they are situated.
Indexicality is mentioned by Scollon & Scollon (2003) as the property of the context-dependency of signs and they define the theory of Geosemiotics around this core concept. Geosemiotics is thus characterized as “the study of the social meaning of the material placement of signs and discourses and of our actions in the material world” (Scollon & Scollon, 2003, p. 211). The framework offers to the analysis of signs is not only to look at the content, organization, structure and layout of signs, but also to examine how signs are ‘framed’ and ‘situated’ within a particular social context. This aspect of semiotic studies, which takes into consideration the social context of signs, is in line with a perception of the LL as context-bound rather than a-contextual, and fits into a trend of research where “the experience of space is always socially constructed” (Gupta & Ferguson, 1977). In this line, signs can only make sense if they are located within a particular setting. A stop sign is only meaningful ‘in-place’ when it is located where it will serve its contextual purpose, and is thus ‘not operative when it is devoid of context’, for example, a ‘stop’ traffic zone or may be any restricted area. With this definition, the connection between Geosemiotics and Peirce’s concept of indexicality becomes clear. While Peirce pointed out that a sign refers to its object (something outside itself, emphasizing the importance of the context or ‘Object’ in Peircean semiotics which the sign refers to (Scollon & Scollon, 2003) mention that ‘a sign only makes sense because of the context and situation where it is placed’. It follows that the placement of signs in a particular space or place is a crucial notion. Since it allows sign readers to interpret the signs in view of the context in which they are situated. Hence, signs depend on their context for meaning.
(c) Dialogicality

Peirce also introduced the construct of *dialogicality* by arguing that all thinking was dialogic in form. According to Peirce (1958) ‘the self of one instant appeals to a deeper self for its assent’. This was proposed and developed by Bakhtin (1981). The dialogicality of signs has been a leitmotiv within social semiotic theories and has been mentioned in social/interactional analyses of signs and may thus be relevant to the understanding of the linguistic landscape. An idea which is introduced in the Geosemiotics framework of Scollon & Scollon (2003) is the idea that signs operate in a network of *semiotic aggregates*. Semiotic aggregates are defined by the Scollons as ‘the intersections of multiple discourses and the interaction order in particular places’ (p. 167). In addition to the Peircean tradition which has explored the construct of dialogicality, Scollon & Scollon (2003, p. 205) argue that while all signs operate in aggregate, once they are placed in a particular context or environment they become part of an interdiscursive, intersemiotic dialogic system. Within a semiotic aggregate, different discourses may interact and influence one another in such ways as for example a municipal regulatory discourse aimed at pedestrians and motorists which may interact with a commercial discourse. This idea is parallel with Peirce’s conception of the dialogical nature of signs. In the similar way, Kress (2005) also explains that ‘signs are embedded in larger discourses and when designed they are framed in relation to other signs’:

‘“Whomever they are made by, they (i.e. signs) are always also a response to, and an anticipation of, other signs. They need to be understood relationally, and to understand them thus is also to understand them as an enactment of social relations (p. 19).”’
This important development contributed by Kress’s model of social semiotics not only explains how signs are embedded in a particular context of social action, but also how they reveal the ‘discursive dialogicality’ ‘between social actors. Following Scollon & Scollon (2003), the semiotic aggregate quality of signs (i.e. the fact that they are involved in a dialogue) is actually not limited to the dialogue (1) between signs and (2) between signs and sign readers, but also involves a third type of dialogicality which the Scollons did not refer to. That is (3) a dialogue between sign drafters, designers, and writers (whether government or agency) on the one hand, and ‘sign readers’ on the other hand.

As Kress argues, the sign is determined by who acts and in relation to whom; this idea can be used to explain the genre of discourse represented on signs since the type of discourse will be determined by ‘who is speaking and to whom’. In this regard, this idea echoes the notion that signs represent the interplay of the dialogicality of speaker/addressee or designer/audience. More specifically, the genre of discourse on signs not only communicates about the nature of the sign but also gives us an idea about the type of audience these signs address.

The present study has been conducted from a more contextualised linguistic approach that produces a greater understanding of the larger socio-political meanings of linguistic landscapes (Leeman & Modan, 2009, p.233). The significance of semiotics of signage as they reflect social and linguistic realities about people’s language attitudes, policies, and ideologies in the present study is anchored in the following major research parameters; agency; (the sign producer), readership; (the sign consumer), and linguistic dynamics, (language contact situation).
The data collection process involved in the linguistic landscape has to fulfil two criteria, the unit of analysis and geographical location where the unit is analysed. (Backhaus, 2007:65). Thus, the most sensitive issues in analyzing multilingual and monolingual signs include selecting a particular geographical area (neighbourhood, streets, open commercial space, suburbs, etc.), sampling the signs, identifying the unit of analysis, categorizing items for linguistic inventory and drawing distinction and classification between ‘top-down’ and ‘bottom-up’ signs. In the field of LL, the usual definitions are: ‘top-down’ signs are the official governmental regulations or placed by governmental agencies; ‘bottom-up’ signs are those that are placed by individuals, private businesses, commercial enterprises, etc. In this light, many ‘top-down’ signs are those that ‘comply’ with regulations rather than simply being ‘placed’ or ‘belonging’ to governmental institutions.

‘‘The problem of sampling points to a further issue which turns out to be a rather complex problem, although on the face of it may seem simple and straightforward’’. One may say that the linguistic landscape refers to linguistic objects that mark the public space. But the question is ‘what constitutes such an object or sign. In other words, what constitutes the unit of analysis? … ‘Backhaus [2006] defines the unit of analysis as “‘any piece of text within a spatially definable frame’” from small handwritten stickers to huge commercial billboards. Cenoz and Gorter [2006] decided in the case of shop, banks and other businesses to take all texts together as a whole and thus each establishment and not each individual sign became the unit of analysis (p. 3).’’

Thus, the concern in the field of LL, around the unit of analysis has become a much discussed topic of research. My analysis of LL in Hyderabad introduces a
multidimensional methodological approach by employing the above said approaches to examine various sources of LL data. This approach suggests certain multiplicity of ‘units of analysis’ depending on the level of consideration, including the phonetic, alphabetic, word, phrase and discourse levels.

3.3 Data collection Procedure

The data consist of photographs which I captured by means of a Canon FC digital camera, my mobile and some are adverts collected from news papers (here I restricted to mostly the front page of the News papers) (Itagi & Singh, 2002b:ix). Given the place and value of digital photography in LL research (see Gorter, 2006a), I found the camera useful for documenting the signs. Equipped with the camera, I visited all the prominent business circles and main arteries of city and took the photographs of all kinds of signs found in the Hyderabad public space, with an eye for visual multilingualism, thematic variety, and uniqueness. I applied a stratified random sampling procedure (specifically, "convenience sampling" [Milroy & Gordon, 2003]); being a local, native speaker and familiar with the demographics of the city, I used my background knowledge to select the data which would be sufficiently representative of all kind of signs in the Hyderabad LL. Therefore, there are enough examples of each identifiable LL sign in my data. The data were collected between March, 2013 and April, 2015.

A major consideration was the population density and accessibility of main roads, lateral roads and the neighbourhoods (Manan et al., 2014) of Hyderabad. I opted office hours and Sundays to gather data from the busy areas. In fact, many of the
photographs of shop signs were taken mostly on Sundays or rush free hours, when most businesses were closed and I have also captured few signs on working days. The photographs of the signs were stored in my computer's photo gallery section, from where I could retrieve any photo I found relevant for the analysis. I coded each photograph, according to a coding scheme I created.

Figure 3.1 Map of India (www.mapsofindia.com)
3.4 Survey Area

In the studies of linguistic landscape, the unit of analysis is a “contested construct” (Ruiz, 2008). Today, there is lack of agreement and no unified view among scholars on what constitutes a unit of analysis in linguistic landscape. Gorter (2006) states that selecting the city’s most important areas such as commercial spaces, offices or semi-residential complexes etc., are the focal issues in the analysis of both monolingual and multilingual signs in linguistic landscape.

The varying degree of LL signs across the city, including commercial signs, political signs, central government signs on buildings or offices, municipal signs, institutional signs, inscriptions on stones or monuments, shopping malls with shoe shops, various stores, mobile phone shops, drug stores, private and corporate offices, non-governmental organizations, various kinds of graffiti. In addition, data also collected from the main routes of the transport system of the city (RTC and MMTS). Figure 3.1 shows the political capital or regional capital cities in India and Figure 3.2 is the present city map of Hyderabad.
3.5 Unit of Analysis

The most significant issue in the determination of an appropriate methodology in linguistic landscape research is the “unit of analysis”. After Backhaus (2007), who relies on the well-known definition suggested by Landry & Bourhis (1997: 66), linguistic landscape items represent “any piece of text within a spatially definable frame”. Linguistic landscape objects include street name signs, business signs, notice boards and billboards, posters on shop windows and writings on walls, signs on governmental buildings, public announcements, posters on electricity poles, and
lettered door mats etc. The LL objects not only confined to the above mentioned items but also transient signage (language or signs on move) as a part of visual multilingualism of linguistic landscape studies. (Reh (2004), Adetunji (2013) etc. who explicitly includes written tokens that are stationary, movable or ‘transitional’ inscribed objects. In the currents project I record the fixed signs in addition to semi-transient objects such as a parked vehicles displaying multilingual writing in a commercial street (Backhaus, 2007).

Nevertheless, a wide range of written texts on moving objects, including books, newspapers, name cards (Itagi & Singh, 2002b:ix), magazines, T-shirts, brochures, leaflets, banknotes, packages, and other inscriptions appearing on moving objects such as trains, buses and taxi-cabs were included as a part of visual data of the present research (Sebba, 2010; Adetunji, 2013; Alomoush, 2015; Rubdy & Ben Said, 2015). But the signs displaying non-linguistic material such as images and logos, verbal and nonverbal communication and other related materials in the signage are not the essential components of the current study. Although they are an integral part of the local semiotic landscape (Jawarski & Thurlow, 2010) both monolingual and multilingual signs inside buildings or businesses are also not main concerns of this study, but monolingual and multilingual signs attached on a window pane, visible to people outside shops are included in this survey. The incomprehensible LL items such as torn posters and stickers are not part of the collected items. Although Backhaus (2007) excludes labels on products attached on shop windows from his study, they are regarded as an important component of the present linguistic landscape survey.
This study focuses on written signs, following Backhaus' (2007, p. 66) physical, rather than semantic, operationalization of "sign" as any piece of written text within a spatially definable frame. A sign, then, contains an autonomous, independently-framed piece of information, either occurring alone or in contiguity with other similar or dissimilar signs. As such, Figure 3.3 is a regulatory sign, though it emplaced on the barricade which is used by traffic police. It instructs and also directs the commuters about the traffic rules while it warn, those who do not obey the traffic rules. Here the place also matters where the state has authority on particular public place.

![Figure 3.3 a Traffic sign](image)

Again, the signs being studied must be in publicly displayed or in the public space. "Publicness" refers to public accessibility, that is, anywhere a specified public or passers-by can have legal access. So, I gathered my data from all public spaces, both outside, in the open (e.g. streets, public buildings, commercial shop fronts etc.) and inside, within walled spaces (e.g. malls, hospital). The data contain all legible and visible forms of language representation occupying identifiable spatial
limits and made accessible to the public. "Space," here, is sociolinguistically
anchored, encapsulating all of Lefebvre's (1991) three-dimensional
conceptualization: "[spatial practice] the actual distribution of languages on signs
that can be observed and documented by camera, [conceived space] the LL as it is
represented by views and ideologies held by different policy makers whose policies
mould the LL, [lived space] the 'experiential' dimension of LL as it is presented by
'inhabitants'" (Trumper-Hecht, 2009, p. 237).

Notably, I have documented both fixed and mobile signs, following Reh (2004). As
such, my data contains both written signs emplaced on stationary carriers (like
walls, trees, boards, lamp posts, wood) which are immovable at least for some time
as well as signs on means of transport (like trains, cars, buses, goods carriers,
motorcycles etc). Given the significance the mobility value of a sign has for
meaning variation (Reh, 2004), (Alander, 2013), I felt these two broad kinds of
fixed signs could yield interesting results.

3.6 Categories of data

In order to triangulate the findings pertaining to visual multilingualism in
Hyderabad, three different sources of data will be considered. Triangulation will
allow for a comparison between documentary, observational, and interview data.
3.6.1 Primary Data

(i) **Photographic data**: consisting of photographs of signs collected across the city of Hyderabad.

(ii) **Attitudinal data**: collected from residents of Hyderabad through a survey questionnaire which aims at investigating their responses to the signs in the public sphere.

(iia) **Rationale for Including Informants**

The inclusion of data from local informants will not only bring a new dimension to the study of LL, but it will also provide an additional layer of interpretation of the results of the study. The reading of languages on signs will not be limited to the interpretations of an omniscient researcher’s insights - as is the case in most LL research - but will be moderated with and balanced by the perspectives of insiders about their local sociolinguistic communities. This will allow for an interpretation of the linguistic landscape in light of data which prioritizes people’s voices. In addition, local knowledge provided through informant data will ‘constitute non-centralized and independent theorizations which is not contingent on the endorsement from top-down or institutionalized regimes of thought’ (Foucault 1980, p. 81).

(iib) **Survey questionnaire**

The survey questionnaire contains two main sections i.e. demographic and attitudinal data. The first section of the questionnaire aim to obtain demographic profile of the participants: mother tongue, gender, age, education and occupation. The last set of demographic profile comprises the questions dealing with the languages read,
written and spoken. The first set of second part involves open-ended questions to identify language practices that are conducive to languages and scripts on the signs in a set of social domains and settings about the visibility and prominence of Telugu, Urdu, Hindi and English languages in the LL. The second set of second part consists of closed-ended questions about the influence of the union and the state official language policies, code-mixing, difficulty in reading signs followed by their views on the present linguistic practice as well as language policy.

3.6.2 Secondary Data

**Language Policy documents**: Official documents articulating the linguistic policies of the union and the state with respect to official languages, languages of print and script, policy for education at school level (the state as well as the centre) pertaining to the respective status of each language in the context of India (state as well as centre). In addition, I will consider the regulations pertaining to the form of signs with respect to the content, for example the size, placement, and physical characteristics of signs. (Appendix III).

Bearing on these explanations, this study will be based on the examination of three different data sources which will provide each one in its particular way, a different “voice” or representation of linguistic diversity in the context of Hyderabad. These three types of data sources are specifically, (a) the signs, (b), the official documents, and (c) the people’s perceptions. In the following sections, the procedures for collecting visual, official, and attitudinal data will be described with more in detail.
3.7 Coding signs

This section is devoted to the description of criteria used in this current research to categorise the data collected along with useful observations drawn from the existing data. Based on several coding schemes the current study developed a consistent methodology for the landscape study though it is not free from difficulties and challenges. One of the prominent challenges is the absence of shared definition of the unit of analysis as pointed out by several scholars such as Gorter & Cenoz (2008) and Huebner (2009) Tufi & Blackwood (2012). Similarly, there are no coding criteria widely in the practice among the linguistic landscape scholars.

The analytical frameworks are partially used as suggested in previous linguistic landscape studies (Backhaus, 2007; Ben Rafael et.al, 2006; Blackwood, 2011; Blackwood & Tufi, 2012; Lai, 2012; Reh, 2004; Mannan et al., 2015; Alomoush, 2015). Bearing on these LL studies and findings, the present study conducted in Hyderabad is not only to record and categorizes signs. It is also to establish the correlation among types of signs and existing languages and scripts. It further emphasizes other semiotic aspects of signs for their significance in analysing signs.

The data collected in the linguistic landscape of Hyderabad were categorised in accordance with these criteria. data include city, number of languages, top-down and bottom-up, monolingual, bilingual, trilingual and qudrilingual patterns and polylingual instances, source of sign, first language, innovative and idiosyncratic occurrences, different kinds of multilingual writing, mixed signs, hybrid signs etc. The photographs of all monolingual, bilingual, multilingual and multimodal signs are created profiles for coding the visual signs in system.
3.7.1 Top-down and Bottom-up Signs

Linguistic landscape studies identify the bottom-up and the top-down signage as the two main broad categories. Landry & Bourhis (1997:26) made a distinction between private and government signage. The top-down signage includes public signs used by national or federal or central, state or regional or municipal governments such as road signs, place names, street names, and inscriptions on government buildings. In the current project, official and private signs are in correspondence to the distinction between ‘top-down’ and ‘bottom-up’ flows made by Ben-Rafael (2009) including another category maintained by NGO’s or some corporations. Top-down signage, on the one hand, refers to signs placed by the union and the state authorities and non-governmental institutions established by social groups. On the other hand, bottom-up signage refers to commercial signs displayed by business owners, commercial enterprises, shopping malls and other signs placed by individual social actors as graffiti, religious and political posters and banners,(as cited Alomoush 2015; Pavlenko (2010:134).

Although the potential challenges that surround official and non-official sources of signs, a dichotomy which has been challenged by Kallen (2010) who claims that signs should be studied in relation to institutions, domains and activities. The signs should be broadly categorised into top-down and bottom-up signage. It indicates the language practices of bottom-up and top-down actors in a better manner. Thus linguistic landscape patterns can be uncovered by exploring the prominence of languages in the top-down and bottom-up practices. Table 3.1 shows a distinction between top-down and bottom-up signs with regard to the producers of signs. Every sign has been coded according to whether it is produced by the ‘top-down’ or ‘bottom-up’ forces (Ben-Rafael, 2009). Bearing on mind the established terminology
of the linguistic landscape studies, the terms ‘top-down’ and ‘bottom-up’ are used, simply to mean ‘public’ and ‘private’ respectively. The terms ‘bottom-up’ and ‘top-down’ are contested in the linguistic landscape literature, but the important distinction is between ‘public’ and ‘private’, which contributes to the identification of language policies enacted by both public and commercial agencies. (See section: 1.2.1; Wodak, 2006:170)

Table 3.1 Bottom-up and top-down authorship according to the purposes and functions that are intended by the sign producers. (Adopted from Adetunji, 2013)

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<tr>
<th>Authorship</th>
<th>Signs according to activities/institutions</th>
<th>Sub-domains</th>
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<tbody>
<tr>
<td>Bottom-up</td>
<td>Commercial</td>
<td>Business name signs</td>
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<td>Brands</td>
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<td>Information</td>
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<td>Advertisements</td>
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<td>Business signs</td>
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<td>Instructions</td>
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<td>Product labels</td>
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<td>Multifunctional signs</td>
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<td>Newspaper racks</td>
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<td>Others</td>
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<td>Graffiti</td>
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<td>Top-Down</td>
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<td>Direction and regulatory signs</td>
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<td></td>
<td>Institutional</td>
<td>Governmental inscriptions</td>
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</tbody>
</table>
Although linguistic landscape actors construct the linguistic landscape in a fluid, dynamic and changeable manner, the use of public space is negotiated. The above semiotic patterns can be understood as manifestations of social, cultural, commercial and political activities and ideologies common among the local communities. These perspectives are also opted for their importance in uncovering the social and historical aspects of the places and the day-to-day life of people (Alomoush, 2015). Multi-functional signs are designed to serve more than one purpose such as information and instruction to promote the produce of multinational and national companies, business naming and branding or saving money and space for lease on the part of commercial enterprises as shown in Figure 3.4.

Figure 3.4 a commercial sign
Another category is graffiti. Graffiti mean an unauthorised form of transgressive semiotics, either from the perspective of municipal authorities, community or public institutions (Scollon & Scollon, 2003). From the collected data few examples of graffiti were found to be under bridges, passage of streets, walls in the public places and on some buildings and they also might be scattered on commercial signs. Graffiti display people’s tendencies, sentiments and attitudes towards local or national and global political system, religious beliefs, self-identification (like sexual minorities issues) and sexism, etc. The ability to write and read takes the different linguistic forms including Telugu, Perso-Arabic, Dvanagari and Roman script; the Telugu, Urdu and Hindi transliteration of Roman script and the Roman transliteration of Telugu, Urdu and Hindi alphabet are very common in the Linguistic Landscape of Hyderabad.

Figure 3.5a, 3.5b, 3.5c (clockwise) graffiti signs
The top-down signage consists of two main types of signs such as institutional signs and municipal signs. Municipal signs are street signs or signs posted by local authorities to provide information for passers-by as shown in figure 3.6, a bilingual road sign which also has a symbol that directs to certain House numbers.

Figure 3.6 a bilingual road sign (top-down)

In this sign, the business owner designed the sign according to his requirement or wish and the abbreviated form of their company as Desk to Desk Courier and Cargo Ltd as DTDC. There is also a symbolic representation of DTDC services by showing
a man running fast in the above sign. The above noticed characteristics between official and private signs are very valuable for data analysis with respect to agencies and functions (Alomoush, 2015). Bearing these distinctions on mind, the current study will establish relations between existing scripts and languages. It also relates number of themes and trends which will be discussed in detail in the next Chapter.

3.7.2 Multimodality and code preference

Studies in linguistic landscape are rather problematic because, they are always partially multimodal. Language or text is one of many modes present in public space and context (physical, social, economic, political) having a great significance.

Kress & Van Leeuwen (1996) suggests that multimodality contributes significantly to understand the semiotics of signs. In the same vein, Beasley & Danesi (2002:20) argue that the objective of semiotics is to uncover a range of hidden agendas in the ‘underlying level’. Both verbal and nonverbal techniques are employed to make meanings as persuasive as possible. Because non-linguistic devices such as images and logos might accompany monolingual and multilingual writing on linguistic landscape items the current study will attempt to unravel why ‘non-textual techniques’ are employed to illustrate the examples (Beasley & Danesi, 2002:20).

In this study, the signs have been collected from the main commercial spaces and public spaces of Hyderabad. There are three main features on multilingual signs in terms of language choice such as vertical and/or horizontal order of languages on signs, the font size of the languages used and amount of information given on signs. Following Scollon & Scollon (2003: 120-125) vertically the preferred code would be on the top position of signs. If there is a conflict between the size of fonts and the
top-down and bottom-up multilingual order, the former would outweigh the latter. On the other hand, some signs are either dominated by varieties of Telugu or English, Hindi and Urdu. Hindi is confined only to central government offices whereas Urdu is more visible in the old city. The extent of information more appears to be more significant than the visual hierarchy of languages displayed on signs although the size of the font used on the sign cannot be ignored. The significant criterion is to identify the preferred language and scripts on signs as shown in Figure 3.8.

Figure 3.8 an official sign (state government)

3.7.3 Layering

Layering is the coexistence of at least two versions of the same sign in such a way that one is obviously older than the other (Backhaus, 2007, p. 130; Scollon & Scollon, 2003, p. 137), and it is a useful parameter for identifying the changes in a city's LL. This method of research focuses on the coexistence of older and newer editions of signs (Backhaus, 2005). Scollon & Scollon (2003:140) define layering as
extension signs ‘superimposed on or clearly attached as a secondary message commenting on a more permanent or durable main sign’ to convey meanings of newness and temporality, even though this is not always the case. As confirmed by the discoveries of Spolsky and Cooper (1991), such an approach is especially helpful in diachronic linguistics to draw conclusions about a city's LL, at a given point in time. As such, Backhaus' (2007) treatment of layering, specifically his "number of languages" and "proportion of languages and scripts," is applied to the analysis of my data. In addition, I find useful Kallen's idea of "parasitism." According to Kallen (2010), ‘the LL could sometimes be discursive or chaotic, such that there could be "parasitic" signs, that is, signs which are placed on other signs or signs which "involve little conscious planning and considerable spatial independence" (p. 42)”.

In the following example, the name board of the ‘Deccan Grammena Bank’ (Deccan Rural Bank), is written on the building (old version) whereas the new vinyl-flexi name board placed above the entrance. One more board nailed on the previous one to the wall of bank. In this case it is layering as well as chaotic in nature bombarding with the same name on different boards.

Figure 3.9 a bank sign (an example of Layering)
3.7.4 Types of Multilingual Writing

According to Reh (2004) the degree of translation and transliteration on multilingual signs is determined by four main types of multilingual writing. They are ‘duplicating’, ‘fragmentary’, ‘overlapping’ and ‘complementary multilingual writing’. In a similar approach, Backhaus (2007) considers four main types of translation and transliteration on signs, borrowed terms from the field of musicology. In fact, Japan is predominantly a monolingual country where English monolingual signs were considered as multilingual in Backhaus's coding scheme. This claim can be refuted in terms of the following argument:

‘“The idea of monolingualism by country – one state, one language – has become obsolete and has been overtaken by a complicated interplay of many languages. Truly monolingual countries were always an exception, but globalisation with its ensuing migration flows, spread of cultural products, and high speed communication has led to more multilingualism instead of less (Gorter, 2006: 88).”

As a result the English monolingual signs were regarded as unilingual rather than multilingual. That is why the paradigm as articulated by Reh (2004) has the potential to categorise the LL multilingual data. The researcher will build upon the Reh (2004) classification of multilingual writing. These will be discussed in more detail in the following chapter.

3.7.5 Dynamics of Language Contact

There are some signs which appear to be incomprehensible and innovative. Most of the idiosyncratic expressions were found to occur at three main linguistic levels:
orthographic, morpho-syntactic and lexical levels, Alomoush (2015). The analyses of these types of signs are presented in section 4.5 of the next chapter which is based on ‘grassroots literacy’ as employed by Blommaert (2008; 2013).

This was shown by the instances of orthographic and lexical deviations from "Standard English". As noted by Backhaus (2007), idiosyncrasy was preferable to "error" or "mistake," given the difficulty of evaluating language data as "right" or "wrong." But in Fig 3.10, it gives the historical reason to use it as enacted on sign ‘pumpcher’ instead of the English word ‘puncture’. The reason is the city ruled by Nizams for a long time with Urdu as official language where Urdu/Dhakani speakers cannot pronounce consonant clusters (p, t, k) properly. The influence of Urdu-Hindi on Telugu and English lexical items is more among the speakers who are little educated or illiterate.
3.7.6 Monolingual and multilingual Signs

All the signs were categorised as monolingual, bilingual, trilingual, quadrilingual, polylingual or multilingual (Manna et.al, 2014). It shows a corpus of linguistic landscape instances that are collected across the urban Hyderabad. A total of 1136 instances were collected and 22% of them are top-down signs and 78% are bottom-up signs. According to languages on signs, the total numbers of monolingual signs are 162, (16%), bilingual signs are 314 (31%), and multilingual signs are 532 (53%). The monolingual signs are a unilingual sign containing one language or a language variety. Multilingual signs as mentioned earlier are of three main types. Firstly, the bilingual signs had the following combinations such as Telugu in addition to another language like Urdu, English and Hindi; Urdu in addition to Telugu, English and Hindi occurred on central government signs. Second, the trilingual signs had the following characteristics: Telugu in addition to Urdu and English; Telugu, Urdu and Hindi; English, Urdu and Hindi, and Telugu, Hindi and English combinations occurred. Telugu, Urdu, Hindi and English combinations appeared on mixed code. Finally, quadrilingual and polylingual signs contained four or many languages appeared mainly on the central signs and to some extent on commercial signs, for example, railway signs and currency notes have contained many languages. Language combinations on multilingual signs, visibility on multilingual writing, types of multilingual writing, linguistic layering and dynamics of language contact will be presented in a detail in the sections of next chapter.
3.8 Problems in data collection

I encountered some challenges during data collection process for this research. A major challenge was convincing some shop owners to let me take photographs of their signs. The situation was especially in busy business area. It is also difficult to photograph a huge hoarding at commercial junctions or on the top of some buildings. I could not get the right elevation to photograph some signs, especially hoardings because of the width of the lens of my camera. As I have mentioned above, to overcome this difficulty I collected the same advert from news papers (front page) which is found on hoardings in the public space. Being a local and native speaker, it helped me to convince shop owners to collect the data. Moreover, many of the sign-producers (specifically, sign-owners) in the city were bit hesitated in the beginning when asked for their selection of language on the sign. When I explained about the project, they contentedly expressed that their choice of language in designing shop signs.

There were also some technical problems with the photographs. Some of the photographs were not clear enough or incomplete. I could only photograph some signs diagonally or across the road. I could not capture at once signs such as digital displays at various public places of the city, for example the train schedule through the display on digital screens. As such, there were occasional overlaps in the photographs, because I had to take some of them (the photographs) either from different angles or retake them for closer shots. All the imperfect photographs were removed from the data.
3.9 Conclusion

The main purpose behind this chapter is to explore the methodology adopted in analysing visual multilingualism embedded in the linguistic landscape of urban Hyderabad. The qualitative and quantitative research methods are employed to conduct a comprehensive LL study in Hyderabad. The data has been analysed partially based on previous linguistic landscape studies as discussed earlier. Of all, I identified 1136 signs of various sizes. The LL of Hyderabad is depicted by the languages on shop fronts, signs on government offices/ buildings, street names, road signs billboards, walls, notice boards, traffic signs, and inscriptions, inside and outside public spaces, signs on moving vehicles or objects, currency notes, news papers (front page), digital displays etc. As the data show, top-down (government) signs are less prominent than bottom-up (private) signs; the latter are more in number, have a higher rate of multilingualism, and display more indices and varieties of language contact. Both types of signs will be analyzed along the lines of the five research questions mentioned in Chapter one.