

**Translanguaging in Online Language Learning:  
Case Studies of Self-Directed Chinese Learning of Multilingual Adults**

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**Declaration**

I, Wing Yee (Jenifer) Ho, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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## **Abstract**

The aim of the thesis is to explain how multilingual adults use their linguistic and semiotic repertoires, which are records of their life experiences and mobility, to facilitate the learning of Chinese, in particular with the reading and writing of Chinese characters. The thesis begins with an overview of the background of the study in relation to the advent of mobile technologies and mobile learners. Through conducting an extensive literature review, it is argued that out-of-class, self-directed language learning through the use of online platforms has been an under-explored area and this thesis aims to fill in that research gap.

This thesis adopts a multiperspectival approach in its choice of theoretical framework, consisting of translanguaging, multimodality and multilingualism. Each of these approaches contributes to the thesis in a unique way that crosses theoretical boundaries. This thesis illustrates the possibility of connecting these concepts and using them in a meaningful way so that they complement each other in explaining the complexity of meaning-making. Consequently, a combination of methodological approaches are used, including ethnography and social semiotic multimodality. Together they work in partnership with each other with an aim to generate a holistic view of how learning and teaching is conducted in the online learning environment.

Eleven learners were studied in the thesis, among which four case studies are discussed in detail, with a focus on two learning practices: learning to read and learning to write Chinese characters. Learners engaged in these two practices demonstrated how they used their entire linguistic repertoires to construct knowledge through the process of translanguaging. The four case studies supported the need for a 'multimodal turn' in applied linguistics research in order to capture the multimodal nature of communication.

Through repeatedly testing the boundaries and reach of translanguaging, multimodality and multilingualism, this thesis calls for a dialogue between applied linguistics and multimodality so that they can complement each other with the unique set of toolkits and explanatory powers that they have. This thesis has provided an example of how these perspectives can be brought

together in a meaningful way to explore communication contexts that are complex and diverse.

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# Chapter One: Introduction

## 1.1 Chapter synopsis

This thesis is about online, self-directed language learning. Under this arrangement where there is no teacher or concrete curriculum to follow, learners have to select different resources to facilitate their learning. These resources could be internal (e.g. languages that they know or from their previous learning experience), or external (books, websites, or 'native-speaker' friends and families). Drawing from different theoretical perspectives and methodologies, this thesis aims to suggest a new analytical framework of understanding self-directed language learning through the use of online technology.

This chapter introduces the context and motivations under which this research is conducted. Mobility and technology are particularly relevant trends in the context of online self-directed language learning. The chapter then describes the aims, objectives, and the focus of the thesis, which is followed by the research questions that I seek to answer. The chapter then gives a brief introduction to the remaining chapters of the thesis and concludes with an outline of the potential contributions to knowledge.

## 1.2 Self-directed language learning through the use of online technology

Knowles (1975) defines self-directed learning as the "process in which individuals take the initiative, with or without the help from others, in diagnosing their learning needs, formulating goals, identifying human and material resources, choosing and implementing appropriate learning strategies, and evaluating learning outcomes" (p.18). In a similar fashion, Merriam, Caffarella and Baumgartner (2007) see it as "a process of learning in which people take the primary initiative for planning, carrying out, and evaluating their own learning experiences" (p.110). Self-directed learning is often associated with technology. While it is true that technology does make self-directed learning easier, the above two definitions of self-directed learning emphasise that learners have a pivotal role in self-directed learning, and they should be the focus of any research involving self-directed learning.

Self-directed learning is not new in the field of language learning. For decades, it has not been uncommon to find self-instructional language books in bookshops all around the world. Very often they come in a box which consists of a book with contrived dialogues, and a CD-ROM to go with it so one can listen to it while commuting. One feature of these self-instructional materials is that learners are self-directed. For instance, when I wanted to learn Japanese so I could travel to Japan, I first performed an analysis of my language needs. Since I wanted to go shopping in Tokyo, I needed to learn simple language such as 'how much does x cost?' or 'is it available in a smaller size?'. To me, language such as 'how many brothers and sisters do you have?' or 'what is your occupation?' were of less relevance. By engaging myself in a self-directed language learning process, I was able to make decisions for myself concerning the what, when, where, why, and how of language learning. I was able to learn bits of language to engage in a particular communicative act that I wish to engage in, in my case, phrases related to shopping.

When Internet access became ubiquitous, online technology came into play, and online language learning apps such as Rosetta Stone, Duolingo and Memrise started to become a staple of people's mobile phones. They are also available on computers. Now, language learning has become trendy, fashionable, and most importantly, is easy and fun as well. All you need is a phone with Internet access.

A common belief of these self-instructional materials is that they are only used for leisure. No one would claim that a person is seriously learning a language using these self-instructional books. Instead, you would have gone to a language school to sign up for a language class if you really wanted to learn a language 'properly'. In other words, there is an assumption that self-directed language learning is inferior to classroom language learning. There is also another assumption that self-directed language learning is determined by whether the teacher is physically present or not. This view is challenged by Holec:

The extent to which a teacher is physically present is not a good standard by which to judge the extent to which learning is self-directed, it is principally the role of the learner which is the determining factor (1981:4)

While the aforementioned issues are important in self-directed language learning, they are not the focus of this thesis. For me, I am more concerned with the learners' role in online self-directed learning. What kinds of resources do they use when they learn in these online platforms? Do they use similar or different resources? If different, what are the different resources they use? Why do they use them? How are they used? In this thesis, I use the term 'resources' to mean linguistic, semiotic, online and offline resources that learners used in the process of learning. I argue that even though learners are often presented with the same set of resources by the platforms they used, they are able to utilise these resources differently, and at times bring in their own resources to use them in a creative way in order to learn a language.

### **1.3 Mobility and language learning**

The explosion of self-directed language learning, especially in the private sector, is a result of mobility. As Cresswell (2012) suggests, "the mobilities turn is a result of a dissatisfaction with the valorization of forms of stillness – rootedness and the sedentary" (p.648). Nevertheless, while starting with the assumption that society is mobile and dynamic, Sheller (2014) cautions that the new mobilities paradigm is not "asserting mobility as a value, as a contemporary state, or as a desired status" (p.794). In the context of language learning, two aspects of mobility are particularly relevant: mobile technologies and mobile learners.

#### *1.3.1 Mobile technologies*

Globalisation, together with the advancement of technology, has changed the way people communicate. Instead of communicating face-to-face, more and more communication now happens online, both synchronously and asynchronously. It changes how people access and create information. Information is created at an exponential rate, very often in the form of multimodal texts. The success of Massive Open Online Courses (MOOCs) is an example of how easy it is to gather people from all over the world who are

interested in the same topic to share and construct knowledge together with the use of technology. The affordances of these digital, highly mobile platforms that are easily accessible by people's smartphones and tablets have created new sign-making practices (Adami, 2015). Of particular relevance to language learning are the new practices of user-generated contents, multimodality and mobility. I would like to make clear that by mobile technologies I do not only refer to specific devices such as smartphones or tablets, as in the strict definition used in mobile-assisted language learning (MALL) studies. I am also referring to the use of laptop computers and desktop computers, which are being categorised as portable (laptop computers) but not mobile in the MALL literature (e.g. Pachler, Bachmair and Cook, 2010; Pegrum, 2014, with the exception of Kukulska-Hulme, 2005a). However, I do not wish to adopt this distinction between portable and mobile in this thesis. For me, the focus of this thesis is on the learners' use of resources, not on the devices that are used. That is why I include not only typical mobile devices such as smartphones and tablets, but I also include portable devices such as laptop computers, and even less mobile devices such as desktop computers when I talk about mobile technologies. For me, I use the word 'mobile' in a more abstract sense which describes how the affordances of technologies allows learners to be mobile.

The ease of accessing information through the Internet has made out-of-class language learning a new focal point in language learning research, especially on the use of social networks and virtual learning environments. These platforms offer learning opportunities that are likely to be interactive, social and multimodal (Lankshear and Knobel, 1997; Jones and Hafner, 2012; Richards, 2015). Nevertheless, this is just one side of the story. It is equally important to examine how learners use these affordances, or adapt them in their own ways, which are the foci of this thesis. A more detailed literature review on the use of social networking sites and virtual learning environments in language learning is presented in Chapter Two of the thesis.

### *1.3.2 Mobile learners*

While technology has become more mobile, so are the learners. The world is becoming increasingly globalised, or using Vertovec's (2007) words, a world of



*superdiversity*. The end of Cold War has brought new migration and mobility patterns, and together with the advancement of communication technologies, have created a new environment with an “*extremely low degree of presupposability* in terms of identities, patterns of social and cultural behaviour, social and cultural structure, norms and expectations” (Blommaert and Backus, 2013:13; original emphasis). In the context of language learning, this view problematises the traditional notion of language, from a focus of a language being “shared, bounded, characterised by deep stable structures”, to a focus of a language being an “emergent and dynamic pattern of practices” (p.14).

Increased mobility of technologies and learners has changed the way people learn languages. While traditionally language learning occurs in a classroom with textbooks and the presence of teachers, contemporary language learning can sometimes occur in out-of-school contexts. Dong and Blommaert (2013) suggest that these informal learning environments “offer people multiple choices so that they are able to make learning decisions and to negotiate meanings for themselves” (Dong and Blommaert, 2013:7). The act of language learning is no longer about achieving native-speaker proficiency, but to perform the act of *linguaging*, to learn the ‘means of language’ to perform whatever functions they want to using the resource of the bits of language that they possess. Different researchers have slightly different emphases on the notion of linguaging. These different dimensions are elaborated in Chapter Three of the thesis. The idea of language as resource can be exemplified by the four degrees of language learning suggested by Blommaert and Backus (2013): 1) ‘comprehensive’ language learning, 2) ‘specialized’ language learning, 3) ‘encounters’ with language, 4) ‘embedded’ language learning. In a traditional sense, language learning entails what they call ‘specialized’ language learning that learners acquire a specialised genre and register of a language. However, in the context of globalization and technological advancement, there are more ways that languages can be learnt, one of which is ‘encounters’ with language, involving a broad range of ‘minimal’ forms of language learning (Blommaert and Backus, 2013). In addition to ‘encounters’ with language, individuals can also learn bits of language to be used with another language, the goal being to be able to perform code-switching appropriately. This type of learning is called

'embedded' language learning. They further classify 'encounters' with language, one of which being 'temporary language learning' which describes people who learn small bits of different languages to perform specific acts within specific genres. Contrary to the traditional 'specialized language learning', these types of 'encounters' with language are 'transitory' patterns of language learning and these bits of language will "lose active, practical deployability after some time" (Blommaert and Backus, 2013:19).

Not only are learners physically mobile, the resources and experiences that they possess are also highly mobile. The availability of mobile technologies such as tablets and phones enables learners from all over the world to engage in learning together. These learners bring with them different experiences, cultures, ideas to the learning environment. Not only are they able to consume knowledge, they are now also able to produce and distribute knowledge. As Adami (2015) comments, "[a] good deal of ordinary text production is no longer 'from scratch' but is often generated through the forwarding, sharing, assemblage and editing of previously existing texts" (p.186). This kind of 'digital remixing' enables learners to add personal touch to existing texts, to contextualise information based on their experience and expertise, and then share it to the wider public (Zourou, 2012). Thanks to the affordances of these digital technologies, it is increasingly easy to create multimodal texts which allow learners to make use of different modes of representations, such as writing, images, sounds, etc. to make meaning. This high degree of multimodality relies on learners' ability to select apt resources that best suit their interests (Kress, 2003, 2010; Bezemer and Kress, 2016). The free selection of resources and learning paths is what Milstein (2015) calls "en media res" practices which describes students who want to "enter, navigate, and depart a knowledge base through random, self-selected points" (p.10) which ultimately lead to the hybrid use of language that resembles real-life communication. Pedagogically, it flips the traditional roles of teachers and students, as students now have equal access to information as teachers, and they are no longer passive receivers of knowledge. They can possibly be the creators of knowledge (see Chapter Seven).

Mobility of technologies and learners has transformed the contemporary language learning landscape, from static to mobile, from rigid to flexible, from teacher-centred to learner-centred, from serious to fun. In order to understand this transformation from learners' perspectives, this thesis draws on different analytical frameworks and methodological approaches to give an in-depth understanding of the issue. The following section explains why I am interested in this topic and gives an overview of the whole thesis in terms of the design of the study.

#### **1.4 Language learning for free**

My first encounter with the idea of self-directed language learning was during my first year of university studies in Hong Kong. I was a participant in a research that required me to learn a new language in 30 days, using only free online resources (see Chik and Ho, 2017). As a keen language learner, besides learning English and Mandarin, which are mandatory subjects at school, I tried to learn Japanese, German and Spanish by enrolling myself in language classes for years, but I did not succeed in any of them, with the exception of German, as it was a credit-bearing course that I took at university. For the other languages that I had learnt previously for leisure, I only managed to produce very basic fragments of these languages and I did not think I had actually learnt them properly. The research that I participated in, in 2010, gave me a fresh perspective of what language learning is. There was an abundance of language learning resources for me to choose from, and the key was to define my learning goals at the very beginning and find resources that could help me to achieve that goal. This experience helped conceptualise this thesis as I am interested to know from the learners' perspective, how they select resources, and how they use these resources to their advantage when they learn a new language.

#### **1.5 Focus of the thesis**

The focus of the thesis is on the use of *online language learning platforms* (OLLPs), which I treat as one specific instance of the transformation in language learning landscape discussed in Section 1.3.1 and 1.3.2. OLLPs are an increasingly popular way for people to learn a language. I have a personal interest in this topic, as I had been learning Dutch and Italian on an OLLP at the

time of writing this thesis. OLLPs can be seen as types of social networking sites which can create a sense of community and provides a motivating and collaborative non-formal language learning environment outside of school context. They are also spaces where it is the learners who manage their own learning by selecting and deciding the most appropriate tools for themselves (Siemens, 2006). They can choose from the resources available to set their own sequence and pace of learning. Therefore, they are also regarded as personal learning environments (PLEs). Their distinctive design provides a multimodal, interactive language learning environment to its audience.

To give an overview of the use of OLLPs, Zourou (2012) defines several terms and concepts which are often associated with the use of social media for language learning but are ambiguous in meaning, such as web 2.0, social media, social network(ing) sites (SNS), and web 2.0 language learning communities. She classifies web 2.0 language learning communities, which is equivalent to 'online language learning platforms' in the thesis, into three categories: 1) structured language learning communities, 2) marketplaces, and 3) language exchange sites. The OLLP being examined in this thesis, *Memrise*, belongs to the first category, as the "learning materials are accompanied by structured learning pathways" (Zourou, 2012), and this type of language learning platform will be the focus of this thesis. Although this typology is far from definitive, this is a useful classification to differentiate the wide variety of web 2.0 language learning communities available.

The use of OLLPs to learn and teach foreign languages is a relatively recent phenomenon. Thus, there is no consensus in the literature as to how these platforms should be called. Below is a list of names that has been used in the literature:

- Social Network Sites (Harrison & Thomas, 2009; Brick, 2011; Gruba & Clark, 2013);
- Social Networking Sites (SNS) (Clark & Gruba, 2010; Harrison & Thomas, 2009; Harrison, 2013)
- Social Network Sites for Language Learning (SNSLL) (Liu et al., 2013; 2015)
- (Structured) web 2.0 language learning communities (Zourou, 2012; Zourou & Loiseau, 2013)

All these names emphasise the social and interactive nature of these platforms, describing them as spaces for language learning and for social-networking. However, in this thesis I prefer to foreground the fact that they are online spaces for language learning, but not necessarily spaces for social networking, so I choose to call them online language learning platforms (OLLPs). The decision not to foreground the social and interactive aspects of these platforms is based on the semi-structured interviews that I conducted with participants (see Chapter Four for more details on semi-structured interviews, and Chapter Six for a discussion on the use of Memrise for individual learning) as well as my own experience as a user of these platforms.

Another focus of this study is on how multilingual learners use OLLPs to learn Chinese. Mandarin Chinese is chosen instead of other forms of Chinese, such as Cantonese, because it is a language widely used not only in Mainland China, but in Southeast Asia as well where there is a significant number of Chinese inhabitants who speak the language. What is more, in East Asian countries such as Japan and Korea, Chinese characters (known as *hanzi* in China, *kanji* in Japan, and *hanja* in Korea) are widely understood. In addition to this, according to the statistics of Ethnologue, 897,902,930 people in the world speak Mandarin Chinese as their first language, and 193,880,000 people speak it as a second or foreign language (Simons and Fennig, 2017). This global appeal of Chinese learning has led to an emerging use of online technology for teaching Chinese as a foreign language. The following section presents the research questions for the thesis.

## **1.6 Research Questions**

The main research question that I am asking in this thesis is:

How do learners use resources in their repertoires to make meaning when learning Chinese in an online, self-directed context?

Everyone has his or her own repertoire which is unique to the individual. These repertoires consist of different sets of resources. In this thesis I focus on the linguistic, semiotic, online and offline resources available in the learners'

repertoires. The way 'repertoire' is used in my thesis is influenced by the idea of "repertoires as indexical biographies" (Blommaert & Backus, 2013). By adopting this biographical dimension of repertoires, rather than a socially-oriented view of repertoires as suggested by Gumperz, I am able to analyse the different sets of resources that exists in different learner's repertoire on a case by case basis. As Blommaert and Backus (2013) suggests, "[r]epertoires in a superdiverse world are records of mobility" (p.28). There may be different degrees of overlapping between different people's repertoires, but no two people share the same repertoire. I am interested in the concept of repertoire because it challenges the conventional understanding of what 'a language' is, and in turn it problematises existing understanding of bi/multilingualism as two (or more) monolinguals in one person, and therefore it rejects native-speakerism, which is a problematic construct (e.g. Leung, Harris and Rampton, 1997; García and Li Wei, 2014). For a detailed discussion of repertoires, please refer to Chapter Three of the thesis.

This study examines Memrise, an OLLP which provides multimodal resources to facilitate the learning and teaching of Chinese. The focus of the study is on two learning practices of online Chinese learning, namely learning to read and learning to write. To understand what resources learners possess, and what they do with these resources when they learn to read and write Chinese, I ask the following sub-questions:

- a. What resources does Memrise provide, and what are the affordances of these resources?
- b. What resources do learners possess, and how do they use them differently?
- c. How do learners use translanguaging to scaffold their learning to read Chinese characters?
- d. How and why do learners alternate between the use of online and offline resources when they learn to write Chinese?

The aim of the research is to map out how learners draw on their linguistic, semiotic, online and offline repertoires to dynamically, flexibly, and seamlessly move across and beyond socially constructed boundaries of communication

systems to make meaning in a critical and creative way. To achieve this aim, I draw on concepts in translanguaging, multimodality and multilingualism, all of which offer a set of analytical tools to examine the roles of linguistic and semiotic resources in an integrated way. In Chapters Two and Three, I justify the aforementioned research questions by reviewing relevant concepts and empirical studies on the topic. In the next section I give a brief outline of the possible contributions to knowledge of this thesis in three areas: empirical, methodological and theoretical.

### **1.7 Contributions to knowledge**

The objectives of this thesis are to contribute to knowledge at the empirical level, the methodological level, and the theoretical level.

At the empirical level, the thesis gives an in-depth perspective on how online teaching materials are designed and how individuals make use of the resources available on online platforms to learn. A lot of research is being done on technology and learning in school contexts (e.g. Jewitt, 2006), which is a kind of formal learning environment where students engage with technology-mediated materials under the supervision of teachers to fulfil their course requirements. Not many studies have been done on non-formal (cf. informal), out-of-class learning where learners are free to engage with learning materials in their own way, according to their *interests* (Kress, 2003, 2010; Bezemer and Kress, 2016). Furthermore, while a lot of studies claimed to be learner-centred, the fact that these studies were carried out in a classroom context, in addition to their focus on ways to use technologies to teach in the classroom, suggested otherwise. This thesis presents from the learners' perspective how they make decisions to select which resources to use to achieve a particular learning objective, such as learning to read and learning to write Chinese. To sum up, this study builds on the area of Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) and provides a new understanding of this new "sociotechnical phenomenon" (Zourou and Lamy, 2013:1).

At the methodological level, this study adopts a specific perspective of ethnography – using ethnographic tools (Green and Bloome, 1997) which allows me the flexibility to be both a participant and a non-participant simultaneously, taking advantage of using several ethnographic tools to achieve an in-depth understanding of the platforms as a participant, but at the same time being distant from it in certain parts of the study. Moreover, video-based studies are still in its infancy due to the challenges in data collection, transcription and analysis (Heath and Hindmarsh, 2002; Heath, Hindmarsh and Luff, 2010). This study attempts to use video as the main source of data to enable the possibility to analyse communication in a multimodal way.

At the theoretical level, the thesis suggests a new analytical framework which combines concepts such as translanguaging, multimodality, multilingualism, as well as a set of ethnographic tools in a unique way which complements each other in describing and analysing how the design of the multimodal environment shapes the way how people used their linguistic, semiotic, online and offline resources. The thesis also extends existing work in social semiotics, which is predominantly based on textual analysis, to examine the relationship between text and situated practices, taking into account the context of why and how the pedagogic text is made and 're-made' by the learner –*learning as transformative engagement* (Kress, 2009; Bezemer & Kress, 2016). I also attempt to reiterate for the need of a 'multimodal turn' to applied linguistics research to capture the multimodal nature of communication.

## **1.8 Organisation of the thesis**

The thesis is divided into nine chapters. The first chapter gives an introduction to the study, identifies a research gap in the existing literature, and outlines the contributions to knowledge of this thesis. This is to set the stage for the subsequent discussions and analyses of the different case studies presented in the thesis. Chapter Two reviews relevant empirical studies in the field which aims to prepare for the arguments being put forward in the later chapters. Chapter Three presents the conceptual framework of the thesis, which is informed by translanguaging, multimodality and multilingualism. The chapter explains in detail how these three concepts have shaped the whole study at a



theoretical level. Chapter Four sets out to explain the methodological approaches for the study, drawing on ethnography and social semiotic multimodality. It also presents the ethical issues that were associated with the study. Chapters Five, Six, Seven and Eight are the main body of the thesis. Chapter Five gives an overview of the resources offered by Memrise, the focal online language learning platform of this study, by means of a multimodal semiotic analysis. The purpose is to uncover the pedagogic assumptions that Memrise has, and what kind of pedagogic work is performed by each mode. Chapter Six addresses the resources used by learners in Chinese learning. I argue that while learners were given the same resource (Memrise) to learn Chinese, the way they utilised this resource is different, and that they used multiple multilingual and multimodal resources to supplement their learning. Chapter Seven illustrates how two selected learners used translanguaging to scaffold their learning of Chinese characters through the use of multimodal semiotic analysis, showing how they displayed criticality and creativity when creating multimodal texts to learn Chinese. Chapter Eight gives a detailed analysis of two learners' processes of learning how to write Chinese characters. I argue that learners used different resources to learn how to write Chinese characters and in the process of copying, they displayed multimodal signs of learning. Lastly, in Chapter Nine, I conclude the thesis by revisiting the key findings of the study and the contributions to knowledge that I have made in the study. I also address how this study can change our understanding of the language learning landscape in an era of mobility.

## **Chapter Two: Review of the Literature**

### **2.1 Chapter synopsis**

This chapter reviews literature on the theme of online self-directed Chinese learning. Through reviewing existing empirical studies in the literature, the chapter aims to provide a thorough understanding of several important ideas in the thesis: self-directed language learning, the use of OLLPs to learn or teach a foreign language, learner agency and autonomy. Furthermore, studies on Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL) are also reviewed in order to show where OLLPs situate along this spectrum. Moreover, I also introduce some features of Chinese characters, and lastly, on the use of technology to learn and teach Chinese as a foreign language. Literature on vocabulary learning with a focus on technological and cognitive approaches such as flashcards and mnemonics respectively are reviewed. Towards the end of this chapter I offer a critical and objective view on the use of technology in education. More importantly, the chapter aims to reveal the gap that exists in the literature in the field and discusses how it can fill that gap.

### **2.2 Studies on self-directed language learning**

This section offers a historic overview of the studies done on self-directed language learning. There are not many studies on this topic in the literature. Most of them address issues related to technology, motivation, learning strategies or the autonomy of learners. Seldom do they focus on the learning itself, not to mention learners' experiences of learning. Holec (1996) comments that self-directed language learning is

learning by taking one's own decisions with respect to the objectives to achieve, the resources and techniques to use, evaluation, and management over time of the learning programme, with or without help from an outside agent" (p.90)

He sees self-directed language learning as a continuum. On the extreme end of the scale, learners are entirely self-taught, without any help from other agents, such as a teacher. However, in real life, very often learners receive a variable level of support from teachers. Nonetheless, in this thesis, my assumption is

that learners receive no or minimal help from other agents, and therefore they are engaged in a 'pure' or extreme form of self-directed language learning. It has to be acknowledged that this type of learning is rarely discussed in the literature, my speculation being that because it lacks pedagogical implications that can be generalised and applied in language classrooms, where most language learning occurs, at least in the last decade.

In his article Holec outlines three prerequisites for self-directed language learning to succeed: 1) learner knows how to learn in this way, 2) there are appropriate resources for him to use, and 3) an adequate support staff is available (Holec, 1996:90). While the third point is, in my opinion, an optional prerequisite in the context of this thesis, the first two points are necessary conditions for self-directed language learning to succeed. Holec (1996) further discusses the two categories of resources that are suitable for self-directed language learning, the first being "constructed, but not pre-adapted materials", and the second is "materials to be constructed by the learner" (p.92). The importance of the second category can not be underestimated, as it is often through knowledge construction and the re-making of meaning that learning occurs (see Chapter Three for a discussion of learning as transformative engagement). He further explains that these types of materials are "raw materials which the learner uses to construct his or her own learning instruments" (Holec, 1996:92).

Rowell and Libben's (1994) study is one of the landmark studies on self-directed language learning. The study reports how thirty adult language learners learn a new language of their choice independently for a period of six months. Their diary entries were analysed to isolate the language learning strategies used by high achievers and low achievers. They found that high achievers used language creatively in context, and that they had a positive affective relationship to the task. They also concluded that high achievers "managed to overcome the paucity of exogenous input by creating endogenous input for themselves" in order to build "networks of linguistic knowledge" (p.684). The ability to show linguistic creativity requires learners to have a high level of metalinguistic knowledge between the two or even more languages in their

repertoires. This study gives us a glimpse at how multilingualism could possibly be a resource for language learning (see Chapter Three for a detailed discussion on this).

Referring to the argument made by Holec (1996) that self-directed language learning should involve materials constructed by learners, together with the point made by Rowsell and Libben (1994) on the importance of linguistic creativity, it can be seen that learning, especially in the context of self-directed learning, involves a kind of transformative engagement that requires learners to transform what they have learnt into something of their own (Kress, 2009; Bezemer & Kress, 2016). The notion of learning as transformative engagement is discussed in greater detail in the next chapter. I also present four case studies on how this is manifested in Chapters Seven and Eight.

One challenge that faces researchers in the field of self-directed language learning is to find suitable research methodologies. Unlike research methodologies used in classroom settings which have been thoroughly researched, trial and tested, self-directed language learning presents new challenges for researchers in terms of data collection and data analysis. Researchers in applied linguistics have been testing various approaches to research self-directed language learning. For instance, Murray and Kojima (2007) used a life history approach to investigate the out-of-class language learning of one Japanese learner. The authors believe that this approach “enables researchers to focus on the personal aspects of the language acquisition process”, as well as “issues related to identity and its relationship to autonomy, motivation, and mode of language learning” (p.32). This approach also allows researchers to gain an in-depth understanding of the language learning strategies that the learner used when she learnt a language on her own. It was found that the learner’s changing identities through time led to a change in her motivation, and as a result her learning strategies changed as well. Similarly, Barkhuizen, Benson and Chik (2014) suggested that multimodal narratives could be used as a research tool for visual elicitation, or as artefacts to be researched. Some examples of multimodal narrative texts suggested by

the authors include photographs, digital language learning histories, and online language learning histories.

In another autoethnographic study, Jenks (2015) demonstrated the dynamism and non-linearity of language learning by documenting his process of re-learning Korean, using only semiotic and human resources in and around the home. This is a significant study because it investigates how a language learner transforms the home environment into an informal learning space (Jenks, 2015). He demonstrated in his study how his self-directed learning is shaped by the semiotic resources around him, and also by environmental affordances. Although it could be argued that his study cannot fully represent the experience of a typical language learner as the author has a much higher metalinguistic and metacognitive awareness than most language learners due to his background as an applied linguist, it nevertheless offers a fresh perspective in looking at self-directed language learning from a language ecology perspective.

Self-directed language learning often involves learners to be able to traverse between the in-class and out-of-class environments, online and offline spaces to source suitable learning materials. Lai (2015) showed in his study of Hong Kong undergraduate students that “learners perceived in-class and out-of-class language learning contexts as affording different functions, and they acted on the affordances of the two contexts to create complementary and synergetic learning experiences across the two” (p.265). He found that students’ out-of-class learning yielded long lasting outcomes of language learning, such as bringing them closer to the language and culture of the L2, and developing a positive attitude and trajectory to the learning of the L2. More importantly, he explained that students’ perceived affordances of the potential resources they are exposed to will affect whether they use them or not, and if they decided to use those resources, their perceived affordances of these resources will also affect how they use them. Lastly, he found that students’ out-of-class learning experiences are shaped by their in-class experiences. In other words, the in-class and out-of-class boundary is just imaginary. Students bring in-class learning practices to out-of-class contexts, and vice versa. The selection of

resources, as well as the traversing between different spaces of learning, are discussed in Chapter Eight.

Another aspect of self-directed language learning is distance language learning. It is not a new phenomenon. Decades ago more traditional forms of distance language learning involved the use of print, audio and video materials, and now, technology allows these materials to be digitised and be spread to a wider audience. There are many definitions of distance learning over the years (Williams, Paprock and Covington, 1999; Moore and Kearsley, 2012; Shelley, 2013). For instance, Shelley (2013:207) defined it as an educational system in which “learners may study in a flexible manner in their own time, at the place of their choice and without requiring direct contact with an instructor”. Most definitions of distance learning emphasise the distance between the teacher and the learner in terms of time and/or space (White, 2003).

Technology enables more possibilities for self-directed language learning at a distance. In recent years, language learning applications ('apps') are an important way for people to learn languages. Kim and Kwon (2012) examined 87 ESL mobile apps and found that the major focus of these apps was on building vocabulary, followed by reading, grammar, listening, speaking and writing. This is not a surprising finding as the affordances of mobile phone screens is for showing short, bite-sized input, but not for showing long passages or complicated tasks. Moreover, most apps that they examined focus on receptive skills and they tend to be form-focused. This finding is similar to the OLLP being examined in this thesis (refer to Chapter Five and Six for details). In terms of teaching methodology, the most frequently used approach is the task-based approach, followed by audio-lingual approach. Their research also found that sound, followed by video, were the dominant modes used in these ESL learning apps. Chik (2015b) analysed 124 “App Descriptions” for English language learning apps available on App Store. She found that a significant number of apps examined advertised themselves as “fun”, which was mainly achieved by repeated drilling. This finding is also similar to the OLLP featured in this thesis (see Chapter Five and Six).

In the last few years, Language MOOCs (LMOOCs in short) have also gained in popularity. MOOC stands for Massive Open Online Courses. As suggested by its name, the affordances of LMOOCs are that they are able to reach a massive number of people worldwide. LMOOCs resemble academic courses in the sense that they often have structured content and clear learning objectives which may lead to an official certification by the organising institute (Bárcena and Martín-Monje, 2015). While LMOOCs have potentials to transform language learning dramatically because of their ability to reach a large number of learners, Bárcena and Martín-Monje (2015) point out the challenges LMOOCs face. The heterogeneous nature of students, together with the massive number of students, present enormous challenges to course developers in order to create motivated language learning environments which can encourage students to be proactive learners.

Self-instructional broadcast materials are also a popular means of out-of-class language learning, which involves the use of radio and television programmes specially designed for the purpose of language learning (Umino, 1999; 2005). Umino (1999) found that although these materials are not able to let learners control the content and the pace of learning, they nevertheless provide learners with a structure to learning. For instance, they are broadcast at regular intervals so that learning is done regularly. It is seen as conducive to language learning by learners. Learners also expressed that through these broadcasts they were exposed to authentic uses of language. To cope with the difficulties associated with the materials, learners have to be active participants in their learning by deploying strategies to overcome the problems they faced.

In Deepwell and Malik's (2008) study of UK university students' use of self-directed learning technology, it was found that while students responded positively to the use of self-directed learning technology outside class, they still placed a high value on face-to-face learning. Students were found to be highly reliant on the lecturer's guidance of the direction of their independent, self-directed studies. In particular, they placed great emphasis on face-to-face feedback from the lecturer. The authors concluded that "[t]he use of technology is pervasive, but the use of technologies for learning is more problematic and

there is a need to clarify how students are using them successfully and creatively” (p.13). This study reveals the challenges faced by students in self-directed learning, and that the use of technology is not a panacea to solve all the problems faced by students and teachers.

A number of studies focus on the evaluation of materials for the purpose of self-directed language learning (e.g. Jones, 1993; Hayo and Lewis, 2005; Chapelle, 2009). They attempt to come up with a list of criteria that self-instructional materials should possess in order to serve their purpose, often through consulting second language acquisition theories or evaluating them based on the level of autonomy that these materials give to learners. However, they are often evaluated from the teachers’ perspective. Not enough focus is put on the learners and the learning process itself.

Not only do people learn a language from materials designed with a pedagogic purpose, increasingly more and more people engage in informal, out-of-class language learning in unconventional settings. For instance, Benson (2015) analysed comments on YouTube videos involving Chinese-English translanguaging to show evidence of learning through the discussions about language and culture. Similarly, Chik (2014) investigated how English learners studying in a university in Hong Kong learnt English through digital gaming. Language learning opportunities do not only exist inside the classroom; increasingly learners are able to take advantage of the affordances provided by out-of-class contexts to learn languages. Similarly, Leppänen and Piirainen-Marsh (2009) found that digital gaming is a space where language users engage in bilingual language practices and possibly, they “interact with and appropriate linguistic resources made available through different media forms and sometimes adopt them as part of their repertoires” (p.266).

Thus far I have reviewed studies related to the broad area of self-directed language learning. Through these studies, it is clear that while self-directed language learning is not something new to the field of language learning, it is undoubtedly being gradually transformed by the increased use of technology. In the next section I turn the focus to studies done on OLLPs.



### 2.3 Studies on OLLPs

In this thesis, I see OLLPs as a form of self-directed language learning that can alleviate some challenges faced by learners when they learn a language on their own, for instance, the lack of structure. Chik and Ho (2017) found in their replication study that while participants would like to exercise their autonomy in learning by choosing authentic, informal resources to learn a language, such as newspapers, magazines, as well as popular cultural texts, in their actual selection of resources, all of them showed a high reliance on resources such as OLLPs that provided more structure to their learning, as opposed to a 'free' and 'naturalistic' style of learning that participants intended to do at the start of the study.

One characteristic aspect of OLLPs is their social networking feature, which is defined as websites that allow an individual to: 1) construct a public or semi-public profile within a bounded system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system (boyd and Ellison, 2008:211). The main difference between typical social networking sites, such as Facebook, and OLLPs is that the former serve as social networking platforms with no explicit focus on language learning, while the latter are social networking platforms with a focus on language learning. This affordance of OLLPs dominates the literature. However, while it was intended to be a positive affordance for language learning, literature suggests that a more critical view has to be taken to examine the effect of social networking features on language learning.

For instance, Stevenson and Liu's (2010) study explored how learners make use of the social networking features of three selected OLLPs, *Palabea*, *Livemocha*, and *Babbel* to fulfil their goal of learning a new language, using online surveys (with current users of *Babbel*) and usability testing methods. They found that out of the seven users who participated in the study, while they were interested in the social elements these platforms offered, they still valued

traditional means of language learning, such as a structured curriculum, more highly than the social aspects. They stated their distaste of any element within the platforms that reminded them of popular social networking sites, such as Facebook. They also expressed concern over the quality of user-created content. While it can be argued that the platforms have changed over the years since the article was written, this view of putting traditional means of learning above social interactions is still prevalent, and the concern over the quality of user-generated content still prevails. These comments were also mentioned by learners featured in this study (see Chapter Six).

In another study, Brick (2011) followed seven undergraduate students with different first languages to investigate their experiences of using *Livemocha* to learn a language of their choice. The study used log sheets and group interviews to evaluate students' use of *Livemocha* based on several criteria: accessibility and ease of use, syllabus, activities, and relationships with other participants. The results show that while *Livemocha* was easy to use, participants complained about the quality of the materials on the platform as there was no explicit focus on grammar. Also, while participants liked the immediacy of the feedback, some found the responses too critical. It was also found that all participants in the study registered on *Livemocha* using their real names instead of using pseudonyms. While *Livemocha* afforded the possibility of tandem learning with native speakers of the target language, some participants had unpleasant experiences. Nevertheless, Brick (2011) explained that while this was an area of concern, it should not be a reason to be used against using these platforms, and students are expected to judge using their common sense. He then concluded that platforms such as *Livemocha* provide unprecedented opportunities for language learning and more research has to be done in this area.

Harrison and Thomas's (2009) study examined how Applied Linguistics students in a Japanese university used *Livemocha* to learn a foreign language of their choice, using the framework proposed by Boyd and Ellison (2008): Impression management and friendship management, networks and network structure, and the bridging of online and offline social networks. They used

ethnomethodology in their research, in which they observed students in the classroom while they were using *Livemocha* through classroom monitoring and 'think-aloud' sessions in five bi-weekly classes. They found that the use of Social Network Sites (SNSs) such as *Livemocha* helped language learners explore new relationships, and that the mediation between learners and the site, as well as between learners, has to be constructed by learners themselves in a trial-and-error process. The authors called for more longitudinal studies to be done in this kind of learning environment.

Another affordance of OLLPs is that it allows learners to communicate with 'native-speakers' of the target language. However, it is up to individual language learners whether they want to engage with 'native-speakers'. Lloyd (2012) studied language learners' 'willingness to communicate' with language partners through *Livemocha* in relation to their personality types and their familiarity with using social media. The author followed eight undergraduate students' use of *Livemocha* for 10 weeks, collecting data through questionnaires, log sheets, online observation and focus group interviews. The data regarding the use of *Livemocha* and 'willingness to communicate' was compared with students' personality types. It was found that students with a tendency towards extroversion engaged in more synchronous communication and students with a tendency towards introversion engaged in more asynchronous communication. This study shows that it is not a given that learners engage with 'native-speakers' when they use OLLPs. Other factors such as personality types are at play.

The lower-than-expected tendency to socialise and make new connections through social network sites is also mentioned in boyd and Ellison's (2008) article. By reviewing existing research, they found that most people use social network sites to support pre-existing social relations rather than making new relations online, even on social network sites that are not primarily made for education purposes such as Facebook. This finding is also in line with the use of OLLPs, which are designed for educational purpose. When users are given a choice, they would prefer to engage in traditional, structured content that they

can use on their own rather than to connect with native speakers of the target language (Stevenson and Liu, 2010).

One theme that has emerged is the learners' preference of 'traditional' means of language learning, even though they are fully aware of the fact that they are engaged in a 'new' kind of online learning practice (Deepwell and Malik, 2008; Stevenson and Liu, 2010; Brick, 2011). Their embrace of more explicit instruction, as well as the low tendency to communicate with 'native-speakers' that are previously unknown to learners can also be found with the learners featured in this thesis. The high regard for structures in learning is also seen in the study in Umino (1999). This issue is addressed in greater detail in the later chapters, particularly in Chapter Six where I discuss learners' preference for a rote learning and drill approach to learning vocabulary, and their lack of interest to interact with 'native-speakers', and also in Chapter Eight where I illustrate with a case study how learners bring in offline resources when learning in an online environment.

So far, research has been focusing on the usability of these websites (Clark and Gruba, 2010; Stevenson and Liu, 2010; Brick, 2011; Zourou, 2012). While the user experience is important in analysing this type of platforms, a more fundamental analysis of the semiotic arrangement of these platforms is also required to understand how the platforms negotiate level of expertise with learners. Chik (2015) compared two OLLPs, *Duolingo* and *Busuu*, by using positioning theory, a theory from psychology, to understand how they position themselves through making various claims about language learning, and at the same time 'other-positioning' learners through these claims (Davies and Harré, 1990; Chik, 2015a). She identified discursive devices, both textual and semiotic, that the platforms used to promote various positionings and conceptualisations of language learning. Her study illustrated why a multimodal semiotic analysis of these platforms is crucial to understand the language learning beliefs that these platforms promote, and how learners are put in a position to accept these beliefs. Chapter Five of the thesis discusses these issues by analysing the 'About Us' page of Memrise.

While a lot of studies on OLLPs focused on using it to supplement classroom language learning, only a few studies emphasised on individual, self-directed language learning. Clark and Gruba's (2010) autoethnographic research on *Livemocha* reflected that the flaws in site design have led to some pedagogical impediments that have negative effects on language learning. This is again a usability study of these platforms. One limitation of their study is that the authors are all experienced language teachers, and it could be assumed that they have higher metalinguistic awareness than average language learners. Metalinguistic awareness is an important factor in this kind of self-directed language learning as students have to be aware of the structure of the language to find patterns, without any help from a teacher.

One significant limitation of the studies reviewed in this section is that the students involved in them are mostly new to the platforms that are being researched, and as a consequence, the results may not truly reflect how these platforms are being used in the real-life contexts of more experienced everyday users. Moreover, as White (2003) noted, a lot of research done in this area are related to course provision, with only little attention on learners. Another limitation, an even more obvious one, is that most of these studies are school-based. That is, the participants are engaged in online language learning because they are part of a research 'experiment' being conducted by the author(s) of the study. In Chapter Four of the thesis, I explain in detail how I approached the platform to look for participants who were already using it as part of their routine, and in Chapter Six I present an overview of the learners' backgrounds, including their experiences of using these platforms, as I believe that it makes a difference in terms of how they utilise the resources presented to them by the platform.

The following sections review the two key fields of literature that involve Technology-Assisted Language Learning (TALL), they are Computer-Assisted Language Learning (CALL) and Mobile-Assisted Language Learning (MALL).

## **2.4 Computer-Assisted Language Learning (CALL)**

CALL and OLLPs are different in a number of ways. CALL generally refers to the use of computers to assist language learning. It can include the use of offline resources such as CD-ROM, online resources such as websites, or other computer softwares that deliver content for language learning. OLLPs can be considered as a kind of CALL, but it is widely understood to be referring to non-formal language learning using online resources, with a social component. OLLPs run on specially designed platforms developed by companies (Zourou, 2012), and most of the time they offer more than one language on their platform. They offer a structured learning pathway for learners, which to a certain degree resembles a textbook. That is why they offer a non-formal learning environment (cf. informal learning).

The trend of using computers to assist language teaching and learning started in the 1960s. Throughout the years the pedagogical approaches associated with CALL has been changing as the socioeconomic environment changes. Warschauer and Healey (1998) defined three main stages of CALL: behaviouristic CALL, communicative CALL, and integrative CALL. In particular, behaviouristic CALL is associated with the earlier version of CALL, and integrative CALL is normally associated with the use of Web 2.0 technologies that are commonly used by students now.

### *2.4.1 The changes in CALL paradigms*

The changes in CALL paradigms in recent decades reflect the changes in the social, economic and cultural aspects of the world. As the world is becoming more globalised, a more flexible model of CALL is needed. For instance, there is a change in agency in contemporary CALL. The role of teacher has changed, from the traditional view of seeing teacher as the source of knowledge, to the contemporary view of seeing teacher as 'facilitator of learning' (Warschauer and Healey, 1998). It demands more from teachers as not only do they have to transmit knowledge to students, but they also have to guide students to take advantage of the technology available. The change in circumstances also calls for a change in students' attitude. Students now have to explore and create their own knowledge of the language and to fit the new knowledge with the prior

knowledge that they have (Warschauer and Healey, 1998). Harrison and Thomas (2009) even argue that the incorporation of social networking sites in language learning, as in the case of OLLPs, will lead to a “deconstruction of traditional classrooms” (p.121). I do not entirely agree with this view. I would take a more moderate view that the roles of teachers and students will change because of technology, as language learners are now seen as ‘prosumers’, i.e. as “active agents and users of the target language” who are actively involved in the teaching and learning process (Thomas, Reinders and Warschauer, 2013:7). In addition to this, there is a move away from focus on form to a focus on communicative competence by the use of authentic materials.

#### *2.4.2 Studies on CALL*

CALL has been a well-researched field for decades. Most studies on CALL focus on the following areas:

- Technology (e.g. Goodfellow and Lamy, 2008)
- Pedagogy (e.g. Felix, 2005; Rosell-Aguilar, 2007)
- Materials design and evaluation (e.g. Chappelle, 1998, 2009; Reinders & Lewis, 2005)
- Learner autonomy and motivation (e.g. Ushida, 2005; Alm, 2006; Healey, 2007; Lai, 2013; Terhune, 2015)
- Historical, theoretical and cultural aspects of CALL (e.g. Knobel et al., 1998; Warshauer, 1998, 2000; Warshauer & Healey, 1998; Warshauer & Grimes, 2007; Levy, 2008; Selwyn, 2011; Thorne & Smith, 2011; Buendgens-Kosten, 2013;)
- Research methodology (e.g. Chun, 2012; Golonka et al. 2014)

The list above is by no means exhaustive. I have briefly outlined the different fields of research within CALL as I would like to highlight the fact that while OLLPs have certain similarities with CALL, they have evolved in different directions. I do not wish to review these studies in detail because they are different from this thesis in terms of the context and the research questions that they seek to answer. For me, with the exception of learner autonomy, the other research foci are fairly teacher-centred. This situation is similar to the research done on self-directed language learning that I reviewed in the first part of the

chapter. Very few studies attempt to investigate the use of technology from the learners' perspective, to describe and analyse the actual learning process that occur while using these technologies (White, 2003; Golonka et al. 2014). These studies are also classroom-focused, which do not represent a realistic picture of how and why these technologies are used by learners, not to mention the specific resources that learners employ to scaffold their learning. These are all important questions to ask. It is perhaps a limitation of the technology that it is almost impossible to carry out research on students' daily use of language learning technologies. However, things are starting to change as language learning is going mobile.

## **2.5 Mobile-Assisted Language Learning (MALL)**

Although this thesis does not focus on MALL, it is still a worthy subject to discuss, especially in terms of its implications for language learning.

MALL resembles CALL in a lot of ways. Both are about the use of technologies to assist language learning. The use of the word 'assisted' in both MALL and CALL suggests that technology plays a supplementary role to language learning, although it is not always true, as it is explained in this thesis. This view is reflected in a lot of MALL and CALL studies where the focus is on how teachers can bring technology into the classroom, or how teachers can encourage students to engage in out-of-class learning using technology. A lot of the focus is on the affordances of the technology, what it enables learners to do.

As the names suggest, the most obvious difference between MALL and CALL is 'mobile' and 'computer'. In the CALL context, 'computer' generally refers to either a desktop computer or at best a laptop computer. They are considered as "fixed technologies" (Pegrum, 2014). In the MALL context, 'mobile' generally refers to mobile devices, and portable devices are often excluded. For instance, examples of mobile devices include smartphones, tablets, e-readers, etc., whereas portable devices are devices such as laptop computers. In Pegrum's view, the main difference between mobile and portable devices is that the



former can be used continuously from Point A to Point B, whereas the latter can be used in Point A and Point B, but not continuously. From the point of view of Pachler, Bachmair and Cook (2010), what counts as mobile is the device's ability to penetrate into people's everyday lives. Kukulska-Hulme (2005a) focuses on the functions performed by these devices, which are small enough to carry around and are able to be used for communication and collaboration.

MALL research, unlike CALL research, attempt to move away from a focus on technology, to a focus on learners. As Pachler, Bachmair and Cook (2010) explain,

Mobile learning – as we understand it – is not about delivering content to mobile devices but, instead, about the processes of coming to know and being able to operate successfully in, and across, new and ever changing contexts and learning spaces. And, it is about understanding and knowing how to utilise our everyday life-worlds as learning spaces. Therefore, in case it needs to be stated explicitly, for us mobile learning is not primarily about technology (p.6)

In a similar fashion, Pegrum (2014) elaborates his concept of mobile learning that it should include the mobility of devices, mobility of learners, as well as the mobility of the learning experience. This view is also expressed by Kukulska-Hulme (2005b). This idea of utilising our “everyday life-worlds as learning spaces” is growing in importance, as it liberates the act of learning from the confines of a classroom, or even an institution. This is a recurring theme that is revisited repeatedly in the rest of the thesis.

Another feature that marks CALL and MALL apart is the format of learning. Traxler (2010) describes their difference as follows: “desktop technologies operate in their own little world while mobile technologies operate in *the world*” (p.5; original emphasis). This highlights the issue of the mobility of the devices, and thus how penetrable they are in learners' daily lives.

Although the learners reported in this study used laptop computers to learn, in this thesis, I see mobility as a broader concept which is something that allows learners to learn in “brief episodes” that can occur “in the background” of their lives (Pegrum, 2014). I take the view that mobile device is something that has

the ability to penetrate into people's everyday lives (Pachler, Bachmair, & Cook, 2010). In the current context, laptop computers, although physically less mobile than smartphones, fulfill the above mentioned criteria. As a result, I made the decision to consider the use of laptop computers as a kind of mobile learning. This decision was also made due to some methodological constraints which are discussed later in Chapter Nine.

As Pegrum (2014) comments, MALL, and I believe CALL as well, are “fuzzy concepts” that are difficult to be differentiated in a clear way:

It may be best, then, to view mobile learning less as a category than a *fuzzy concept* which allows for different degrees of mobility of the devices, the learners and the learning. The greater the overall degree of mobility, the more conspicuous the example of m-learning. By extension, MALL is also a fuzzy concept, referring to language learning scenarios in which varying degrees of mobility pertain to the devices, the learners and the learning experience itself. (p.16; original emphasis)

It is perhaps more helpful to see CALL and MALL as located at two ends of a scale. The more mobile the devices, the learners and the learning are, the closer it is to MALL, and vice versa. It is difficult, if not impossible, to draw a rigid line between the two. It is for the same reason that I do not wish to categorically situate this thesis as a study belonging to CALL or MALL, as I do not think it is a helpful distinction. As far as I am concerned, this thesis contains elements of both, which is explained in the later chapters of the thesis.

In the next section, I discuss how learner agency and autonomy are important in the study of online language learning.

## **2.6 Learner agency and autonomy**

Learner agency is an important theme throughout the research on self-directed language learning. Ahearn (2001) defines agency as “the socioculturally mediated capacity to act” (p.112). In their study of L1 Finnish speakers' out-of-class learning of English and Swedish, Kalaja et al. (2011) compared and contrasted students' learning of the two languages at school and out of school. While students learnt similar levels of Swedish and English at school, it was

found that students used more semiotic and cultural resources, such as television, radio, music, to learn English in out-of-class contexts. This has to do with students' conceptualisations of the two languages, and how likely they were going to use these two languages in their daily lives. The fact that students actively sought opportunities to learn English outside of class but not Swedish indicated that these learners were influenced by their beliefs about English and Swedish, which affected how active, or how aware they were of the semiotic and cultural resources that existed around them. As Kalaja et al. (2011) commented, "L2 learners are no longer viewed as individuals working on their own to construct the target language, but very much as social agents collaborating with other people and using the tools and resources available to them in their surrounding environment" (p.47). In a similar fashion, Hull and Katz (2006) argued that "people can develop agentive selves, using the unique repertoire of tools, resources, relationships, and cultural artifacts [...] that are available at particular historical moments in particular social and cultural contexts" (p.47). Moreover, not only does learner agency help learners to take control of their learning, it can also help them to imagine a better multilingual identity. As Pavlenko and Lantolf (2000) explained,

Ultimate attainment in second language learning relies on one's agency...While the first language and subjectivities are an indisputable given, the new ones are arrived at by choice. Agency is crucial at the point where the individuals must not just start memorizing a dozen new words and expressions but have to decide on whether to initiate a long, painful, inexhaustive, and, for some, never-ending process of self-translation (p.169-170).

In other words, there seems to be a link between the sense of agency experienced by learners and the successful mastery of a language. In this thesis, I take the view that learners' selection of the resources in their repertoires is a realisation of their agency. Similar to the Finnish students mentioned in the Kalaja et al. (2011) study, the learners featured in the thesis were given the same resources to learn Chinese to start with. Their agency as a learner was manifested by their use of the repertoire of tools and resources that they possessed in addition to the use of the platform (see Chapters Seven and Eight).

As Vandergriff (2015) explained, while formal language learning in classrooms could potentially deprive learners of the opportunity to exercise their agencies through controlling the learning content and process, OLLPs, on the other hand, have the affordances to maximise agency by providing a non-formal language learning environment in which learners can choose what to learn from a range of options available. In other words, online platforms offer “the tools for decentralizing control and distributing authority in a way that promotes learner agency” (p.173).

Another important idea that is highly relevant to this thesis is learner autonomy. While learner agency is aligned with the sociocultural perspective, learner autonomy is an idea commonly associated with the field of psychology, although it could also be viewed from the technical and political aspects (Benson, 1997). The concept of autonomy has been around for more than 30 years, but only in the last decade that the attention has shifted from a focus on teachers to a focus on learners. Holec (1981) defined learner autonomy as “the ability to take charge of one’s learning” (p.3). A high degree of learner autonomy is widely understood to be the situation in which learners have the sense of freedom and independence to take control of their learning, whether they are in classroom-based contexts or in out-of-class contexts. Benson (2008) discussed autonomy in learning from the western philosophical concept of personal autonomy. Through his review of different schools of thought on personal autonomy, he came to a conclusion that autonomy is a capacity that has to be developed by means of adequate education, a view also suggested by Holec (1981) that autonomy has to be acquired. Benson (2008) then raised the question of “What kinds of learning best lead towards the goal of personal autonomy?” (p.20), and attempted to answer it from both the teachers’ and the learners’ perspectives. Of particular relevance here is the learners’ perspective, which is “contextualized within particular experiences of learning and life” (p.26). While Little (2007) was critical of Holec’s (1981) definition of autonomy due to the fact that Holec seemed to have separated language learning with the development of autonomy into two distinct objectives, Benson (2008), by drawing on his own experience of learning Cantonese while he was living and

working in Hong Kong, found a connection between learning the language and the enhancement of his personal autonomy.

In recent literature, it seems to me that autonomy, viewed from the learners' perspective, has a broader definition which extends to learning beyond the classroom, as seen in the quote below:

From the learners' perspective...autonomy is primarily concerned with learning, in a much broader sense, and its relationship to their lives beyond the classroom (Benson, 2008:15)

From learners' perspective, taking control of their learning is not necessarily confined in the learning which happens within the school or institution, it is also related to their capacity to use the target language beyond the classroom (Benson, 2008; Nicolaidis, 2008).

Learner autonomy is a dynamic concept which is constantly evolving. For instance, in a recent study by Chik and Ho (2017), they expanded the conversation of autonomy and discussed the effect of life transitions on learner autonomy in a self-directed learning context. They found that as learners move from one life stage to another, i.e., from university life to working life, they became more prudent in their choice of resources, which was shown by their preference on non-formal materials (e.g. OLLPs) which are structured, over informal authentic materials found on the Internet (e.g. YouTube videos), which are less structured. This finding is considerably different from the same study done five years ago, when the learners were still university students, in which they had the luxury to experiment with different informal, authentic resources. Indeed, this study points to the challenges faced by adult learners in terms of wanting to be autonomous on the one hand, and managing life commitments on the other in the process of learning a new language. As Chik and Ho noted:

With increased commitments in life, to learn a new language as an adult requires crafting personal space and allowing the learning process to become routine. Adult learners must have the space to learn in safe and comfortable zones, but they also need the luxury of time to window-shop for popular cultural texts or leisure activities to personalise their language learning (Chik and Ho, 2017:170)

The above quote resonates with my own experience as an adult language learner, as well as the learners featured in this study (as reflected in the semi-structured interviews which are discussed in Chapter Six). Conventional belief would suggest that the use of technology is directly associated with a high degree of autonomy. However, Benson and Voller (1997) argued that although self-access and self-instruction seem to afford a greater degree of learner autonomy than classroom instruction, there is actually very little evidence that they alone are sufficient to give learners a high degree of autonomy. They found that learners engaging with self-instructional modes of learning without adequate support will “tend to rely all the more on the directive element in the materials that they use” (p.9). The relation between learner autonomy and self-directed learning can thus be summarised in the following quote:

[Self-directed learning] describes the situation in which the learner is totally responsible for all of the decisions concerned with his learning and the implementation of those decisions. In full autonomy there is no involvement of a ‘teacher’ or an institution (Dickinson 1987: 11)

As Lamb (2008) suggested, the concept of learner autonomy gained attention in recent decades partly due to the belief that self-directed learning would become increasingly popular, and learning may be carried out without any involvement from a teacher or an institution. Nevertheless, it does not suggest that learner autonomy is only important in such kind of context. While the idea that learners are seen as individuals who have different learning needs and goals underlies much of the literature in learner autonomy, however, a distinction between ‘autonomy’ and ‘independence’ shall be made clear. As Deci and Flaste suggested:

Independent means to do for yourself, to not rely on others for personal nourishment and support. Autonomy, in contrast, means to act freely, with a sense of volition and choice. It is thus possible for a person to be independent and autonomous (i.e., to freely not rely on others), or to be independent and controlled (i.e., to feel forced not to rely on others) (Deci and Flaste, 1996:89)

A lot of studies on CALL and learner autonomy seem to hold the assumption that learner autonomy was about learners being ‘independent’ – learning

without the supervision of teachers, as in the case of self-access learning centres in a lot of schools. They did not address the true meaning of 'autonomy', that is, to be able to make meaningful choices upon their own will. Also, a lot of research in learner autonomy are conducted in schools or university settings, which may lead to the possibility that students are being "independent and controlled". This study is conducted in an entirely out-of-class context, meaning that learners are more likely to be "independent and autonomous".

From the above discussion, it can be seen that both learner agency and autonomy are important for learning to occur in online language learning platforms, a self-directed learning context. It can be seen that while the design of the learning environment is important to provide a considerable degree of autonomy to learners, ultimately, it was the learners themselves who have to make decisions based on what was offered to them. Chapters Six, Seven and Eight of this thesis focus on learners as agentive individuals and how they make learning decisions using the resources available to them. In the next section, I turn the attention to examine some basic characteristics of the Chinese language.

## **2.7 A brief introduction to the Chinese Language**

The growing importance of China both politically and economically has attracted more and more people from over the world to learn its language. The teaching of Chinese as a foreign language has a long history, which can be traced back to the Tang Dynasty. Nevertheless, the research of teaching Chinese as a foreign language has only gained impetus until the 20<sup>th</sup> century (Xing, 2006). Among the different dialects used in China, Mandarin, also called *Putonghua*, is a dialect widely used not only in mainland China, but in Southeast Asia as well where there is a significant number of Chinese inhabitants. In East Asian countries such as Japan and Korea, Chinese characters are widely understood. In addition to this, according to the statistics of Ethnologue, 897,902,930 people in the world speak Chinese as their first language, which is by far the language with the most number of first language speakers (Simons, and Fennig, 2017). This global appeal of Chinese learning has led to an emerging use of online

technology for teaching Chinese as a foreign language. I recognise that 'Chinese' is often used as an umbrella term to refer to the dialects spoken by people of Chinese origin. However, for the sake of simplicity, in this thesis I use the word 'Chinese' to refer to Mandarin, the most widely spoken dialect among the Chinese community.

In East Asian countries such as Japan and Korea, Chinese characters (汉字), known as *hanzi* in China, *kanji* in Japan, and *hanja* in Korea, are widely understood. The term refers to the written form of the Chinese language. Chinese characters are normally regarded as logographic writing, which is different from alphabetical writing (e.g. English, French, German, etc.), as Chinese writing is derived from graphs whereas alphabetical writing is derived from syllables (Xing, 2006). Although there is no consensus as to the origin of Chinese characters, most researchers and lexicographers accept the six principles (六书) of constructing Chinese characters suggested by Xu Shen (许慎), a philologist during the Han Dynasty. The six principles are: pictographic (象形), indicative (指事), ideographic (会意), picto-phonetic (形声), mutually interpretive or notative (转注), and phonetic loan (假借). There is a distinction between traditional Chinese characters and simplified Chinese characters. The former is widely used in Hong Kong and Taiwan, while the latter is widely used in mainland China. In this thesis I adopt the simplified Chinese characters, as it is the writing system that most learners of Chinese expect to learn.

While most Chinese teachers agree that understanding the structure of the characters and its relationship to sound and meaning is the first step in character teaching and learning, there is no consensus on how it should be done in practice (Xing, 2006). To further complicate the matter, it is not easy to define what a Chinese character (字, *zì*) is, as it does not refer to the smallest meaningful unit. Morpheme is a better term to refer to the smallest meaningful unit known as radicals in Chinese. Nevertheless, to simplify things, the most widely used definition for a character is that it is "an independent logograph (i.e. symbol) composed of different strokes and having its own meaning" (Xing, 2006:107).



To understand the composition of a Chinese character, one has to understand the smallest meaningful unit, the radicals (部首, *bu shou*). It refers to the “semantic component of characters” which is derived from “pictographs that signal the meaning of a given character” (Xing, 2006:107). Learning radicals is crucial for any learners of Chinese as most Chinese characters consist of one or more radicals. As Xing (2006) pointed out, “[t]he ability to read a character involves not only an understanding of the phonetic component but also an understanding of the semantic component of the character” (p.107). Successful acquisition of Chinese characters requires the acquisition of all these three properties: pronunciation, form, and meaning. Due to the vast number of radicals in the Chinese language, it is almost impossible for learners, or even the ‘native-speakers’ of the language, to know all of them. It is often suggested that learners should be taught the most productive radicals first, i.e. the ones that are used most often. The recognition of radicals is important because it allows learners to make educated guesses when they see a new character (Xing, 2006).

As for the pronunciation, Chinese is a tonal language with four tones (声调, *sheng diao*), which sets it apart from other Indo-European languages. Below are listed the four tones, the pitch, the standard symbols to indicate them, and the corresponding Chinese character, using the sound ‘ma’ as an example:

Tone 1: high level (mā 妈) which means ‘mother’

Tone 2: middle rising (má 麻) which means ‘hemp’

Tone 3: low falling rising (mǎ 马) which means ‘horse’

Tone 4: high falling (mà 骂) which means ‘curse’

(Xing, 2006:87)

The system shown above is a standard romanisation system used in China, with one-to-one grapheme-phoneme correspondences (Bassetti, 2006). This system is known as *Hanyu Pinyin* (Chinese phonetic transcription system), or in short, *pinyin*. It is the standard system to transcribe Chinese characters based on Mandarin pronunciation (Li, 2017). Pinyin is used a learning aid to master

the pronunciation of Chinese characters, the ultimate goal being that learners are able to read a Chinese character aloud, even without the help of pinyin symbols. For people whose first language is not Chinese, learning Chinese is challenging due to its differences from other languages (see Li (2017) for a detailed discussion of the challenges of learning Chinese). This partly contributes to the reason why a lot of learners turn to the use of technology.

## **2.8 Using technology for learning Chinese**

The usual setting for Chinese learning is in the language classroom. However, thanks to the advancement in technology, an increasing number of people can now choose to learn Chinese using technology so they can fit learning with their busy schedule.

A study conducted by Kan, Lan, Hsiao, and Yang (2010) investigated the teaching of Chinese through the use of Second Life, a virtual environment where teachers and students interacted as avatars. Three approaches were used in their pilot study: functional-notional approach, the audiolingual method, and total physical response. They found that all the three approaches worked effectively and learners were able to follow the instructions given by the teacher avatar and responded accordingly. However, as the learners could not see the face and mouth movement of the teacher, it was challenging for them to acquire the pronunciation correctly.

Another study conducted by Henderson, Henderson, Huang, and Grant (2009) is a quantitative study involving 100 university students at a university in Australia who were in a Chinese language and culture class. Students attended a lesson on ordering food in a Chinese restaurant in Second Life and were asked to work collaboratively to select appropriate dishes for the 'customers'. The result of the questionnaires shows that there is a statistically significant increase in students' self-efficacy in using Mandarin Chinese in real life after attending the class in Second Life.

Other social networking sites, such as Ning.com, are also used to supplement Chinese teaching. In Yang, Crook and O'Malley's (2014) study, they made use

of the affordances of social networking sites to create a stimulating and supportive context for students to learn Chinese in an after-school Chinese class in a secondary school in UK. Students were invited to voluntarily participate in discussion forum, write blog posts, and to comment on each other's posts. In this study, the teacher did not put any materials on the social networking site. It was solely used as a platform to create a sense of relatedness between the teacher and the students, and as a platform for students to initiate questions so as to increase the chance for the teacher to spot learning opportunities through students' contributions.

Only a handful of studies touch upon the use of mobile technologies to learn Chinese. For instance, Mason and Zhang (2017) investigated the use of mobile apps to learn Chinese characters. They found that most of their participants, who were international students studying in China and learning Chinese at the same time, used at least one app to learn Chinese characters, and learning from apps constituted most of their studying time. They also found that students often supplemented learning with different digital resources. Through conducting interviews with students, the authors also found that students had low awareness of the functions that mobile apps provide, possibly because of the lack of support and training, as well as the freemium nature of the apps.

The above studies are some examples of Chinese learning in a school setting, albeit not taking place in an actual classroom. Nevertheless, most of them are still part of an institutionalised curriculum that students have to take part in as part of their course. Chinese learning in truly out-of-class settings is seldom researched, so this thesis aims to start a conversation to draw attention to this aspect of Chinese learning which is often overlooked.

## **2.9 Learning of vocabulary**

The sections above focused on language learning in general. In this section I would like to narrow the focus to examine vocabulary learning, an activity that participants in this thesis frequently engaged in.

Vocabulary learning involves the use of different kinds of strategies, such as the use of word parts, bilingual dictionaries and flashcards. Of particular focus in

this thesis is the use of flashcards, coupled with the use of mnemonics to assist in vocabulary learning. Flashcards have been used for vocabulary learning for a long time. According to Nation (2001),

[flashcards create or strengthen] the formation of associations between a foreign language word form (written or spoken) and its meaning (often in the form of a first language translation, although it could be a second language definition or a picture or a real object, for example) (p.296)

From the use of physical flashcards, to the use of online flashcards such as *Quizlets*, it has evolved but its primary purpose remained unchanged: to act as a mediator so that learners have to put in extra effort to guess or recall the meaning of a word, which can possibly result in faster and longer retained learning (Nation, 2001). Flashcards also serve the function of self-testing (Wissman, Rawson and Pyc, 2012). Learners typically write (or type) the target word on one side of the card, and the L1 translation of the word (or a picture of the object, any kind of prompts in general) on the other side of the card. Then learners are to go through the stack of cards looking at the target word and retrieve the meaning of the word. Having to put in effort in the retrieval of the target word is seen to be more effective than simultaneously seeing the target word and its meaning (Landauer and Bjork, 1978, cited in Nation, 2001). Flashcards present vocabulary in a paired-associate format in which “target items are presented outside meaning-focused tasks, and learners are asked to associate the L2 word form with its meaning, usually in the form of a first language (L1) translation, L2 synonym, or L2 definition” (Nakata, 2011:17).

However, some researchers are skeptical about the use of flashcards for learning vocabulary as it is considered decontextualised and therefore offers little help to vocabulary learning (Judd, 1978; Oxford and Crookall, 1990; Oxford and Scarcella, 1994). As Oxford and Scarcella (1994) suggested, “knowing an L2 word also involves being able to use the word communicatively in the context of purposeful interaction” (p.232). Nation (2001) also admitted that many aspects of knowing a word are not covered by using flashcards, notably the spoken form, the word’s usage in different registers, as well as the frequency in which the word is used.

As mentioned above, learning vocabulary from flashcards is considered a decontextualised way of learning. In order to provide some contexts for students while preserving the benefits of using flashcards, it is argued that mnemonics can be used when creating flashcards by helping learners form visual and aural associations with the target word. Mnemonics is a word in Ancient Greek which means “aiding the memory” (Higbee, 1979). It is a technique which involves “transferring to-be-learned materials into a form that makes them easier to learn and remember” (Bellezza, 1981:61). It is a creative strategy to learn and teach vocabulary which utilises semantic, visual, and imagery associations.

The research on the effectiveness of mnemonic techniques took off in the late 1970s well into 1980s. The keyword method has been a popular strategy which utilises visual and aural imageries to help students learn new vocabulary (Atkinson, 1975). The keyword method works as follows: 1) learners identify an L1 word (i.e. the keyword) which sounds similar to the target word, 2) they form a mental image of the keyword “interacting” with the translation of the target word in L1. Therefore, an acoustic link as well as an imagery link is formed. As regards using the formation of mnemonic associations to learn new vocabulary, Cohen and Apeh (1980) found benefits in addition to the recall of vocabulary in their study with learners of Hebrew. They found that while students were manipulating or playing around with the target word to create an association, it may enhance learners’ attitude towards the language, similar to young ‘native-speakers’ playing around with words. This study shows that associations generated by the learners through a creative process may have additional benefits compared to associations given to learners.

In earlier studies of the keyword method, only simple vocabulary in a foreign language were tested. Levin et al. (1982) studied the effectiveness of the keyword method using more complex vocabulary with school children in the United States learning complex English words, and they concluded that the keyword method, together with the use of imagery context in which the target word could be used, is a flexible and effective way of learning vocabulary.

Nonetheless, there are limitations to the use of mnemonics in learning and teaching vocabulary. Maera (1980) argued that the use of mnemonic techniques in teaching vocabulary “[treats] vocabulary items as discrete pairs of translation equivalents” which ignored the fact that there is rarely a one-to-one translation between lexical items, and he further argued that this is an ‘oversimplified’ view of vocabulary learning. His other criticism to the use of mnemonics is that most studies done to evaluate the effectiveness of this technique are based on one-off experiments, which are detached from the experience of real language learners who learn a language through the course of a long time.

### **2.10 Technology in education: A critical view**

Even though this thesis is focused on the use of technology for learning Chinese, I do not intend to paint an overly positive picture on the use of technology in education. As can be seen in the review in section 2.2 and 2.3 of this chapter, technology is not a panacea to solve all the problems of classroom language teaching and learning, and as I suggest in the later chapters, classroom language teaching and learning still has an important role to play in the contemporary language learning landscape. Therefore, a critical perspective is needed to examine the use of technology in education. For instance, Livingstone (2012) reviewed the provision of technology in schools in Britain, and concluded that convincing evidence showing improvements in learning brought about by technology is elusive, a finding also echoed in Macaro, Handley and Walter (2012). In a similar vein, Selwyn (2015) argued that in the present academic study of technology and education, there is “a lack of a sustained critical perspective”, mainly a result of the failure to address “the social, political, economic, and cultural complexities of technology and education” (p.248). Furthermore, he asserted that the academic studies of technology and education tend to orient towards the future benefits of using technology, instead of focusing in the realities of the present. Selwyn (2015) regarded the aforementioned reasons as shortcomings that could potentially hinder the development of this field “as a site of substantial and authoritative scholarly work” (p.249). He called for researchers in the field to be “inherently sceptical but never transcending into outright cynicism” (p.249). Therefore, it can be seen that the situation is complex and thus an objective, critical view is

needed regarding the use of technology in language teaching to avoid what Selwyn (2015) called “boosterism”.

### **2.11 Summary**

This chapter has reviewed key literature in the fields of knowledge that this thesis touches upon, namely self-directed language learning, Online Language Learning Platforms (OLLPs), Computer-Assisted Language Learning (CALL), Mobile-Assisted Language Learning (MALL), learner agency and autonomy. This chapter also gave an introduction to the Chinese language, reviewed the use of technology for learning and teaching Chinese as a foreign language, as well as reviewed studies in vocabulary learning. This chapter ended with a call for researchers to adopt a more critical view towards the use of technology in education. By reviewing the key texts in these fields, I have uncovered the gaps existing in the literature and explained how these gaps can be filled by this study. In the next chapter I review the relevant concepts that are used in the thesis, which are translanguaging, multimodality and multilingualism.

## Chapter Three: Towards a Conceptual Framework

### 3.1 Chapter synopsis

In order to understand how language learners use multilingual and multimodal resources in their repertoires to learn Chinese in OLLPs, I turn to three relevant concepts in the literature which help to shed light on this process: translanguaging, multimodality, and multilingualism. Although these concepts came from different theoretical perspectives, I attempt to show that they can contribute to the thesis in different ways by offering multiple perspectives to explore language learning in online contexts. This thesis views translanguaging as the starting point which embraces multimodality and multilingualism. In the following sections, I discuss these three concepts in relation to language learning and review relevant literature.

### 3.2 Translanguaging

Translanguaging is an emerging concept first used by Cen Williams (1994) to describe the pedagogic practices used in bilingual classrooms in Wales. When it was first used, it referred to the practice in which the input is in one language (e.g. English) and the output in another language (e.g. Welsh) (Williams, 1996). As the concept popularised, it is expanded to refer to multilingual practices used not only in the classroom, but also in other kinds of communicative situations such as in shops, at home, during events, and so on. Baker, who first translated the Welsh term *trawsieithu* as translanguaging, defines it as “the process of making meaning, shaping experiences, gaining understanding and knowledge through the use of two languages” (Baker, 2011:288).

#### 3.2.1 *Two approaches to Translanguaging*

There are two approaches to translanguaging. One approach came from bilingual pedagogy (e.g. Williams, 1994, 1996; Baker, 2011; García, 2009). The other approach came from languaging (e.g. works of Becker and Swain). The following sections introduce these two approaches and discuss how they contribute to a new understanding of language education.



### 3.2.1.1 *Translanguaging from the perspective of bilingual pedagogy*

The earliest definition of translanguaging was from Cen Williams, in the context of Welsh bilingual classrooms. The term translanguaging was translated from the Welsh term “trawsieithu”, which was initially coined to name a pedagogical practice which deliberately switches the language mode of input and output in bilingual classrooms:

translanguaging means that you receive information through the medium of one language (e.g., English) and use it yourself through the medium of the other language (e.g., Welsh). Before you can use that information successfully, you must have fully understood it” (Williams, 1996:64).

In this situation, the language switch is strategic and deliberate rather than random. It involves “using one language to reinforce the other in order to increase understanding and in order to augment the pupil’s ability in both languages” (Williams, 2002:40, cited in Lewis, Jones & Baker, 2012). It helps to scaffold one language with another. The term ‘scaffolding’ was first used by Wood, Bruner and Ross (1976) to describe the role of tutoring in helping the problem-solving skills of children. In that context, scaffolding means that adults “[control] those elements of the task that are initially beyond the learner’s capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence” (p.90). While there are studies on the use of scaffolding techniques by teachers in bilingual classrooms, a lot of them are still focused on the teachers’ use of the target language for scaffolding language learning in a multilingual classroom (e.g. Walqui, 2006; Saxena, 2010). However, in recent years, studies on multilingual classrooms have started to focus on teachers’ use of multiple languages for scaffolding. They value the multiple and mobile repertoires that students and their families bring to the classroom which can support students’ development of multilingualism (Hornberger and Link, 2012).

Translanguaging challenges existing assumptions of language learning by emphasising the dynamic model of bilingualism whereby multiple language practices are being used to adjust to the multilingual and multimodal terrain of the communicative situations that people encounter (García, 2009, 2011; García and Flores, 2014; García and Kano, 2014). Instead of keeping the

languages separated, a dynamic bilingualism model suggests the fuzziness and fluidity of the languages which are identifiable but inseparable (see section 3.4.1 of this chapter). Translanguaging challenges the traditional dichotomy of separating languages into L1, L2, or Lx, as well as the dichotomy of native versus non-native speakers. Translanguaging is concerned with the entire repertoire of speakers, rather than structural knowledge of specific languages separately (Li Wei, 2018). The goal of language learning is to achieve bilingualism or multilingualism, not at the expense of the other language(s) that learners already know.

### *3.2.1.2 Translanguaging from the perspective of languaging*

Another approach to translanguaging is from the perspective of languaging, which informs the current conceptualisation of translanguaging used in this thesis. Becker defined *languaging* as “a skill learned over a lifetime, not a system of systems perfected in infancy” (Becker, 1991:34). It is an ongoing process which foregrounds the agency of language users in the meaning-making process. Similarly, Swain (2006) described languaging as “the process of making meaning and shaping knowledge and experience through language” (p.98). For her, language is more than a conveyor of meaning; language is also an agent in problem-solving and making meaning. Swain (2006) concluded that “languaging about language is one of the ways we learn language” (p.98). From this, it can be seen that Swain sees language learning as more of a process than an outcome, which involves the joint negotiation and creation of meaning (Swain and Lapkin, 2013). Moreover, Bagga-Gupta regarded languaging as “ways-of-being-with-words” which highlighted the idea of “language as a process, and product of social activity, or a practice of interactional agency” (Gynne and Bagga-Gupta, 2015:512; see also Bagga-Gupta, 2014). Phipps and Gonzalez (2014) offered a broader understanding of languaging which is particularly relevant to the globalised, superdiverse world. They see languaging as a life skill which is “inextricably interwoven with social experience” (p.3), and as a dynamic process which “changes constantly as that experience evolves and changes” (p.4). They concluded by calling for a paradigm shift from a focus on language learning to languaging.

All these definitions of languaging foreground the fact that multilingual language users strategically use language as a tool to learn. Swain (2006) presented examples of how students learned about different aspects of a language by “talking-it-through”, in other words, they used language as a tool to mediate their cognition in order to solve a problem. Languaging, as Swain (2006) observed, “mediated the students’ language learning by drawing their attention to language-related problems they had, and by giving them the tools to reason with, to solutions” (p.105-106). The languaging approach to translanguaging gives emphasis to the metalinguistic awareness of learners so that learning is made more explicit.

The above definitions of languaging are mostly based in the sociocultural tradition. The conceptualisation of translanguaging used in this thesis is also informed by the work of ecological psychologists such as Nigel Love, Stephen Cowley, Paul Thibault, and Sune Steffensen who offer a cognitive perspective of languaging based on the distributed view of language. They see languaging as a “distributed and heterogeneous biocultural resource that is spread over persons, environmental affordances, artifacts, cultural patterns, and values” (Thibault, 2011:240). From their point of view, languaging is distributed between the brain, body, and the social and cultural world, and is “spread across spatiotemporal scales ranging from the neural to the cultural” (Thibault, 2011:210).

Language is thus seen as a dynamic system that arises from situational behaviours of interlocutors. The language that people produce in a visible and audible way is a product of first-order activity, languaging (Cowley, 2017; Thibault, 2011, 2017; Steffensen, 2011). This view challenges the classical view of language of Saussure whose fundamental idea is that language is an object, a fixed-code that people all share. In particular, Thibault suggested that first-order languaging “is an experiential flow that is enacted, maintained, and changed by the real-time activity of participants” (2017:74), and therefore it is a whole-body sense-making activity (Thibault, 2011, 2017). He explained that first-order languaging “includes a whole range of bodily resources that are assembled and coordinated in languaging events together with external

(extrabodily) aspects of situations” (2011:215). Audible sounds and verbal patterns, which are conventionally considered as ‘language’, are actually second-order language - “reified products of first-order languaging” (Thibault, 2017:80). The central argument here is the refusal to reduce language to “linguistic objects”, or “formal abstracta” that are separated from first-order languaging as suggested by the classical view of language held by Saussure (Love, 2004, 2007, 2017; Thibault, 2011, 2017; Cowley, 2017). To summarise, one must grant “languaging a primacy over what is languaged” (Love, 2016, cited in Cowley, 2017:48). Therefore, it can be seen that languaging is an orchestration of the neural- bodily-worldly skills which are multilingual, multimodal, multisensory, and multisemiotic.

Thus far the discussion on languaging shows that multimodality and multilingualism are incorporated in translanguaging, further suggesting that language is a “multilingual, multisemiotic, multisensory, and multimodal resource for sense- and meaning-making” (Li Wei, 2018:22). The discussion below moves on to the Trans- prefix, on how it adds to the above discussion of languaging by highlighting the multilingual and multimodal nature of Translanguaging.

According to García and Li Wei (2014:3), the ‘trans’ prefix in translanguaging refers to the following aspects of language and education:

- 1) *Trans-system and trans-spaces*
- 2) *Trans-formative nature*
- 3) *Trans-disciplinary*

To summarise, these ‘trans-’ features of translanguaging emphasise the idea that translanguaging is not just going between languages, but also beyond languages. It also challenges the view that there are boundaries between languages and other cognitive systems as separate modules (cf. the Modularity of Mind hypothesis). As Thierry (2016) pointed out, research evidence does not suggest that the human mind can be divided into different languages.

Furthermore, Translanguaging has a transformative capacity. As mentioned in Li Wei (2016),

[translanguaging] transforms the form, function and meaning of the sign, linguistic or otherwise; it also creates a space for the multilingual language user by bringing together different dimensions of their personal history, experience and environment, their attitude, belief and ideology, their cognitive and physical capacity into one coordinated and meaningful performance, and making language use into a lived experience (p.8)

In this thesis, the transformative capacity of Translanguaging can be seen by the creative and critical ways that language learners used when they mobilise their multilingual and multisemiotic resources for their learning. Translanguaging is therefore also a resemiotization process (Iedema, 2003), referring to actions which allow language learners to create new meanings while transforming a sign from one semiotic mode to another. Everytime a sign is transformed, new meanings emerged. Examples of this include New Chinglish, in which English utterances are being re-appropriated with morphological rules of English but with Chinese meanings (see Li Wei, 2016, 2018). As a result, there is a need for applied linguists to go beyond the artificial divide of linguistic and non-linguistic dimensions of language learning. In Chapter Seven of the thesis, I demonstrate this transformative capacity of translanguaging by examining the two cases of Chinese learning by the creation of multimodal texts.

### *3.2.2 Translanguaging in different modalities*

Translanguaging is often associated with face-to-face oral interactions, but it can also occur in other genres and modalities, such as the study by Velasco and García (2014) on the use of translanguaging in developing the writing skills of bilingual children in a school in New York City. They described in detail five manifestations of how translanguaging is used in the different stages of the writing process (planning, drafting, the final product); and how translanguaging is also used for strategic scaffolding or for rhetorical engagement. They further pointed out that translanguaging has become a key element in meaning making for these bilingual students, and they developed their voices by selecting different resources in their writing. They concluded that “[t]ranslanguaging is not solely a bilingual discourse or a pedagogical strategy for scaffolding instruction.

It is also the way that emergent bilinguals can, and do, self-regulate and advance their learning” (p.21). Lee (2015) in his study of visual art installations by the contemporary Chinese artist Xu Bing examined how translanguaging occurs across Chinese scripts and English alphabets which “[embodies] an intersemiotic operation, where one transits between the spatial-architectonic structure of Chinese characters and the aurality-orality of English letters” (p.447).

Nonetheless, the study of translanguaging used in contexts other than spoken interaction is often placed at the periphery in the language learning context. One such example is translanguaging in writing. The use of translanguaging in writing has always been frowned upon by language teachers as writing is often seen as a formal way of assessing students’ ability of the language, and that a ‘standardised’, or a ‘correct’ form of language has to be used. Canagarajah (2011a) criticised this view by arguing that writing has resources that can favour translanguaging practices, such as its materiality and visual dimension, and that literacy in non-western world has always been multilingual and multimodal (Canagarajah, 2011b; 2006; 2007; 2015; de Souza, 2002). Canagarajah (2011b) also pointed out that the mutual influences from different languages in one’s repertoire should be treated as “creative and enabling, not hindering, communication” (p.9).

### *3.2.3 Translanguaging pedagogy*

In addition to being a subject of inquiry itself, translanguaging can also inform pedagogy (see García, 2009; Li Wei, 2011b; García & Flores, 2014; García & Kano, 2014). For instance, Creese and Blackledge (2010) investigated the translanguaging practices used in complementary schools in the UK from a language ecology perspective. In particular, they discussed how translanguaging informs a kind of flexible bilingual pedagogy which “allows complementary schools an avenue for the reproduction of social, community, and pedagogic values and goals” (p.112). Similarly, García and Li Wei (2014) highlighted the role of translanguaging in transforming and extending traditional bilingual education programmes, which still holds the view that languages are separated systems. In García and Kano’s (2014) study they demonstrated how

a translanguaging pedagogy can increase Japanese students' metalinguistic and metacognitive awareness of both Japanese and English. The translanguaging pedagogy, as observed by García and Kano, enables students to "move back and forth along their entire linguistic repertoire" as they learn a new language (p.274).

Thus far I have discussed Translanguaging in two parts: its roots in languaging, and its 'trans' prefix which highlights the multimodal and multilingual nature of translanguaging. Next I reviewed studies on the use of translanguaging in different modalities, and how translanguaging informs pedagogy. The next section discusses multimodality from a social semiotic perspective.

### **3.3 Multimodality**

Saussure referred to language as "the most important of all the systems of signs" (Saussure, 1983:15). However, this privileging view of language does not reflect how people communicate in the real world, which is always multimodal, i.e. using multiple modes. People make meaning using different modes of representations which work together to give meaning.

#### *3.3.1 A social semiotic approach to multimodality*

There are three approaches to multimodality: 1) social semiotics which foregrounds power and agency, 2) systemic functional linguistics which emphasises on the social functions of forms, and 3) conversation analysis which focuses on the social order in interaction (Jewitt, Bezemer and O'Halloran, 2016). This thesis adopts Kress's social semiotic approach to multimodality in an attempt to make use of this set of analytical tools to describe and explain how platform designers use a variety of modes to make meaning, and how learners interpret and select the resources which best suit their *interest* (of learning Chinese). Traditionally, in all kinds of teaching materials, writing is the most dominant mode used, and other modes such as images were being reduced to a peripheral role, as seen in Bezemer and Kress' (2008) study on the semiotic changes in textbooks. However, in contemporary educational contexts, writing is just a mode used alongside other modes to make meaning,

and a theory of multimodality is needed to address the multiplicity of semiotic resources used in contemporary teaching materials.

As suggested by Kress (2013), the social semiotic part and the multimodal aspect of the theory are complementary to each other:

The Social Semiotic part of the theory attends to uncovering the sign- and meaning-maker's *interest; agency* in the semiotic work done and the principles used in *selection, transformation, transduction, arrangement* of modes and entities of the modes. The multimodal aspect attends to the modal resources used and to their affordances (p.129)

He further explains that this complementarity makes multimodal social semiotics relevant to education as it provides a dual focus which accounts for 1) the *agency* of sign-makers and 2) the *resources used* when making signs (Kress, 2013:133; original emphasis). This thesis selectively employs social semiotics to understand the platform's and learners' interests in meaning-making, and multimodality as a tool to analyse how pedagogic assumptions are realised in the design of the platform, as well as the pedagogic work being done by the different modes. This is discussed in Chapter Five of the thesis.

### 3.3.2 *Social Semiotics*

Social semiotics originates from Halliday's Systemic Functional Grammar. This view focuses on the role of language as a resource for making meanings (Halliday, 1978). His work shifted attention from "language as a static system to language as a social system" (Jewitt, 2013:252), emphasising the way that language is shaped by its social functions.

Social Semiotics is based on the semiotic perspective of Halliday's theory, which is more focused on meaning of signs in addition to language. It is a study of "the science of the sign, a fusion of form/signifier and meaning/signified" (Kress, 2003:41). This focus is driven by the fact that in contemporary communication practices, language is not the only, or main means of making meaning; other modes are increasingly being used to express meanings that cannot be expressed using language alone, and these other modes, in a lot of situations, may even be more prominent and significant than language. In light of this, linguistic theory alone can no longer provide a holistic account of



meaning-making in communications, and therefore a new theory which accounts for not only language, but other modes of representation, and the *agency* of sign-makers is needed to explain meaning-making practices which are multimodal in nature. As Kress (2003) explains, “the move from linguistics to semiotics is ... a move from a primary concern with form to a concern with form-and-meaning” (p. 40). Nonetheless, it does not mean that language-based modes, for example, speech and writing, will be made redundant in this theory of social semiotics; rather, they will be considered as “a part of the whole landscape of the many modes available for representation” (Kress, 2003:36). Kress (2010) points out the following uses of social semiotics in helping us to understand a multimodal text:

*Social semiotics and the multimodal dimension of the theory, tell us about interest and agency; about meaning(-making); about processes of sign-making in social environments; about the resources for making meaning and their respective potentials as signifiers in the making of signs-as-metaphors; about the meaning potentials of cultural/semiotic forms. The theory can describe and analyse all signs in all modes as well as their interrelation in any one text. (Kress, 2010, p. 59)*

He concludes that social semiotics and multimodality “provides an encompassing theory of *representation and communication*” (Kress, 2010:105; original emphasis). Chapter Five of the thesis explains how social semiotics and multimodality are put in practice to analyse a multimodal learning environment. There are several key concepts used in social semiotics that need to be discussed. They are sign, meaning-making, interest, mode, modal affordance, and text.

### 3.3.3 *Sign*

*Sign* is an important concept in the theory of semiotics. It is “a fusion of form and meaning” (Kress, 2010:54). *Semiosis* concerns with how signs are *made* rather than *used*. The focus on *sign-making* rather than *sign use* sets social semiotic theory apart from other semiotic theories. It focuses on how the meaning of signs are social, culturally constructed and shaped (Kress, 2010). Sign-makers choose the sign which aptly represents a meaning, based on their *interests*.

Social semiotics is based on the assumption that signs are *motivated*. In other words, the relation between *signifier* and *signified* is not wholly arbitrary (Kress, 1997, 2003, 2010). The signifier is chosen to represent the signified based on its *aptness* for expressing the meaning of the signified. An example of the concept of *motivated sign* and *interest* is illustrated in an example of a drawing of a car by a three-year-old boy, who used a number of circles to represent a car. From the boy's perspective, circles are the most apt signifier to represent wheels of the car, the signified. The use of wheels to signify a car reflects the boy's interest that a car has many wheels (Kress, 1997, 2003, 2010). The notion of motivated sign allows us to assume that signs are always meaningful conjunctions of signifiers and signifieds so that all forms are meaningful and should be taken seriously (Kress, 1997, 2003, 2010).

Kress considers his notion of motivated sign and Saussure's assumption of arbitrariness between the signifier and signified to be contradictory. As Kress puts it,

Saussure's mistaken assumption that the relation of *signifier* and *signified* is an arbitrary one was, as is all theory, a product and realization of the social conditions of his time (Kress, 2010:65; original emphasis)

Following this, Kress (2010:65-66; original emphasis) offers three objections as to why the relation of signifier and signified is motivated, but not arbitrary:

1. [A]rbitrariness takes no account either of the patent facts of the histories (of change) of semiotic resources ... nor of the facts of contemporary sign-making practice in every instance.
2. [Saussure's notion of arbitrariness] rests on a confusion on Saussure's part about the characteristics and the levels at which *signifier* and *signified* operate.
3. [Saussure's notion of arbitrariness] denies agency to those who *make* meaning in *making* signs

However, it could be argued that the selection of apt signifiers does not necessarily mean that signifiers are not arbitrary symbols, as in the case of the use of different languages to refer to the same signified. For instance, tree (English) and 树 (Chinese) both refer to the same signified, with the use of

different symbols (form), and these two symbols (tree and 树) has no relations with each other except that they all refer to the same signified. In other words, the arbitrary symbols (tree and 树) used are arbitrary in relation to the signified, and they are established by conventions rather than motivated (see Saussure (1916/1983) on the arbitrariness of sign). To sum up, Kress' conception of motivated sign and Saussure's arbitrariness of sign are in fact referring to different things, and it should not be seen as a refutation of Saussure's claim.

#### 3.3.4 *Meaning-making*

From the perspective of social semiotics, "meaning is the result of (semiotic) work, whether as *articulation* in the outwardly made sign...or as *interpretation* in the inwardly made sign" (Kress, 2003:37; original emphasis). Kress describes semiotic work as the work of filling the signifier with meaning. When meaning is made, there has to be a 'maker', and hence *agency* is important in social semiotics (Kress, 2010). As sign-makers choose the apt signifier to make meaning for the signified, meaning-making involves the interaction between the sign-makers' *interests* and the meaning potential of the resources available. The sign-makers have the ability to choose modes with the potential to carry meaning, which is motivated by their *interests*. Thus, meaning is realised differently in different modes (Kress, 2003). In the theory of social semiotics, signs are always made twice, first by the rhetor when the sign is being articulated, and then by the interlocutor when the sign is being interpreted.

#### 3.3.5 *Interest*

Another important concept in the theory of social semiotics is the notion of interest. Kress (1993) defines interest as

the articulation and realisation of an individual's relation to an object or event, acting out of that social complex at a particular moment, in the context of an interaction with other constitutive factors of the situation which are considered as relevant by the individual. (p.174)

The same example of the three-year-old boy's drawing of a car can also be used to explain the concept of *interest*. From his perspective, a car is seen as something that has a lot of wheels. This information is taken as criterial about

what a car is, and so he chose to use wheels as a signifier to represent a car, the signified. Similarly, wheels for him are similar to circles. Again, this property of wheels is taken as criterial and so he chose to use circles as a signifier to represent wheels, the signified. In other words, it is the *interest* of the boy, the sign-maker, that determines what is taken as criterial about the signified, and it is this *attention* to certain features of the signified that helps sign-maker choose the most apt signifier to represent the signified.

Under the assumption that all signs are motivated, it can also be deduced that representation is always partial. As Kress explains, the sign is always both a representation of what sign-makers wished to represent and it is an indication of their interest at a particular moment. It is a “direct consequence and expression of the sign-maker’s subjectivity – focused in this instance and at the moment on the representation of a particular object or event” (Kress, 1996:20).

The notion of *interest* has important implications to learning. In the words of Kress (2010), this “interested attention” frames an aspect of the communicational environment as a *prompt*” which influences the way how readers choose to navigate a text (p. 175). Bezemer et al. (2012) also pointed out that *interest* plays an important role in meaning-making and learning as it shapes the *attention* of learners to what they choose to focus in learning. This idea of ‘interest’, to a certain extent, resembles ‘motivation’ which is widely used in Second Language Acquisition (SLA) research.

### 3.3.6 Mode

Kress (2010) defines mode as a “socially shaped and culturally given semiotic resource for making meaning” (p. 79). Some examples of modes are image, writing, speech, animation, etc. As these semiotic resources are socially and culturally shaped in the way they are used to convey meanings, Kress and other social semiotic multimodalists believe that they display regularities in how they are used. Through analysing multimodal texts, researchers seek to understand the principles behind the selection of modes and what modal resources are available in a situated communicative event (Jewitt, 2009).

What can be seen as a mode is shaped and construed by social, cultural and historical factors (Jewitt, 2009). Kress (2010) proposed two approaches: a theoretical one and a social one. In the theoretically oriented approach, one needs to know about the socially accepted features of existing modes. For instance, Kress mentioned that “treating speech and writing as modes is to accept that modes consist of bundles of (often deeply diverse) features”, and one needs to know what are the features *inside* and *outside* of a mode (p.86). For example, “everything that happens ‘inside’ the barrier of lips and nose can be part of speech” but “the sarcastic curl of the lips is not” (p. 87). On the other hand, in the socially oriented approach, a resource can only be considered as a mode when it has fulfilled the *social* and the *formal* aspects in social semiotics (Kress, 2010). *Socially*, as mode is socially shaped, a resource can be classified as a mode when a community or a culture decides to use it to make meaning. *Formally*, a resource can be regarded as a mode when it is able to perform the *ideational function*, *interpersonal function*, and the *textual function* (Halliday, 1978). Generally speaking, “a shared cultural sense of a set of resources and how these can be organized to realize meaning” is needed (Jewitt, 2009:22). Norris (2004b) also pointed out that a communicative mode should not be seen as a bounded unit; instead, it should be seen as “a heuristic unit that is loosely defined without clear or stringent boundaries” which overlaps with other communicative modes (p.101).

### 3.3.7 Modal Affordance

Different modes have different potentials for making meaning. The notion of *affordance* was first introduced by Gibson (1986). Jewitt (2013) defines modal affordance as the “potentialities and constraints of different modes” (p. 254). For instance, writing offers different potentials of meaning making from images. These different potentials allow sign-makers to express their meanings that best suit their *interests* as well as the *interests* of the audience (Bezemer and Kress, 2008). In a study that compares the modes used in textbooks published over time and online resources, Bezemer and Kress (2008) found that different potentials for learning are realised by the use of different modes. In a website teaching ‘Angles’, the image showed students how the angle was measured by a protractor whereas the writing showed the ‘actions performed’ and the

definition of an angle. This example illustrates that different modes perform different functions, and they have different affordances that complement each other in making meaning. In another study on food blogs, Domingo, Jewitt, and Kress (2015) discovered that when a blogger described the steps of making cupcakes, she used writing to tell readers about the consistency of the mixture, afterwards she used an image of the mixture to show what the mixture looked like at that stage of baking. The authors argued that the mode of writing is now not sufficient to let readers know what the mixture is like at that particular stage of baking and an image is a better way to show it. However, it has to be clarified that it has never been sufficient when only one mode is used to make meaning. The point is that now with the advancement of technology, more modes such as images are available for sign-makers, which were not as easily available in the past. This example indicates that the affordances of each mode – what modes can do – is dependent on context. The uses of mode can also reshape its affordances in line with the changes in social practices (Kress, 2010). Thanks to high-speed Internet connection and the ease of connecting to the Internet, image, sound, and video has increasingly gained importance because people want instant comprehension without reading and thinking too much. The above-mentioned modes are apt for people who need to obtain information on the go in a short amount of time.

In communication, several modes are often used in combination to form a *multimodal ensemble*, in which “the affordances of each mode are used for the purposes which seem to the maker of signs on a specific occasion most aptly served by the mode” (Kress, 2015:57). The meaning of any message is distributed across all modes, and is carried in different ways by each mode in the ensemble. Each mode in the ensemble carries part of the message, and therefore “each mode is partial in relation to the whole of the meaning” (Jewitt, 2009:25). It has to be noted that in the multimodal analysis in Chapter Five, in particular section 5.8, modes are analytically separated to unpack the functions that they carried out. It does not intend to suggest that modes are separated in communicative contexts.

### 3.3.8 *Text*

A social semiotic understanding of the term *text* goes beyond linguistic modes such as writing. In other words, all texts are multimodal. For me, I see texts as a representation of multimodal ensembles. It is the site where meanings are made. In the words of Kress, text refers to any instance of communication in any combination of modes which has a 'site of appearance', for instance, on paper or on screen (Kress, 2003). In the past, a lot of texts used to appear on paper, but increasingly more and more texts appear on screen, which is organised by the logic of image rather than writing. This is the reason why texts that appear on paper and on screen are often designed differently, as the two mediums have different affordances.

### 3.3.9 *Theoretical assumptions of Multimodality*

Norris (2004a) asserts that "all interactions are multimodal" (p. 1). In Jewitt's words, "[m]ultimodality describes approaches that understand communication and representation to be more than about language, and which attend to the full range of communicational forms people use...and the relationships between them" (Jewitt, 2009:14). While in the earlier decades before technology was widely used in the classroom, language had been the dominant mode used in the teaching and learning context, with other modes being used in the periphery. In the contemporary education landscape, more modes are now available thanks to the advancement of technology. This challenges the centrality of language in the education context and points to a need in an approach that takes into account modes beyond language.

There are three theoretical assumptions associated with multimodality. The first assumption is that "language is part of a multimodal ensemble" (Jewitt, 2009:14). In a multimodal approach, language is considered to be one of the modes in a multiplicity of modes, which is of equal importance with other modes such as image and speech to contribute to meaning. The second assumption to multimodality is that "each mode in a multimodal ensemble is understood as realizing different communicative work" (Jewitt, 2009:15). As modes have different potentials for making meaning which are shaped through their cultural, historical and social uses, each mode has its own situated meaning in a

particular context in which it is used and their roles are not fixed. What can be done through language differs from what can be done through image for instance, and therefore all modes, including language, is seen as part of a multimodal ensemble which have to be understood in its entirety (Jewitt, 2009). Following from this, the third assumption is that “people orchestrate meaning through their selection and configuration of modes” (Jewitt, 2009:15). Different modes perform different functions in a multimodal text. However, modes do not work individually; they orchestrate to make meanings. Jewitt (2009) pointed out that the meanings of different modes in a text are always interwoven and that they “co-present” and “co-operate” with each other in the communicative event (p. 15). A simple metaphor of the relationship between modes and multimodal ensemble could be illustrated by an orchestra. Different instruments play their own tunes, and together it becomes a piece of music that is enjoyed as a whole, not as music produced by separate instruments. All instruments perform different functions in the piece of music, and together they form a beautiful piece of music.

### 3.3.10 All learning is multimodal

Social semiotics and multimodality have great implications for learning. As mentioned in the previous sections of this chapter, there has been an ideological preoccupation with language in the past, largely because of the lack of technology that impeded the use of ‘non-linguistic’ modes. However, the situation has now changed due to the availability of technology that affords more effective use of modes other than language. This wider access to technology has influenced teaching and learning practices from a focus on language to other semiotic resources, and thus there is a need to rethink the current practices of teaching and learning. Under a social semiotic approach, teaching and learning are seen as *social* practices, concerned with pedagogic relations in different learning environments (Bezemer & Kress, 2016).

Although *learning* is not traditionally associated with semiotics, Kress (2009) argues that

One cannot have a theory of learning without a theory of meaning, however implicit that may be; a theory of learning always entails a theory



of meaning. Meaning is the stuff of semiotics; hence, semiotics is inevitably and centrally implicated in any theory of learning. Semiotically, sign-making is meaning-making, and learning is the result of these processes (p.27-28)

And in light of the above discussion, Kress (2009) defined learning as

the result of the transformative engagement with an aspect of the world that is the focus of attention by an individual, on the basis of principles brought by them to that engagement; leading to a transformation of the individual's semiotic/conceptual resources (p.31)

In the social semiotic frame, learning is the outcome of learners' engagement with the world. In the process of engaging with the world, learners respond to a prompt, and transform it to a new sign. Below is an explanation of transformative engagement in the words of Bezemer and Kress:

We use the term *transformative engagement* in recognition of the fact that sign-makers do not 'simply' – so to speak – copy, acquire, somehow straightforwardly internalize or absorb signs made by others. We see environments and instances of learning and teaching as instances of communication... Learning, we hypothesize, rests on interpretation as the outcome of principled, transformative engagement, no matter by whom or how that engagement has been or is shaped (Bezemer and Kress, 2016:38; original emphasis)

How learning environments are designed is important as they affect the possibilities of learning. "*Learning happens in specific environments' that offer specific semiotic/conceptual resources in particular configurations*" (Kress, 2009:20; original emphasis). Moreover, learning, as explained by Kress (2009), is the result of a "semiotic/conceptual/meaning-making engagement with an aspect of the world, as the result of which the learner's semiotic/conceptual resources for making meaning and therefore for acting in the world are changed – they are augmented" (p. 19-20). In other words, all learning is multimodal.

This new theory on learning dismisses the traditional view of learning as the transmission of knowledge from the experts to the novice and is much more learner-centred. It also unsettles the role of socialisation in learning. The social semiotic view of learning focuses on the *interpreter*, that is, the learners. As explained by Kress (2009), what learners choose to pay attention to is framed by their interests, and this becomes the prompt for their learning. Learning is the

interpretation of this prompt. As Stein (2012) argued, “multimodal pedagogies acknowledge learners as agentive, resourceful and creative meaning-makers who communicate using the communicative potential and multiple resources of their bodies and of their environment to interconnect” (p.122). The following section reviews some studies on how social semiotic multimodality can be used to understand language learning.

### *3.3.11 Multimodal approach to language learning*

As mentioned in the previous sections, modes such as speech and writing only carry part of the meaning. We also discussed that all communication is multimodal. If the goal of language learning is to be able to communicate with other people effectively, a multimodal approach to language learning is necessary.

In a study conducted by Kenner and Kress (2002), they looked at the relationship between multimodality and script systems of different languages. They observed how early bilinguals learnt the script of Chinese, Arabic, and Spanish, all of which have different features, such as shape, spatial organisation, and directionality. The authors found that these early bilinguals were aware of the principles underlying these different writing systems, and they were developing ‘embodied knowledges’ of the act of writing these different script systems.

In terms of vocabulary learning, Bezemer and Kress (2016) observed the conflict between the interest of textbook-makers and teachers who used the textbook to teach. In their study of Dutch language textbooks, the authors found that in the vocabulary section, the textbook included not only target words in written form that students were supposed to learn, but it also contained images which represented these target words. As the authors observed, the teacher’s guide emphasised the different ways for teachers to teach vocabulary, such as acting, drawing, and “creating a meaningful context” (p.99), however, in class, the teacher created additional materials which transformed and transduced the materials from the textbook into a handout which is dominated by writing. In other words, the handout became a glossary. Students were expected to

memorise those words, and they were not given the opportunity to demonstrate their knowledge by multimodal means. As the authors suggested, both the design of the textbook and the teacher's handout "are prompted by judgements of the aptness of modes and signs" to help students expand their vocabulary (p.101). However, the teacher only focused on one mode, language, and neglected the other modes that could be used to assess students' knowledge of vocabulary.

Royce (2002, 2007) argued for a multimodal view of communicative competence (CC) in language classrooms. Drawing from Systemic Functional Linguistics (SFL), he gave examples of how multimodal CC could be used in a language classroom which moves away from a sole focus on linguistic competence, to a more integrated understanding of how different modes 'work together' to make meaning. For instance, Royce (2007) gave an example of a multimodal reading class for a group of first year high school students in Japan. The lesson included a jigsaw reading activity where students in the same group were given different paragraphs of the text to read, afterwards they had to report to the group what they had read from the paragraph before putting these paragraph into logical sequence. They were then given pictures that were related to these paragraphs and students were asked to be 'textbook editors' to arrange the layout of the page, and they had to report to the class why they made such an arrangement. This example shows how a task in a reading lesson can raise awareness of students' understanding of salience and reading path, while achieving the goal of understanding how meaning is related to the organisation of a text.

Thus far I have discussed some examples of how multimodality could be incorporated in language teaching and learning. The next section focuses on the implications of multimodality to language learning research.

*3.3.12 The 'lingual bias' and a 'multimodal turn' to language learning research*  
Block (2014) warned against the "lingual bias", which refers to "the tendency to conceive of communicative practices exclusively in terms of the linguistic (morphology, syntax, phonology, lexis)" (p.56). He then argued that "an active

engagement with embodiment and multimodality' is needed in SLA studies in order to make sense of what people do semiotically when they interact" (p.56). Kress (2015) made a similar point. He called for the use of "an apt theory of communication for the contemporary period" (p.66). He argued that a sole focus on speech and writing in Applied Linguistics would not suffice to make sense of the communicative practices in the contemporary world, and thus a 'multimodal turn' in Applied Linguistics is needed:

'Language', as speech or writing, remains an anchoring-point in thinking and working in AL [Applied Linguistics]. Here, however, the reference-point to be discussed is MM [Multimodality]. Its material resources are many and varied; they go well beyond speech and writing. 'Material' in the sense here employed refers to those phenomena which are accessible to and for engagement by the 'senses', the (human) sensorium. All of these "material resources" impinge more or less closely on the present domain of AL, in ways both distinct yet closely connected. (p.51)

As mentioned before, all communication is multimodal. A sole focus on speech and writing would miss out a lot of communication that happened using other semiotic modes, such as images, colours, sound, etc. It is particularly evident in an era of mobility in which people are often in situations where they share few linguistic resources with other people (see Adami's (2017) research on communication in the market). Modes are only partial means of communication. One can never analyse communication holistically by just examining only one mode. Kress (2015) then asserted that

the notion of 'communication' of the early years of AL, which gave it coherence, has changed out of recognition: away from its then certain location in 'language' and now scattered across a wide domain of social and semiotic means, resources and practices. (p.53)

More and more language learning research has started to pay attention to some form of multimodality, mostly on the study of gestures, framed under the umbrella term of 'non-verbal communication' or 'paralinguistic cues'. Despite this positive development, Block (2014) is critical of the fact that such research mostly focuses on one mode, most notably gesture, while other semiotic modes remain peripheral. He calls for researchers to "take on board this wide range of modes more explicitly and more completely, examining how they form ensembles to communicate meaning in different contexts" (p.70). Not only does

linguistic research need to acknowledge multimodality as a phenomenon, but it should also “embrace the potential paradigmatic shift that the notion of multimodality can bring to our understanding of communicative practices” to avoid reproducing hegemonic discourses that perpetuates the paradigmatic role of language (Adami, 2017:3). To sum up, multimodality has drawn attention to the ‘non-linguistic’ modes which were previously neglected, and attempted to theorise them. In the Introductory chapter of Kress and van Leeuwen’s (2006) book *Reading Images: The Grammar of Visual Design*, they expressed the desire to use the subtitle “the grammar of visual design” because they believed that visual structures, like linguistic structures, can be analysed systematically. The use of the word “grammar”, in their view, reflects the reality that “modes are inevitably be constrained by rules, rules enforced through education...and through all kinds of written and unwritten social sanctions” (p.2-3; see also Kress, 2003). Having said that, they are optimistic that visual communication will gain in importance in different realms of communications and it will not be the privilege of the specialists.

Thus far, I have discussed Translanguaging and Multimodality. In the following section I will discuss the third concept that informs this thesis, which is Multilingualism.

### **3.4 Multilingualism**

A multilingual individual is someone who can speak more than one language. Sometimes the word bilingualism is also used, which usually refers to an individual who can speak two languages. Nevertheless, in the context of education, ‘bilingual education’ is often used as an umbrella term to include multilingual education, and the bi- prefix does not refer to two languages; it has a broader meaning to refer to “complex linguistic interactions that cannot be enumerated” (García and Li Wei, 2014:3). There are two levels of multilingualism – individual and societal. Individual multilingualism and plurilingualism are sometimes used interchangeably. The Council of Europe (n.d.) defines plurilingualism as the “repertoire of varieties of language which many individuals use”. In such a case, “some individuals are monolingual and some are plurilingual”. This is in contrast to multilingualism (societal), which

refers to “the presence in a geographical area...of more than one ‘variety of language’...in such an area individuals may be monolingual, speaking only their own variety”. While bilingualism and plurilingualism are normally used at the individual level, multilingualism is usually used at the societal level to describe groups that uses more than two languages (García & Li Wei, 2014).

There has been a tendency that language was seen as a bounded, self-contained entity that could be enumerated. This view had shaped the early definition of bilingualism, plurilingualism, and multilingualism, and it perpetuated the monolingual norm. Instead of seeing multilingualism as a resource for learning, multilingual learners were seen as deficient and non-native, and the languages that they learn to speak are ‘interlanguage’ (Selinker, 1972), which has the implication that they are incomplete in their language acquisition, even though ‘interlanguage’ is a systematic form of learners language. This deficit view of bilingualism is summarised by Grosjean (1985: 468-470):

- Bilinguals have been described and evaluated in terms of the fluency and balance they have in their two languages
- Language skills in bilinguals have almost always been appraised in terms of monolingual standards
- The contact of the bilingual’s two languages is seen as accidental and anomalous

To this day, linguistic purism still exists. There is still a tendency in language teaching and learning to assume that one’s first language is the cause of problems in learning additional languages, rather than seeing it as a resource. Some examples include the One Language Only (OLON) and the One Language at a Time (OLAT) policies being administered in a lot of schools all over the world.

The monolingual view of bilingualism has been challenged by sociolinguists who offer a different way to understand multilingualism. The new perspective emphasises that the different languages be seen as a resource for learning rather than as interference. One such view is proposed by Blommaert, Collins

and Slembrouck (2005). Instead of defining multilingualism as what an individual has and does not have, they argued that it should be seen as what the environment offers and does not offer. Following this line of thought, when one goes to a foreign country and is not able to communicate with people in the local language, instead of thinking that individual lacks the resources to communicate, it should rather be seen as the environment has changed and the resources that the individual possesses is no longer apt in that particular environment. In the authors' words, "communication problems in such situations are the result of how individuals and their communicative 'baggage' are inserted into regimes of language valid in that particular space" (p.198). Furthermore, context plays an active role in communication in which it "organizes and defines sociolinguistic regimes in which spaces are characterized by sets of norms and expectations about communicative behaviour – orders of indexicality" (Blommaert, Collins & Slembrouck, 2005:203), and therefore the authors called for closer investigation into the effect of context on language use. In addition to communicating linguistically, they did not dismiss the fact that people also semiotically create and modify space according to the context. The position that they argued for in their paper is that

people have varying language abilities – repertoires and skills with languages – but that *the function and value of those repertoires and skills can change as the space of language contact changes* (Blommaert, Collins & Slembrouck, 2005:203; original emphasis)

In other words, repertoires are dynamic and mobile. They change as the environment changes. The mobile nature of repertoires is presented in Section 3.4.2.1.

Similarly, Rymes (2014b) argued that "every interaction is a 'multilingual' interaction" (p.29). In her example of the use of the Hindi word 'Jaan-e-man' (meaning sweetheart), she observed that even non-Hindi speakers are starting to use it to express solidarity to one another, such as 'Hand me the computer, Jaan-e-man'. One does not need to have 'full' command of an additional language in order to be a multilingual. All of us have some ability to use words we know from other languages (Rymes, 2014b). Even people who really does not know any other languages are multilinguals because they deploy different ways of speaking. For instance, their registers are different when speaking to an

elderly person or to a young person, or speaking at a party or speaking at a business meeting. In other words, no one is monolingual (Rymes, 2014b; Otheguy, Garcia & Reid, 2015).

#### 3.4.1 *Multilingualism as a learning resource*

From a Saussurean perspective of language, bilingualism usually refers to a person knowing and using two autonomous languages, normally separated from each other; plurilingualism refers to a person knowing and using more than two autonomous languages, again separately. This is what Cummins (2005, 2008) called the “two solitudes”, or “two monolinguals in one person” (Grosjean, 1985, 1989). Although these are traditional understandings of language that are conventionalised and are being used across educational institutions and governments in the world, these terms all refer to an additive or subtractive bilingualism model, implying that speakers simply add one language to another, or they have to take away their first language in order to learn a second language. Neither of these models shows any interaction and links between different languages. In this view, it is believed that it is important to keep different languages apart so they would not ‘interfere’ with each other. This monolithic view increasingly faces criticisms from applied linguists, and this understanding is replaced by a dynamic view of bilingualism which suggests that

The language *practices* of bilinguals are complex and interrelated; they do not emerge in a linear way or function separately since there is only one linguistic system. Dynamic bilingualism goes beyond the idea that there are two languages that are interdependent...instead, it connotes one linguistic system that has features that are most often practiced according to societally constructed and controlled ‘languages’, but other times producing new practices (García and Li Wei, 2014:14)

This definition of dynamic view of bilingualism puts the emphasis on the internal perspectives of the bilinguals, and also the existence of only one linguistic system that is made up of different languages. These languages are identifiable but inseparable. It recognises the ability to speak different languages as an asset rather than a deficiency or a hindrance. In other words, multilingualism is a resource for learning.



In order to understand how language learners use different languages that they know as a resource to learn a new language, I decided that in this thesis I should examine the learners' multilingual and multimodal repertoires and acknowledge their multiple resources in their repertoires. The following is a discussion of what a repertoire approach is, and the features of repertoire are also explained.

### 3.4.2 *A repertoire approach*

Repertoire is a concept from sociolinguistics. It came from John Gumperz's observation of an Indian marketplace where people used different local languages to bargain. Gumperz used the term 'linguistic repertoire' to describe this phenomenon. Gumperz later on defined linguistic repertoire as "the totality of linguistic resources (i.e. including both invariant forms and variables) available to members of particular communities" (Gumperz, 1986:20). His view of repertoire is a broad notion that concerns 'means of speaking', associated with Dell Hymes' concept of 'communicative competence'. However, his earlier work on linguistic repertoire did not address features beyond language explicitly. Sociolinguists such as Jan Blommaert, Alistair Pennycook, and recently, Betsy Rymes, take on this concept further and expand it to include communicative elements beyond language. With reference to Rymes' concept of "communicative repertoires", which is defined as "the collection of ways an individual uses language and other means of communication (gestures, dress, posture, accessories) to function effectively in the multiple communities in which they participate" (Rymes, 2014a: 302, 2014b: 117), she argued that today's massively globalised world calls for "an approach that re-envision[s] languages as one element of a communicative repertoire" (Rymes, 2014b:19). Comparing the concept of "communicative repertoires" proposed by Rymes (2014a, 2014b), to "linguistic repertoire" originally put forward by Gumperz, Rymes (2014b) explained that

[M]ultiple languages, multiple ways of speaking the "same" language, and many features beyond language can serve as part of an individual's communicative repertoire and function to create communicative alignment or *crosstalk* in interaction today. While Gumperz was using the term *linguistic repertoire* to describe the languages circulating in one community, today the use of "repertoire" has become increasingly

common as a way of describing how individuals deploy other modes of communication in addition to their multiple languages (p.9; original emphasis)

It can be seen that the contemporary understanding of repertoire places the emphasis on the power that speakers have as to how they use communicative resources depending on the situations they face. This focus on individual speakers is also suggested by Blommaert and Backus (2013) (see Section 3.4.2.1 for a discussion on the biographic dimension of repertoire).

Rymes (2014b) contrasted between the 'repertoire approach' and the 'linguistic monolith approach' with reference to multilingualism. She observed that while in the 'linguistic monolith' approach language change is frowned upon and is always competing with 'correctness', in the 'repertoire approach', language change in a context of high mobility is acknowledged, and these multiple 'versions' of language become 'repertoire elements'. The 'correctness' of these 'repertoire elements' is determined by the conventions and cultures of a particular context, not by a standard imposed from the so-called 'native-speakers'.

The repertoire approach challenges and problematises previous paradigms of multilingualism, such as additive and subtractive bilingualism, the "two solitudes" assumption (Cummins, 2005, 2008), and the "two monolinguals in one person" misconception (Grosjean, 1985, 1989), all of which are based on the idea that languages exist as separate entities. Languages change and evolve, and they change differently in different places. As Rymes (2014b) argued, this dynamism "adds to the richness of individuals' repertoires" (p.27). Therefore, multilingualism is increasingly being seen as a resource rather than as a hindrance to language learning.

The concept of repertoire is central to this thesis. In the following section I would like to highlight two characteristics of repertoire: 1) repertoire is mobile and multimodal, and 2) repertoire is truncated.

### 3.4.2.1 *Repertoire is mobile and multimodal*

While Gumperz associated linguistic repertoire with speech communities, which reflected the importance of the social, there is a 'biographic turn' to the understanding of repertoires, for instance in the work of Blommaert and Backus (2013), and also Rymes (2010, 2014a, 2014b). They introduced a biographic dimension of repertoire which puts the spotlight on an individual's life trajectory. To them, repertoires are records of mobility. Blommaert and Backus (2013) defined repertoire as "individual, biographically organized complexes of resources" (p.15). In a similar way, Rymes (2014b) defined it as an accumulation of an individual's "experiences and images" in which one can select and choose elements from their repertoires to "develop a potential for *comembership*" (p.10; original emphasis). This thesis adopts the aforementioned definitions of repertoire as a record of an individual's life trajectory and experiences. I have no intention to refute the original understanding of repertoire put forward by Gumperz which has a more social dimension to it. However, there is a need to re-think whether his perception of repertoire is apt for the contemporary world, for it is now increasingly mobile and diverse.

In addition to understanding repertoire as an individual's mobility and life trajectory, repertoire can be also understood in the broader context of globalisation and superdiversity. For instance, Pennycook and Otsuji (2014) introduced the concept of spatial repertoires in their discussion of metrolingualism. According to them, metrolingualism focuses on

everyday multilingualism in relation to local processes of globalization – everyday practices and lived experience of diversity in specific locations – while emphasizing the interrelationships between language and urban space (p.164).

Crucial to the concept of metrolingualism which explores the creative language practices observed in urban spaces (Otsuji & Pennycook, 2010; Pennycook & Otsuji, 2014), Pennycook and Otsuji (2014) called for a new way to understand linguistic repertoires - spatial repertoires which refers to the "linguistic resources at people's disposal in a given place" (Pennycook & Otsuji, 2014:162). Drawing

on Pennycook and Otsuji's (2014) study which on the one hand followed the language practices of an Algerian-born owner of a French bistro in Tokyo, together with staff who spoke Japanese and French, serving customers in a mix of Japanese, French and English, and on the other hand documented the interactions in the kitchen of an Italian pizzeria in Sydney with staff from Greece, Poland, Nepal, Thailand and India, the authors found that the repertoires formed through individual life trajectories are linked to the linguistic resources, artefacts, food, activities, movements and people available in particular places. They then argued that instead of focusing on what 'languages' are in the linguistic repertoire of an individual, a better way is to unpack the language practices that emerge from interactions at a particular place or from a particular activity. This is also known as "language practices from below" (Adami, 2017). Pennycook and Otsuji's (2014) study shows that linguistic repertoires are mobile. They are linked to a place and other environmental affordances, and are shaped by individual life trajectories and mobility patterns. Moving from one place to another, people bring with them their repertoires, therefore it is mobile. To sum up using their words:

Spatial repertoires are the available and sedimented resources that derive from the repeated language practices of the people involved in the sets of activities related to particular places. When we talk of spatial repertoires, therefore, we refer on the one hand to a general notion of the relations between semiotic resources and social spaces, and on the other to the specific repertoires of particular places (p.166-167)

The move from seeing language practices as sedimentary and immobile, to treating them as fluid practices which is mobile and unpredictable creates a need for a new understanding of linguistic repertoires. Gumperz's notion of linguistic repertoire, which is based on the idea of speech communities, has to be reconsidered due to this paradigm change. Busch (2012) revisited linguistic repertoire in light of superdiversity. In her study she argued that not only are linguistic choices determined by social rules and dimensions of an interaction, but they are also subjected to the "time-space dimensions of history and biography" (p.521). She further argued that linguistic repertoire is fluid and flexible; it is not geographically fixed, but is related to the different social spaces and moments in time. The repertoire of a person represents a broad range of "earlier voices, discourses and codes" (Busch, 2012:521, 2014:22) which

reflects their “polycentric learning experiences” and learning trajectories, all of which are partial or “truncated” (Blommaert and Backus, 2013; see also Section 3.4.2.2 of this chapter). This notion of “truncated multilingualism” or “fragmented multilingualism” is a highly disputable one as it implies that there is a “complete” repertoire (see Canagarajah, 2014). In short, Blommaert and Backus (2013) concluded by saying that “repertoires in a superdiverse world are records of mobility: of movement of people, language resources, social arenas, technologies of learning and learning environments” (p.28).

So far, the sociolinguistic understanding of repertoire emphasises linguistic resources, that is, language. However, not only are linguistic resources present in a person’s repertoire, additional semiotic resources (of which language is just one) form part of a person’s repertoire as well. From a social semiotic perspective, communication is always multimodal (Kress, 1997, 2003, 2010; Norris, 2004a; Bezemer and Kress, 2016), and therefore all communication involves the interlocutors to use multimodal resources that are apt for the situation, which could be linguistic or semiotic resources. Drawing on the idea of spatial repertoires that Pennycook and Otsuji (2014) used in their study, a person’s repertoire does not only reflect a person’s life trajectory, as mentioned by Blommaert and Backus (2013), but it also refers to the set of resources available at a particular place, be it linguistic or semiotic resources. Adding to this discussion, Rymes (2014b) further argued that “language” is a sub-feature of “communicative repertoire” (p.117) as it is just one of the many ‘repertoire elements’ that multilingual speakers draw on. These views all support the argument that repertoires are multimodal in nature.

#### 3.4.2.2 *Repertoire is truncated*

The second feature of repertoire is that it is truncated or fragmented. Blommaert and Backus (2013) suggest that the concept of repertoire

presupposes *knowledge* – ‘competence’ – because ‘having’ a particular repertoire is predicated on knowing how to use the resources that it combines (p.12; original emphasis)

Adopting this view, language learning, at least in this thesis, refers to learning ‘the means of language’, which in contrast to our conventional understanding of

language learning, comprises of a wide spectrum to how a language is learnt, ranging from highly formal (e.g. classroom instruction) to highly informal (e.g. picking up random vocabulary here and there). Blommaert and Backus (2013) argued that language learning is not a cumulative process, but rather “a process of growth, of sequential learning of certain registers, styles, genres and linguistic varieties while shedding or altering previously existing ones” (p.15), and as a result, no one can finish learning a language. Therefore, a repertoire is always ‘truncated’ or ‘fragmented’. (Blommaert, Collins & Slembrouck, 2005; Blommaert & Backus, 2013; Blommaert, 2014; Juffermans et al. 2014). By ‘truncated’ or ‘fragmented’ they emphasise the limited extent of the additional language that is being used by a multilingual (Rymes, 2014b). Some of the learning is ‘permanent and enduring’ (e.g. learning one’s first language), while others are ‘temporary and dynamic’ (e.g. learning a few phrases for travelling). In other words, a person’s repertoire is the result of polycentric learning experiences and it involves a range of learning trajectories with different degree of learning outcomes (Blommaert and Backus, 2013). Some languages, such as our first language, are there with us permanently and we can use it to perform a wide range of functions; some languages, such as the random phrases we learned from travelling to different places, only stay with us temporarily and our use of it is restricted to, for instance, simple greetings. Nonetheless, all of these bits of languages are part of our repertoire, and it is impossible to know an entire language. Therefore, repertoire is truncated and fragmented.

### **3.5 Connecting the three concepts**

The three concepts that I have discussed, translanguaging, multimodality, and multilingualism are interrelated concepts, although they came from different theoretical perspectives. Each of them contributes to the thesis in different ways.

Translanguaging is the starting point of the thesis. It gives me a lens to examine how exactly did the learners make use of their multilingual and multimodal repertoires to scaffold their learning of Chinese, and how they interacted between modalities and transcended the boundaries of language in this process. Furthermore, translanguaging, used as an analytical tool, adds value

to the data. Not only is there a focus on the structures, patterns and the languages used, but there is also emphasis on how learners bring fluid resources with them to the learning context, which could result in temporary or permanent learning. Instead of focusing on the different languages used, translanguaging focuses on the learners.

Translanguaging refers to the strategic employment of linguistic and semiotic resources in a multilingual speakers' repertoire to make meaning (García and Li Wei, 2014). It challenges the traditional understanding of bilingualism and multilingualism. Traditional notions of language learning are based on a model in which two or more languages exist separately in a person's repertoire and they operate as two or more distinct linguistic systems, that is, "two monolinguals in one person" (Grosjean, 1985, 1989), or the "two solitudes" assumption (Cummins, 2005, 2008). Translanguaging problematises these views. Instead, it is a process of knowledge construction that goes beyond different linguistic structures and systems and different modalities (Li Wei, 2018). This is in line with a social semiotic understanding of meaning-making in a way that both of them acknowledges the value of semiotic resources in addition to language. This view of translanguaging includes the dimension of multilingualism and multimodality, which is well documented in the translanguaging literature. New concepts such as 'multimodal translanguaging' (Melo-Pfeifer, 2015; García-Sánchez, 2017), 'multimodal languaging' (Busch, 2014; Gynne and Bagga-Gupta, 2015; Joutsenlahti and Kulju, 2017), or 'transmodal translanguaging' (Hong and Chan, 2017) start to appear in the literature, however, not without criticism, for they are seen to be implicitly perpetuating the view that language is the superordinate of all forms of semiosis (see Adami, 2017), and therefore we must be cautious when using these new terms and understand the connotations that they carry. Similar to social semiotic multimodality, a translanguaging perspective emphasises the orchestration of modes, but translanguaging goes beyond that; the process of translanguaging goes beyond modes. While there is an explicit connection between translanguaging and multilingualism, and between translanguaging and multimodality, the link between multilingualism and multimodality remains to be made explicit in the existing literature. This is a gap that this thesis aims to

fill. In addition, this thesis would also like to strengthen the connections between language learning and multilingualism research.

The languages that multilingual learners possess are resources for learning. At first glance, it seemed that social semiotic multimodality could provide the toolkit to analyse the relations between modes, including language. However, for the purpose of discussing the meaning-making process demonstrated by multilingual learners in online language learning platforms, I find it necessary to make the distinction between the linguistic and the semiotic, and to demarcate language from the semiotic as a whole. The reason for doing so is that for the purpose of this research, I would like to demonstrate, in particular, how multilingual learners use different bits of languages that they have in their repertoires as resources for learning. Nevertheless, this stance does not suggest the centrality of language. As mentioned in Li Wei (2018:22), language is a “multisensory and multimodal semiotic system interconnected with other identifiable but inseparable cognitive systems”. By examining the linguistic, I aim to highlight precisely the creativity and criticality that language learners possess, to examine how they play around with the boundaries of language systems and writing systems. In other words, the separation of linguistic and the semiotic is done out of methodological concern. I recognise that in reality, language is part of the semiotic system, and that language is part of the multimodal ensemble which has equal status with other modes. To sum up, this approach does not imply the superiority of language, as it is inseparable from the semiotic system.

Social semiotic multimodality is a helpful tool to understand the affordances of the platform. Without this knowledge, it would be difficult to comprehend what kind of resources were provided to the learners, and how learners adopted these resources in their own way. It provides a framework for me to systematically analyse the pedagogic work that each mode does in the platform. This analysis is presented in Chapter Five of the thesis.

To sum up, multilingualism, multimodality and translanguaging are interconnected concepts which form the pillars of this thesis. The relation



between these three fields of study, and their central assumptions are illustrated in Figure 3.1:

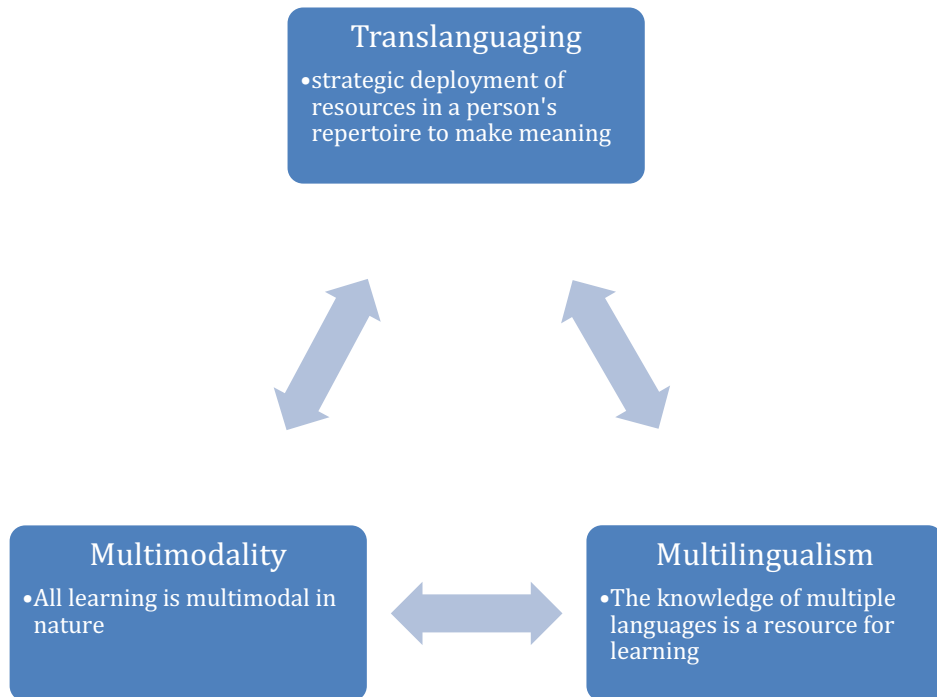


Figure 3.1: Relationship between multilingualism, multimodality and translanguaging

### 3.6 Summary

In this chapter I have explained the conceptual framework of the study, which is made up of three concepts: translanguaging, multimodality, and multilingualism, with reference to language learning. I have given a detailed review of translanguaging, in particular from a languaging perspective, and I discussed how the trans prefix added to the discussion of languaging by incorporating multimodality and multilingualism. Afterwards, I have explained the social semiotic approach to multimodality to argue that all learning is multimodal. I have reviewed studies on multilingualism to illustrate the need to see it not as a deficit, but as a resource for learning. I have also attempted to demonstrate two

features of repertoires: 1) repertoire is mobile and multimodal, 2) repertoire is truncated. I have concluded the chapter by connecting these three concepts and presenting how they can contribute to the thesis in different ways. The next chapter presents the methodological approaches that I have used for the thesis.

## **Chapter Four: Methodology**

### **4.1 Chapter synopsis**

This chapter presents in detail the methodological framework of the study. First, I present the perspectives which influence my data collection and data analysis process, namely ethnography and social semiotic multimodality. Then I explain the criteria which were used to select the focal online language learning platform and the participants featured in the study. I then explain the data collection procedures, the types of data that was obtained and the method of data analysis. I also present an overview of the participants featured in the study. At the end of the chapter I discuss the reflexivity as a researcher, challenges that I faced, and the ethical issues that I encountered in the research.

The overall methodological framework I am using in the study on which this thesis is based is informed by ethnography. In particular, I adopt a case study design (Yin, 2009) by following 11 individual learners through a period of four weeks. Four cases are isolated for detailed analysis, featuring four learners. For each of the 11 learners, I conducted screen-mediated observation, pre and post study semi-structured interviews with the use of thinking-aloud protocols.

### **4.2 Using ethnographic tools**

Green and Bloome (1997) distinguished three approaches to ethnography: doing ethnography, adopting an ethnographic perspective, and using ethnographic tools. It is important to point out that this study uses ethnographic tools to understand learners' engagement on OLLPs, rather than doing ethnography in the strictest sense. This decision is made with respect to my research question, which in turn affects my degree of participation as a researcher (Rutter and Smith, 2005). A typical ethnographic study focuses on the production process, the pedagogic materials, and how users interact with the materials. However, the present study is focused on the pedagogic materials and learners' interactions with it. What learners interact with will form

a basis of what kind of pedagogical materials will be covered in the study (see Table 4.1 for a summary).

Blommaert (2007) pointed out that ethnography is an open, exploratory, and experimental platform which can be used across disciplines. In particular, there is an increased interest in recent years on linguistic ethnography, which is seen as an 'umbrella term' to encompass 'sub-traditions' of sociolinguistics, such as interactional sociolinguistics, critical discourse analysis, etc. (Rampton, 2007a, 2007b; Creese, 2008). Even though ethnography is under constant criticism because of its alleged lack of objectivity and validity, it is still widely used in social sciences as it provides rich data and it reflects the complexity of social life (Hine, 2000).

The case study is one form of ethnographic design (Creswell, 2012), which is widely known as:

a qualitative approach in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information... (Creswell, 2013:97)

By adopting a case study approach in conjunction to the use of ethnographic tools, I am able to separate out cases due to their unusual nature, or because they provide insight into an issue (Creswell, 2012).

#### *4.2.1 Observation*

Central to any kind of ethnographic approaches is observation, which is one of the key ethnographic tools that I have used in this research. Two kinds of observations were employed in this thesis: 1) observing from a distance, and 2) screen-mediated observation. The importance of observing from a distance at the initial stage of the research is recognised by Schensul and LeCompte (2013). They defined observation from a distance as "the way researchers initially observe activities related to the topic of interest" in an unobtrusive way (p.88). The purpose of it is to orient the researcher with the research setting(s). It was through this kind of observation from a distance at the initial stage that I realised the inadequacy of doing a 'typical ethnography'. Typical ethnography is

not the most appropriate way to explore this particular environment as there was actually very limited interaction among learners, especially learners who do not know each other in real-life. In such an environment, it is more suitable to select relevant ethnographic tools to track the progress of recruited learners for a period of time rather than doing a typical ethnography, which is more suited for understanding the practices of a group of people in a community. Screen-mediated observation was carried out after observing from a distance so that I could obtain more rich data from selected participants. Participants were asked to install a software called Camtasia which recorded their computer screens as well as using the web cam to record their facial expressions as they were looking at their screens.

Data collection methods should be informed by the research questions. As I am interested in the use of resources by learners, I draw on the perspective of linguistic ethnography in which researchers are free to select data collection strategies, such as participant-observation, or ethnographic interviews, to “inform the language produced independently of the researcher’s immediate involvement”, and one such ways is to ask participants to record their own practices (Tusting and Maybin, 2007:579). The use of learners’ own recordings will be discussed later in section 4.6.3 of this Chapter. To summarise, this study is ethnographic in the sense that it uses observation as a method, and it tries to understand the phenomenon under investigation from a participants’ perspective. One advantage of using ethnographic tools in this study, particularly linguistic ethnography, is that it allows researchers to “deploy concepts other than those used by participants themselves”, thus allowing researchers to “form an independent angle on participants’ views” (Sealey, 2007:643). To summarise using Tusting and Maybin’s (2007) words:

The use of formal, structured tools of language description inevitably provides a perspective which draws the analysis away from participants’ situated knowledge and understandings. People’s empirical experience of a language can be quite different from the real properties analysed by linguists... (p.579)

This is particularly true in the present study as I am tapping into the repertoires that learners possess, and how they draw on resources from their repertoires in a fluid and dynamic way that is apt for the situation. Participants may not be

aware of doing it themselves, and so linguistic ethnography allows me, as a researcher, to see their online language learning practices through a translanguaging lens so as to map out how they move between their full linguistic and semiotic repertoire when they learn Chinese.

#### 4.2.2 *Interview*

Different types of interview were used in the data collection stage: structured and semi-structured interviews, conducted through different medium: face-to-face (if possible), Skype, Skype chat, and email. Each of these interview methods has its pros and cons. Kvale (1996) described the qualitative research interview as “a construction site for knowledge”, an *inter view* involving an “interchange of views between two persons conversing about a theme of mutual interest” (Kvale, 1996, 2007). In addition to this, Cohen, Manion and Morrison (2011) described an interview as a “flexible tool for data collection” which allows for the use of “multi-sensory channels”, such as verbal and non-verbal means of communicating ideas between the interviewer and the interviewee (p. 409). In the thesis both structured and semi-structured interviews were used to elicit different kinds of information. Structured interview was used to obtain factual information such as the basic information of the learners, whereas semi-structured interview was used to obtain information that were related to learning experiences in order to encourage a more open response. Admittedly, because of the geographic locations of the recruited learners and the time differences between me and the recruited learners, most interviews were done on Skype, which has its own affordances and constraints for both the interviewer and interviewees. Follow-up questions were always sent through Skype chat or email, which presented a different set a challenge as well, such as the long gap between the question and response, and the loss of coherence (James and Busher, 2006).

#### 4.2.3 *Thinking-aloud protocols*

From a Vygotskian perspective of learning, second language learning is seen as a mediated process. In particular, Lantolf (2000) mentioned the importance of self-mediation in language learning, which relates to private speech in the

sociocultural literature. This kind of self-directed speech is not easy to obtain, especially from adult learners, and therefore the thinking-aloud method could help to elicit this data from participants.

The key characteristic of a think-aloud method is that learners are asked to “verbalise their thought processes” as they are learning (Nunan, 1992:117). This is usually done while the task is on-going so that researchers can access short-term happenings in the learner’s working memory (Ericsson, 2003). This is not to be confused with the talk-aloud protocol in which the verbalisation is done retrospectively. Gass and Mackey (2000) mentioned that researchers can use verbal reporting to observe the different approaches individuals used to solve problems. Cotton and Gresty (2006) used the think-aloud method to find out how first year nursing students used e-resources and identified the factors which influenced their navigation. In their study, as they did not want to influence students’ verbalisation, only general instructions were given. However, under this situation students showed difficulty in deciding what thoughts to articulate as they did not know which type of thoughts they should focus on (Cotton and Gresty, 2006; also in Calderhead, 1981). In my study of OLLPs, this was not a big problem as the participants in my study were all mature students who were able to articulate their thoughts with little prompting. Moreover, as observation was not done face-to-face as in Cotton and Gresty’s (2006) study, participants were not doing it under an experimental condition, which encouraged them to express their thoughts freely. The design of my study was to provide minimal prompting as Ericsson and Simon (1984) pointed out that “differences in performance were induced by telling the subject *how* to verbalise” (p. 107). In this study learners were asked to use this technique while they were going through the different lessons to let me understand their choice of resources and reading path. Other limitations of the think-aloud protocol include learners having to split their attention between the task and the narrative, as well as the performative nature of learners, as they were doing something that they were not familiar with. The limitations of this method are further discussed in section 4.9.1.

#### 4.2.4 Using ethnographic tools to research virtual environments

The use of the Internet in qualitative research is an emerging phenomenon as the world is becoming more and more connected. At the same time, researching the Internet is different from researching a physical environment as it is virtual and fluid. Therefore, special attention has to be given when researching the Internet.

Hine (2000) commented that “an ethnography of the Internet can look in detail at the ways in which the technology is experienced in use” (p.4). Teaching and learning in the virtual world is a new phenomenon in which tacit rules of participation is still developing. She then pointed out that the aim of ethnography of the Internet is “to make explicit the taken-for-granted and often tacit ways in which people make sense of their lives” (p.5). This calls for a method which is exploratory in nature which allows the researcher to observe every possible aspect of how the platforms are being used. She also mentioned the idea of *situatedness*, in which she stated that “viewing texts ethnographically...entails tying those texts to particular circumstances of production and consumption” (p.52). In light of this, ethnography would be the most appropriate approach to explore how this emergent practice – the use of OLLPs - takes place, and how people make use of the linguistic and semiotic resources available to learn Chinese.

Nonetheless, there are also challenges using ethnographic tools in this study. In an online setting, it is difficult to define the boundaries of a field site and thus it has to be explored by the researcher (Hine, 2000). Also, virtual ethnography only provides a partial description of the participants (Hine, 2000). In order to overcome this, a combination of data from the ‘virtual’ and the ‘real’ is needed. This explains why this research uses ethnographic tools in combination with other methods, namely screen-mediated observation and thinking-aloud protocol. The next section explains the other approaches that I used to collect, analyse and present data, which is informed by Social Semiotic Multimodality.



### 4.3 Social Semiotic Multimodality

Jewitt, Bezemer and O’Halloran (2016) have distinguished two approaches to conducting a multimodal study: doing multimodality, and adopting multimodal concepts. This thesis adopts the latter approach - adopting multimodal concepts. Adopting multimodal concepts enables me to selectively draw on multimodal concepts that are useful for my analysis. In particular, I am drawing on multimodal concepts informed by Social Semiotics which is based on the concept of ‘motivated sign’ (see Chapter Three of the thesis).

In the last decade there has been a move to bring “multimodality and ethnography into dialogue with each other” (Dicks, Flewitt, Lancaster and Pahl, 2011:227). Semiotics is seen as a study of meaning and ethnography a study of social context. Atkinson, Delamont and Housley (2008) criticised the fragmentation of ethnography into separate methodologies. On the contrary, they see ethnography as the analysis of “social and cultural life with a proper regard to the many modalities of action and organization” (p.2). Kress (2011) held similar view that ethnography and multimodality can work in ‘partnership’ with each other. He explained that while semiotics focuses on meaning-making, ethnography can give insights on ‘the goings-on’. Therefore, the relationship between social semiotics and ethnography is one of ‘cooperation’ and ‘complementarity’ (Kress, 2011; see also Dicks, Soyinka and Coffey, 2006; Dicks, Flewitt, Lancaster and Pahl, 2011; Domingo, 2012). The table below summarises the methodological frameworks and data collection methods used at each stage of the research.

Table 4.1 A summary of the methodological frameworks and data collection methods used at each stage of the research

Stages	Relevant questions to ask	Methodological frameworks / data collection methods	Corresponding chapter(s)
Design process of materials	<ul style="list-style-type: none"> <li>• Who designed the learning environment?</li> <li>• How was it designed</li> </ul>		Not the focus of this study
Pedagogic materials (The platform)	<ul style="list-style-type: none"> <li>• What resources does Memrise provide?</li> <li>• What are the affordances of these resources?</li> </ul>	<ul style="list-style-type: none"> <li>• Ethnographic tools               <ul style="list-style-type: none"> <li>○ Online observation</li> </ul> </li> <li>• Social semiotic multimodality</li> </ul>	Addressed in Chapter Five

	<ul style="list-style-type: none"> <li>• What meanings do the modes realise?</li> </ul>		
The learners	<ul style="list-style-type: none"> <li>• What resources do learners possess?</li> <li>• How do they use them differently to learn Chinese?</li> </ul>	<ul style="list-style-type: none"> <li>• Ethnographic tools <ul style="list-style-type: none"> <li>○ Semi-structured interviews</li> <li>○ Online observation</li> </ul> </li> <li>• Social semiotic multimodality</li> </ul>	Addressed in Chapter Six
Learners' interaction with pedagogical materials	<ul style="list-style-type: none"> <li>• What linguistic and semiotic resources do learners use to learn Chinese?</li> <li>• How and why do learners make use of those modes?</li> </ul>	<ul style="list-style-type: none"> <li>• Ethnographic tools <ul style="list-style-type: none"> <li>○ Semi-structured interviews</li> <li>○ Online observation</li> </ul> </li> <li>• Social semiotic multimodality</li> <li>• Translanguaging</li> </ul>	Addressed in Chapter Seven and Eight

#### 4.4 Moment Analysis

In Li Wei's (2011) paper, he proposed the use of Moment Analysis to investigate translanguaging empirically. In his words,

A moment can be a point in or a period of time which has outstanding significance. It is characterised by its distinctiveness and impact on subsequent events or developments (Li Wei, 2011:1224)

He commented that a lot of applied linguistics research are "regularity-oriented" which focuses on frequency and patterns, and he called for a need for a paradigm shift to explore "spontaneous, impromptu, and momentary actions and performances of the individual" so that analytic attention can be devoted to "critical and creative moments of individuals' actions" (p.1224). To do this, observation and recording of naturally-occurring interaction and metalanguaging data are needed so that the researcher can make sense of how participants make sense of their world (Eatough and Smith, 2008; Smith and Osborn, 2008; Smith, Flowers and Larkin, 2009).

The moment analysis that is used in this thesis is based on Interpretative Phenomenological Analysis (IPA), which is a qualitative research method used in psychology. It uses a phenomenological approach which aims to produce

accounts of participants' experiences based on their perceptions, but not objective descriptions of events or experiences. In order for researchers to make sense of how participants make sense of their world, a two-stage interpretation process, also known as a double hermeneutic, is involved, as researchers try to make sense of the participant trying to make sense of what is happening (Smith and Osborn, 2008; Smith, Flowers and Larkin, 2009). Due to its nature of detailed examining the experiences of participants, IPA is idiographic in the sense that it focuses on exploring the experiences of a small number of participants. The use of this method requires researchers to get as close to the participants' ways of seeing as possible by taking an "insider's perspective" (Conrad, 1987), or the emic approach in the context of anthropology (Pike, 1967). The active role of the researchers also means that multiple interpretations are possible.

Moment analysis is particularly suited to multilingualism research because it takes into account the unique experiences of individuals. Used in conjunction with a repertoire approach, it is possible to obtain a holistic view of how individuals make meaning out of the use of the different resources in their repertoires. As Li Wei argued,

the orders of indexicality amongst languages, language varieties and language choices are subjective and exist in the minds of the individuals. They are not simply "brought along" by the participants of social interactions, but can be "brought about" through specific social practices including multilingual practices (Li Wei, 2011a: 1224; see also Li Wei 1999, 2005).

This thesis takes the view that Memrise, the OLLP featured in this study, offers a "translanguaging space" (Li Wei, 2011a) for learners to experiment with creative multilingual practices (see Chapter Seven). After presenting the methods that inform the data collection and analysis of this thesis, the following section outlines the process of data collection, which is divided into two stages: 1) the pilot study (February 2014 – June 2014) and 2) the main study (September 2014 – July 2015).

## 4.5 The Pilot Study

A pilot study was conducted between February 2014 to June 2014. It was divided into three phases: 1) Screen recording using QuickTime Player, 2) Screen recording using Camtasia and video recording using digital camera, and 3) Screen recording using Camtasia. The objective of the pilot study was to help me select the best tool for data collection, and to test the procedures of the data collection to see if I needed to make any changes in the main study. Before the pilot study started, I had to select the focal OLLPs.

### 4.5.1 *The selection of the focal OLLPs*

The selection process began in October 2013. It involved using a search engine to search for the platforms available online, using key words such as 'online language learning platforms', 'language learning online', 'online language courses', or a combination of these key words. A list of platforms was then identified. The next step was to observe and examine each of them to determine if they met my research objectives. There were five main criteria that guided my selection:

1. They offer Mandarin Chinese courses – This is informed by the research question about how English-speaking learners use linguistic and semiotic resources available in online platforms to learn Chinese.
2. They make use of different language teaching pedagogies - One of the key questions in this research is to answer how the use of modes shape teaching and learning, specifically, how modal affordances are reflected in language teaching pedagogy. That is why it is desirable to select a range of platforms that uses different pedagogies for comparison (this has changed as the research progressed. See Section 4.5.6 of this chapter for details).
3. They use English as the language of instruction – Learners are recruited from all parts of the world, so it is vital that the platforms provide English instructions. It is also important that I understand the instructions as well so I can analyse the resources that the platforms offer.

4. They have a considerable number of active users and have gained some popularity in the market.

5. They offer free content.

Observation was done in several ways: First, I observed the basic operation of the platforms by signing up as a member myself in order to understand the technical orientation of the platforms. In total I observed 22 platforms based on the search results of Google. Within these 22 platforms, I discarded platforms that did not fit my criteria. I then signed up for five platforms and observed them in detail: Livemocha, Memrise, ChinesePod, busuu, and lingq. The latter two (busuu and lingq) were discarded afterwards, busuu being too complicated to navigate, and lingq for the lack of response from other members.

With the remaining three platforms (Livemocha, Memrise, and ChinesePod), I conducted a pilot study to observe how recruited learners used them to learn Chinese. In the pilot study I used three ways of observation: observation in online setting (for observing the affordances of the platforms), observation through screen-recording (for observing how recruited learners interact with the platforms), and observation in physical setting to compare the pros and cons of conducting these three kinds of observations. Tables 4.2 and 4.3 below show the similarities and differences between the different observation methods I used and how they differ from observation in physical setting:

Table 4.2: The similarities and differences between observation in online setting and observation in physical setting

	<b>Observation in online setting</b>	<b>Observation in physical setting</b>
<b>Similarities</b>	‘real-time observation’	
<b>Differences</b>	Easier to retain the multimodal nature of the data	Harder to retain the multimodal nature of the data
	Less obtrusive to participants	More obtrusive to participants

Table 4.3: The similarities and differences between observation through screen recording and observation in physical setting

	<b>Observation through screen recording</b>	<b>Observation in physical setting</b>
<b>Similarities</b>	The focus on the screen content	
<b>Differences</b>	Relatively easy to observe both screen content and facial expression with the help of screen-recording software such as Camtasia	Hard to observe both the screen content and facial expression at the same time
	Absence of contextual detail	Presence of contextual detail
	'Retrospective observation'	'Real time observation'
	Less obtrusive to participants	More obtrusive to participants

After comparing the pros and cons of these three kinds of observation methods, I decided to employ observation through screen-recording as the main observation method in this thesis.

#### 4.5.2 Phase 1: Screen recording using QuickTime Player

After three months of familiarising myself with the platforms, I started making screen recordings using QuickTime Player. It recorded the content on the screen, or alternatively I could record part of the screen. Audio recording was also available. These screen recordings allowed me to investigate the features of the platform. However, although using QuickTime Player allowed me to make recordings using the web cam of my computer, it was difficult to combine the screen recording and the web cam recording seamlessly.

#### 4.5.3 Phase 2: Screen recording using Camtasia and video recording using digital camera

As I realised that QuickTime Player was not the most appropriate screen recording software that I needed, I started searching for alternatives. I came across Camtasia which allowed me to do both screen recording and web cam recording at the same time. It also allowed me to combine the screen recording and web cam file seamlessly in one file so I could easily compare what occurred on the screen with the users' facial expressions on the same timeline. For the sake of experimenting with what more data I could possibly get, I also set up a digital camera which aimed to record the parts of the body not covered by the

web cam to see if anything was worth taking note of, but after examining the footage, it seemed that only using Camtasia would suffice to answer my research question. As learning using the computer does not require much body movements, observing the screen and facial expression would provide me with enough observation data.

#### 4.5.4 Phase 3: Screen recording using Camtasia

This is the most important phase of the pilot study. At this stage I had already selected the most appropriate data collection method, and so I could focus on the procedures of collecting data.

#### 4.5.5 The process

The participant for my pilot study, Anne, was a doctoral student in London. We knew each other since October 2013 attending the same courses together. This part of the pilot study started in the summer of 2014.

At the start of data collection, a structured interview was conducted with Anne. Several questions were asked about her background, linguistic repertoire, and her experience of using technology to learn languages. These questions helped me gain an understanding of what kind of learner she was.

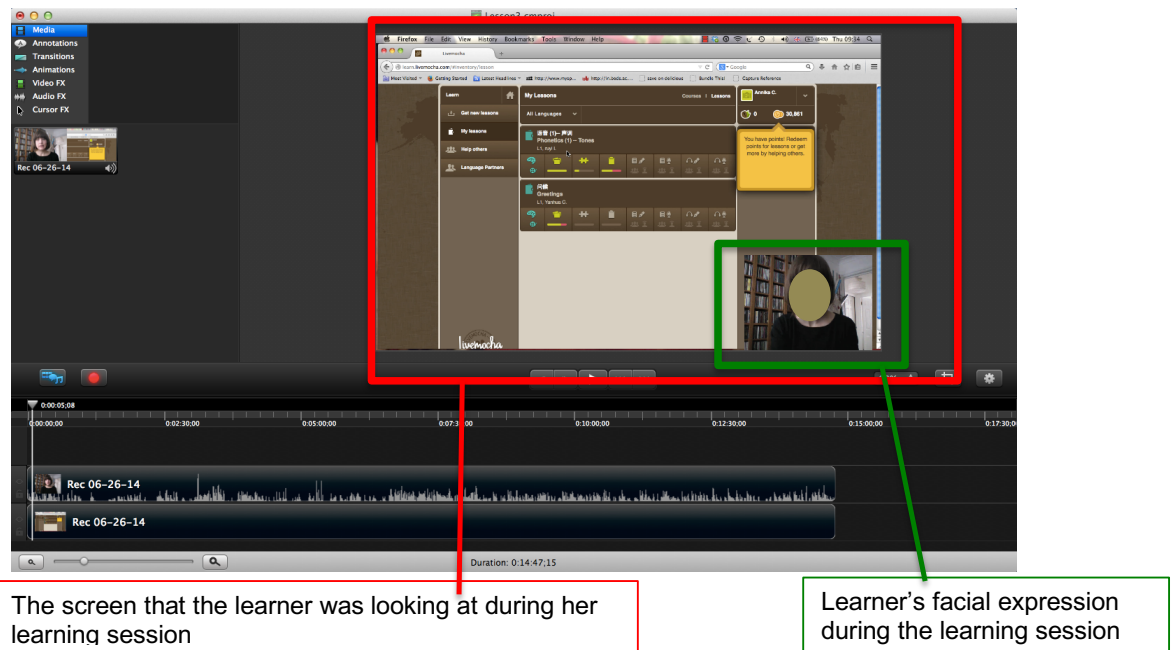


Figure 4.1: The interface of Camtasia

Figure 4.1 shows the interface of Camtasia. It records the screen and the face of the learner at the same time, situating both information on the same timeline. The screen recording video gave me access to what was happening on her screen and her facial expression retrospectively. I would not be able to obtain this data if I were doing a conventional online ethnography. After completing the lessons online, she was also instructed to write a learning diary to document her learning process.

The next stage was the semi-structured interview to follow-up any questions that she did not address in the thinking-aloud and the learning diary. It was also recorded by Camtasia.

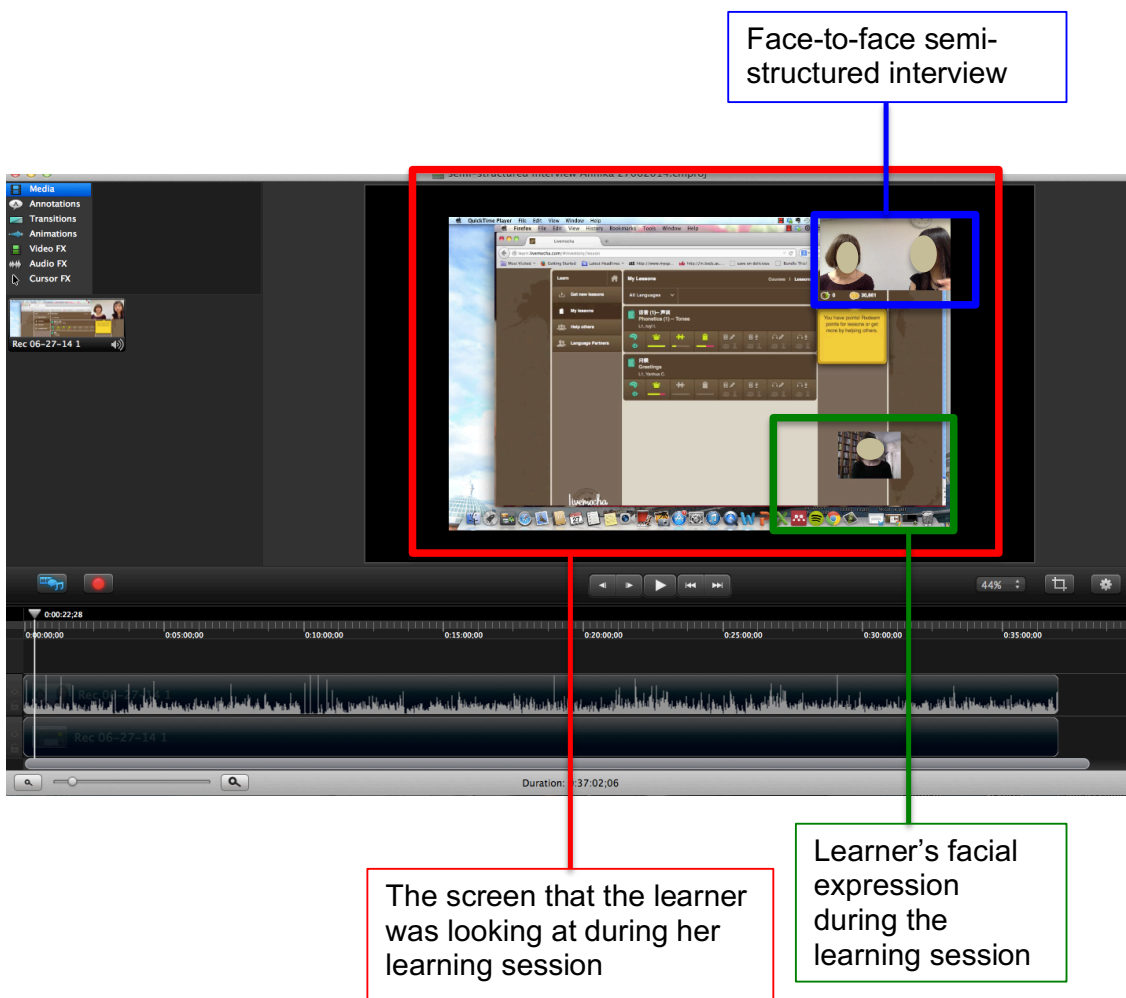


Figure 4.2: Semi-structured interview



Figure 4.2 shows how the semi-structured interview was conducted. The screen that she recorded for her lesson was shown in the centre, the bottom-right corner shows her facial expression while she was recording her lesson, and the top-right hand corner shows the instance when we were having the interview, which happened a few days after she completed her learning sessions. In that interview I used the stimulated recall technique in which I played back the recording to her when addressing certain questions so she could remember what she did or said and elaborate further on that.

#### *4.5.6 Reflections on the Pilot Study*

The purpose of the pilot study was to test out the data collection methods that I would be using in the main study, and to find out whether these data collection methods enabled me to collect data which answered my research questions. In the pilot study, the research question which I sought to answer was ‘how do higher education (HE) students engage with the teaching materials provided?’. Admittedly, it was still a very broad research question, and therefore after the pilot study, I narrowed down the scope of the thesis and was able to figure out a more specific research question for the study, which is “how do learners use resources in their repertoire to make meaning when learning Chinese in an online, self-directed context?”.

As regards the data collection methods, a combination of screen recording, thinking-aloud, learning diary, structured and semi-structured interview worked well together as they complemented each other. However, from the point of view of participants, the technical aspect of the study might have been an obstacle.

The use of Camtasia was manageable. The difficult part had been the file transfer, which took an hour to complete each time. In the main study, this was still an issue. Participants recalled spending hours trying to upload the videos. This was unavoidable due to the large file size of the recording. In the main study, instead of using Dropbox, I used the UCL Dropbox (<http://www.ucl.ac.uk/dropbox/>), which was secure and had a larger capacity.

The use of the thinking-aloud technique was successful in the pilot study. As I watched the recording, I felt that I existed in the same space with Anne and that she was directly talking to me. It was as if I was in the same room observing her in real time. The use of a learning diary was meant to be a tool to help Anne reflect on her learning experience after each lesson that she took. The use of a learning diary, in the case of Anne, did not work well as most of what she wrote was the same as what she said in the 'thinking-aloud'. This was also a problem that she pointed out a few times in the semi-structured interview. After reflection, in the main study I decided to make the learning diary an optional component as it did not provide extra information, and yet it added to the workload of the participants.

In the pilot study I used the stimulated recall technique to clarify specific events occurred in the recording. I thought it would be a useful tool to help Anne recall what she did in the lesson. However, after reviewing the literature, I realised that it would be problematic in the main study when I was going to have weekly interviews with the learners because the accuracy of the recall would decrease as there would be a longer than expected interval between the event and the recall (Bloom, 1954; Yinger, 1986; Cotton and Gresty, 2006). Therefore, I had decided not to use the stimulated recall technique in the main study.

In terms of the number of interviews, initially it was planned that three interviews would be conducted during the four-week study. One before the study began, one in the middle of the study, and one at the end of the study. However, it was found from the pilot study that three interviews were not necessary, and this was cut down to two in the main study. It has to be clarified that as the pilot study and the main stage of data collection were not linear, separated events, the reflections made from the pilot study were operationalised gradually in the main stage of data collection. As a result, I still had conducted three interviews with the participants that I recruited in the early stage of the main study.

Every care was taken to minimise my effect in the screen recording process. I asked Anne to install Camtasia and recorded her lessons at home so she could

do her lessons in a natural setting. This strategy worked well because I gave minimal instructions on what she should do, and I stayed out of the process as much as possible, giving Anne a lot of autonomy on what she wanted to do. However, on a practical level, it has to be admitted that my absence in the process did not help much in terms of putting Anne at ease and enabling her to behave naturally. She mentioned in the semi-structured interview that “I knew that you were there, so I was talking to you”. It is clear that whatever she did, she was aware that I was watching, although not in real time, and that she would adjust her behaviour because of this. In practice, it is not entirely natural behaviour, and so a slight distortion of data was inevitable. The ‘observer’s paradox’ is discussed in greater detail in section 4.9.1.

One of the major changes that I made after the pilot study was instead of doing face-to face-interviews, I opened up the study so that people could participate through Skype. Although the pilot study was conducted face-to-face, I soon realised that it could also work in an online context. I could use the same format with people participating through Skype. It was a major breakthrough for me because at that point I had difficulty finding enough participants who I could meet face-to-face. This challenge is elaborated in section 4.9.2 of this Chapter.

The pilot study also helped me discover some of the practical issues that I had to be aware of when carrying out the main study. For example, I realised that more explicit instructions had to be given to participants on how to use Camtasia to record the screen and the face, and therefore in the main study I created a simple guide to help participants with the software (see Appendix 2). Also, I sent weekly reminders to participants to keep them on track, and to allow them a chance to ask any questions regarding what they had to do and to help them solve technical problems. This is particularly important when the participants were located in different parts of the world. In the pilot study, I realised that when Anne pointed at the screen with her finger, it was not captured in the camera, as the camera could only capture her face, but it could not capture Anne’s finger pointing at the screen. Therefore in the main study, I encouraged participants instead of pointing at the screen with their fingers or using deictic expressions, it would be better to also use the cursor to indicate

the part that they were referring to because the pointing action and the deictic expressions lost meaning if they are not captured in the screen recording.

Most importantly, after the pilot study, I decided to narrow down the number of focal OLLPs from three to one. This was informed by the results of the pilot study, my observation of the three platforms, as well as practical issues in terms of recruiting enough volunteers. As mentioned in the previous section, the reflections from the pilot study were operationalised gradually, and therefore data related to the other platforms were still collected at the early stage. The chosen OLLP, Memrise, allowed learners more flexibility to use their linguistic and semiotic resources creatively, and it had more users than the other two platforms, Livemocha and ChinesePod. Also, I had only two participants from those two platforms who volunteered to join the study. Their data was collected but it was later on discarded, and thus it was not reported here. In fact, I discovered at a later stage that Livemocha was no longer in operation. Those were the reasons why I decided to change the focus of the thesis, from comparing how three platforms are designed, to focusing on how learners learn Chinese using different resources in one platform.

#### *4.5.7 Fieldwork –Chinese Classes for staff at Institute of Education (IOE)*

In addition to observing recruited participants in an online context, I also conducted fieldwork in the IOE (now UCL Institute of Education) Chinese classes, as a parallel pilot study to the online observation mentioned in the previous section. The reason for observing these classes was to inform my understanding of how Chinese is taught in the language classroom, and thus it would help shape my thinking on the affordances and constraints of online platforms such as Memrise. These classes were held once a week. The ‘students’ were mainly staff from IOE who wished to learn Chinese, and the ‘teachers’ were masters or doctoral students at IOE, all of whom speak Chinese as their first language. The ethnographic fieldwork was conducted in June 2014 for one month. The purpose was to gain an in-depth understanding of the following:

- How is Chinese taught as a foreign language in a classroom context?
- How do adult learners learn Chinese?

As these classes were organised by student volunteers, and were not mandatory to staff, the number of students varied from time to time and the class size was small. Students were given materials, often photocopies of textbooks, and the lessons were structured based on that. However, students were able to ask questions that had direct relevance to their lives, instead of just learning generic vocabulary from the texts provided. Because of this flexibility, I often found students producing vocabulary or sentences that were beyond their level, and students clearly enjoyed the class because they could start talking to 'native speakers' about themselves, about what they did, about their hobbies. This observation contributed to my thinking about learners' interests and agencies, and how important it is to provide materials that are relevant to learners' needs. Another important observation that helped inform my study was that one student from the Chinese class was constantly consulting an online dictionary on his iPad throughout the lessons. It was an interesting observation because it would have been assumed that if he had any questions, he could have asked the teachers directly. However, despite the availability of 'real-time' help, he relied heavily on the online dictionary. This observation made me think about the affordance of different resources, and how learners choose between the different resources available to them and select the one that in their view might help them the most. Most importantly, learners traversed between online and offline spaces to search for learning resources. I began thinking about the notion of the resourcefulness of learners and how technology has changed the language learning landscape, even within the language classroom. Nevertheless, this observation of student using online dictionary during class could also be interpreted as his desire to cause minimal disruption to the class, or his avoidance of drawing unwanted attention. Taking on board the reflections and lessons that I had learnt from the pilot study, I started the main study in September 2014.

## **4.6 The Main Study**

### *4.6.1 Recruitment of participants*

Recruitment of participants for the main study started in mid-September 2014, and lasted until July 2015. It has to be noted that recruitment of participants and data collection occurred simultaneously. They were not linear events. The following means were used for recruitment:

- Social media (Facebook and Twitter)
- Forum (Unilang.org, how-to-learn-any-language, The Student Room, Confucius Institute Mandarin Chinese Teaching forum, Chinese-forums.com)
- Wordpress blog (multimodallanguagelearning.wordpress.com, see Figure 4.3)
- Memrise blog (see Figure 4.4)
- IOE Chinese classes
- Personal contacts

## Private: Recruitment of research participants

### Language learning in online platforms: A multimodal study of English speakers learning Chinese

Did you know that you can learn Chinese on the Internet for free? I am a doctoral student at the UCL Institute of Education in London. I am doing a PhD on online language learning platforms and I hope to recruit participants to help with my study. The study involves the use of three platforms: Livemocha, Memrise and ChinesePod.



By signing up on the above platforms, you will have access to a variety of Chinese classes which you can take at your own pace. You can also interact with other learners or native speakers of the language to practice your skills.

This PhD study aims at exploring the role of online language learning platforms in an informal learning environment, with a focus on teaching and learning Mandarin Chinese as a foreign language.

#### Who can take part in the research?

You can take part in the research if you are:

- Interested in or already learning Mandarin Chinese as a foreign language
- Aged 18 or above
- A native-speaker of English or other European languages

#### What are the benefits for you to take part?

By taking part in this research project:

1. You get a chance to learn Chinese for free
2. You will be supported with using the technology
3. You will be encouraged to reflect your learning
4. You can help language teachers to understand how people use online language learning platforms

#### What will happen if you take part?

If you decide to take part in the research, here are the things that you will do:

1. Attend a Skype briefing session where you will be assisted with using the technology
2. Record your lessons using screen-recording software at your leisure
3. Reflect on your experience and thoughts
4. Attend follow-up interviews on Skype

The duration of the study is one month. You will have finished four or more Chinese lessons by participating in the study.

#### Right to withdraw from the study

You can decide if you want to take part and, even if you say 'yes', you can drop out at any time or say that you don't want to answer some questions.

#### How do I take part in the study?

There are two ways you can take part in the study. You can either:

- Fill out the form at the bottom of the page, or
- Send me an email at [who01@ioe.ac.uk](mailto:who01@ioe.ac.uk)

#### Further questions?

If you have any questions, please feel free to contact me at [who01@ioe.ac.uk](mailto:who01@ioe.ac.uk).

The project has been reviewed by the Research Ethics Committee.

Thank you for reading this.

Name (required)

Email (required)

Where are you based in? (required)

What's your first language? (required)

What other language(s) do you speak? (required)


Are you a user of Livemocha/Memrise/ChinesePod? (required)

If yes, which one(s) are you using?

[Edit](#)

Online questionnaire to elicit basic information from potential participants


Figure 4.3: A screen grab of the Wordpress blog used for participants recruitment

 Home Courses Login [Sign up](#)

**The Official Memrise Blog** > Research on online language learning platforms - Your input is needed!

## Research on online language learning platforms - Your input is needed!

by [OliviaZavala](#) on 9 April 2015



Jennifer Ho is a researcher at the Institute of Education who is looking into different ways that people learn languages online. She got in touch with us to ask if any Memrisers might be able to help her in her research. Please do get in touch with her if you'd be interested in helping!

---

Dear Memrise users,



I am a doctoral student at the UCL Institute of Education in London. I am doing a PhD study on online language learning platforms and I hope to recruit participants to help with my study. This PhD study aims at exploring the role of online language learning platforms in an informal learning environment, with a focus on teaching and learning Mandarin Chinese as a foreign language.

You can take part in the research if you are:

- Interested in or already learning Mandarin Chinese as a foreign language
- Aged 18 or above
- A native-speaker of English or other European languages

By taking part in this research project, you can help language teachers understand how language learning is transformed by technology, and you can gain an in-depth understanding of how you use online language learning platforms to learn Chinese.

Please [visit this website](#) for more details of the research and feel free to contact me at [who01@ioe.ac.uk](mailto:who01@ioe.ac.uk) if you have any questions.

**About** ?

The official blog of Memrise. Crowd-sourcing the world's imagination to make learning easy and pleasurable.

**Latest posts** ●

Coffee, Cake and videos in ...  
By BenWhately

Winners of the April Course ...  
By knarusk

Rank your favorite food / di...  
By emeseakagg

German native speakers, M...  
By aasoerensen1

A quiz fit for Shakespeare D...  
By OliviaZavala

[RSS Feed](#)

Figure 4.4: A screen grab of the call for participants posted on the official Memrise blog



Online recruitment was the main method of recruiting participants for the study. This allowed me to gain access to a wider range of audience who were already using these platforms. It also helped raise the profile and publicity for the research (O'Connor, Madge, Shaw & Wellens, 2008). The CEO of Memrise, one of the OLLPs, permitted the posting of the message on its official blog. This was also the reason why most participants who volunteered in this study are users of Memrise.

A total of 85 people signed up through the Wordpress blog, which was also uploaded on the official blog of Memrise, Facebook, Twitter, and several forums. From them, 20 participants were chosen to participate in the study.

Selection criteria were as follows:

- L1 (European languages were preferred)
- L2 (a mix of multilinguals and monolinguals)
- Experience of using OLLPs (experienced users were preferred)
- Availability

It has to be noted that at the initial stage of the research, it was deemed conducive to have learners who speak a language that has little resemblance to Chinese so that I could gain an insight into how the resources provided by Memrise helped them to learn Chinese, without any help from their L1, as my initial focus was on the multimodal design of the platform, not on the use of learners' repertoires. This criterion was later on deemed unnecessary due to the changes that I made as the research progressed to give more weight to translanguaging (see Chapter 9 for explanations). Moreover, the decision to include the so-called monolinguals seemed counter-intuitive, but from a translanguaging perspective, no one is a monolingual. It is only a label that these learners put on themselves as they thought they were. By including them in the research, it demonstrated that they are also multilinguals, as seen in the example of George in Chapter 7. Furthermore, the preference of experienced learners was out of practical considerations. More data could be yielded as they were already familiar with the functions of the platform, and they could show me their creative ways of using it as they were more familiar with it. An example of

the creative use of Memrise is in Chapter Six, in the case of Daniel, an experienced user. The degree of experience using these platforms would have an effect on their selection of resources, but since this is not an experimental study, as long as the difference is acknowledged and taken into consideration in the analysis process, it is still valuable data.

Table 4.4: A table outlining the methods used, participants involved and data generated

<b>Methods</b>	<b>Participants involved</b>	<b>Data generated</b>
Online observation of the platforms	Registered users of the platforms	- Field notes - Screen grabs
Structured interviews	Recruited learners	Transcript
Observation through screen-recording	Recruited learners/registered users of the platforms (occasionally)	Camtasia recordings
Semi-structured interviews	Recruited learners	Transcript
Thinking aloud	Recruited learners	Transcript
Learning diary (optional)	Recruited learners	Written texts

Among the six methods used, observation through screen-recording was the main method of data collection. The other methods were supplementary.

#### 4.6.2 *The process*

Among the 20 participants whom I originally chose, 9 participants dropped out of the study either because of other commitments or loss of contact. As a result, I observed 11 learners closely.

Recruitment of participants was carried out simultaneously with the actual data collection process. Participants based in London were invited to the London Knowledge Lab (now UCL Knowledge Lab) for an initial briefing session where the details of the project were explained and consent forms were signed. Only one learner was based in London in this study. Assistance was given for the use of Camtasia and the assigned platform. After dealing with the practicalities and logistics of the research, a short structured interview was conducted to obtain basic information on the backgrounds of the participants. The next meeting was scheduled and each participant was asked to carry on learning at home.

For participants who signed up through the Wordpress blog, they were contacted by email to arrange a Skype meeting so I could explain the study to them and allowed them to ask any questions they had. I had also sent them the information sheet and consent form to sign electronically through email. This initial Skype meeting usually lasted for 30 minutes, and participants would then spend four weeks learning Chinese on their chosen platform(s).

During these four weeks, participants were asked to learn Chinese using their chosen platform(s) at their leisure. There was still hope at this stage that I would collect data from different platforms so that I could compare and contrast them with Memrise. However, as mentioned in section 4.5.6, although data was collected from other platforms, it only gave very limited insights and it was later on discarded, and thus it was not reported here. The duration and frequency of these 'learning sessions' were decided by the participants so as to allow flexibility. Nevertheless, they were encouraged to upload one 'learning session' to the designated UCL Dropbox that I created at the end of each week, but this was not strictly imposed on them. The UCL Dropbox was a secured storage space for participants to upload their folders, and it was only accessible by me.

At the start of the research, an online structured interview was conducted with recruited learners to elicit basic information from them, such as their age group, experience of using technology, experience of using OLLPs, as well as their language repertoire. After they had started taking Chinese lessons, the format of the interview would change to a semi-structured one to encourage more open responses. For learners who signed up online, an online questionnaire was given to the participants when they signed up on the blog to volunteer to participate in the study (see Figure 4.3). Basic information was collected: name, email address, place of residence, first language, second or other language(s), and whether they were using any online language learning platforms, and if yes, which one(s) they were using. This information was straight forward so it worked well by asking participants to fill it in by themselves. It also allowed me to select which participants to contact first. The answer to these questions tended to be simple and did not require a lot of thinking, so the online

questionnaire worked well to engage participants in the study without feeling overwhelmed, but at the same time also gave them a rough idea what the study was about.

The first email sent to the chosen participants asked for more specific information about their language learning background, and it also explained in more detail about the study. This email was drafted with the potential participants in mind. I was careful to leave out academic jargon and terms that were difficult for them to understand. I also adopted a 'down-to-earth' tone so that they did not feel pressured (see Figure 4.5). By asking participants to tell me about their language learning background and how they were using the platforms, it gave them more time to think about their responses, as these were not easy questions to answer immediately. This kind of questions required some thinking. All in all, the advantage of conducting asynchronous email interviews was that participants were given the opportunity to draft and redraft their responses (Mann and Stewart, 2000; James and Busher, 2006). Though interviewing by email is easy to set up, it is not without its problems. The ease and ubiquity of email made it easy for participants to ignore emails from the researcher so that the time-lag between questions and responses could be long, resulting in a lost spontaneity and interest. However, unlike studies that relied solely on email interviews, in this study it was only conducted as a starting point to open up participants to the research. Subsequent semi-structured interviews were conducted synchronously through Skype to keep momentum going.

Skype interviews were conducted at the start of the study (Week 1) and at the end of the study (Week 4/5). The selection of date and time of the interview was based on mutual consent by the participants and me. As participants were located in different time zones, careful scheduling was required. Also, the setting up of the interview was more complicated and it required more sophisticated technological skills from me. Nevertheless, this was the best possible way to interview participants given the fact that we were all located in different parts of the world, and it was the closest alternative to a face-to-face interview. The reason for choosing Skype as the medium of the interview was

because of its wide availability and was free to download. A lot of participants were already using Skype before the study so most of them were familiar with it. This ensured that participants were being interviewed in a comfortable environment.

Semi-structured interviews were conducted at the start and at the end of the study synchronously through Skype video call. For the first few participants, three semi-structured interviews were conducted (pre, during, post) but it was later deemed unnecessary, as the learners had already expressed a lot of their opinions and comments through thinking-aloud in the recorded learning sessions, and the second interview designed to be conducted in the middle of the study was often times a repetition of what they had already said in the recording. Therefore, only pre and post interviews remained for the rest of the participants. For the pre-study semi-structured interviews, general questions were asked relating to the following themes: language background, reasons for learning Chinese, reasons for using Memrise, experience of using language learning technology. The post-study semi-structured interviews mainly addressed the following issues: an in-depth discussion on the learners' engagement with Memrise, clarification of my observation and thoughts about the learners, and any other issues that the participants would like to raise. Some interviews were conducted asynchronously by Skype chat due to the poor Internet connection of a few participants.

Dear (name of participant)

Thank you for your interest in the research. I am a PhD student at UCL Institute of Education and I am researching on how English speaking learners use online platforms to learn Chinese. I want to understand how learners use the resources provided by the platform and create their own learning trajectory, instead of following a structured curriculum.

There are several parts to the research:

1. Briefing session

You will be invited to 'attend' a briefing session on Skype. The purpose is to talk you through the details of the research and to assist you in using Camtasia and the online platforms.

2. Screen recording at your leisure

You will then carry on with using Livemocha/Memrise/ChinesePod (or all three) to learn Chinese at your leisure without my presence, recording your screen and face using Camtasia. You will also 'think-aloud' while doing the recording. The files of the recording will be kept strictly confidential, only me and my supervisors will be able to watch it. In the occasion of academic presentations, only a short clip of the recording will be shown and no photography will be allowed by the audience.

3. Learning diary (optional)

After each lesson session you will write a brief learning diary to reflect on that particular learning session. This is an optional component.

4. Interview

You will be invited to 'attend' a Skype follow-up interview at the end of the study.

The duration of the research is one month. You will have finished at least four learning sessions by then. It is entirely up to you how much time you want to spend in each learning session, and what lesson you want to do.

Please let me know if you want more information about the research. I know we might be in different time zones so please let me know 1) which time zone you're at, and 2) if you have any preference for the Skype meeting, e.g. weekdays or weekends, day time or night time, etc. Meanwhile, could you tell me something about your language learning background, and how you are using Livemocha/ChinesePod/Memrise as part of your learning?

Many thanks and I look forward to working with you in this exciting research.

Best wishes  
Jenifer

Figure 4.5: An email sent to participants outlining the research

#### 4.6.3 *Observation through screen recordings*

The use of new technology as an observation tool is crucial to track the different learning paths that individual learners adopted in the study. As Reinders and White (2011) commented,

A reconceptualization of language education as the provision of a collection of affordances that start from the learners as individuals, and include classrooms, materials, native speakers, teachers, assessment, other learners, the workplace, and so on, has been made more practically feasible, and methodologically easier to investigate, through the pervasive use of technology (p.2)

As my main research question is to understand how different learners use resources to learn Chinese, it was crucial for me to gain access to the learners' engagement with the platform (Dooly and Helm, 2017). As a result, I decided to track individual users' engagement with the selected platforms using Camtasia screen recordings. It was a kind of indirect observation because I was not physically there when the recording was made, and so my observation was mediated by the recording. Screen recording was a way for me to keep a record of the screen so that I could view it repeatedly. It also allowed me to observe learners' learning trajectories in OLLPs without being intrusive. As I analysed the screen-recordings week by week, I was able to see the courses that each learner did, and which courses they progressed to the next week. I could also record the amount of time they had spent on a particular learning activity (see Chapter 6). Camtasia was used to record recruited learners' facial expressions as well as the content on the screen. As Heath and Hindmarsh (2002) pointed out,

[Videos recordings] allow us to capture versions of conduct and interaction in everyday settings and subject them to repeated scrutiny using slow motion facilities and the like. Thus, they provide access to the fine details of conduct, both talk and bodily comportment. They allow us for example to track the emergence of gesture, to determine where people are looking and what they are looking at, and to recover the ways in which they orient to and handle objects and artefacts...(p.103)

By asking recruited learners to record their screen whenever they wished without the researcher's presence, it was one of the least intrusive and the most naturalistic environment offered to them (Rutter and Smith, 2005). It also

imitated the setting of out-of-class learning in real life, where learners used the platforms at their leisure without any kind of supervision. As Heath and Hindmarsh (2002) further suggested, “[v]ideo recordings therefore provide us with a resource with which to analyse ‘situated’ action, as it emerges within its ordinary ecologies” (p.103). Nonetheless, there are limitations to using screen recording data as well. Similar to video recording, screen recording only provides a partial representation of reality. It cannot capture happenings outside of the screen which might affect learners’ behaviour. Therefore it has to be used with other data collection methods to obtain a more holistic description of the events. Limitations on recording without researcher’s presence also include the imbalance of the quantities of data recorded, as well as an increased level in self-consciousness and performativeness (Stenström, Andersen, and Hasund, 2002, cited in Macaulay, 2009). The issue of performativeness is discussed in section 4.9.1 of this chapter. The next section presents the general background of the learners who volunteered in the study.

## **4.7 General background information of the participants**

### *4.7.1 The recruited learners*

This section features the data of 11 learners who all used Memrise. The following information was obtained in two ways: from the information provided in the application form to become a research participant (see Figure 4.3), and from the first semi-structured interview after their applications were accepted. This data gives a preliminary idea of the backgrounds of the participants in terms of the following categories: 1) gender, 2) age, 3) occupation, 4) first language, 5) other languages spoken, 6) place of residence, and 7) length of using Memrise.



1) Gender

Female (4); male (7)

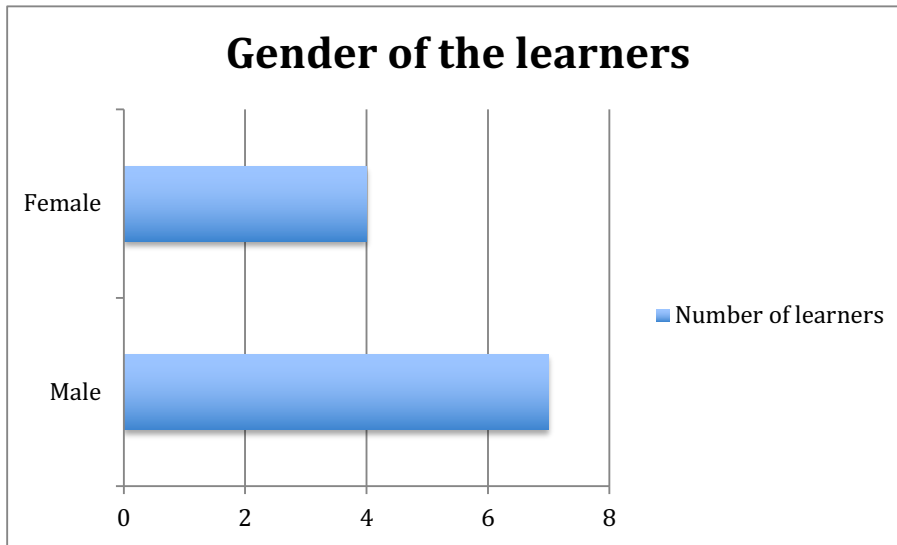


Figure 4.6: Gender

2) Age

20-30 (7); 30-40 (4)

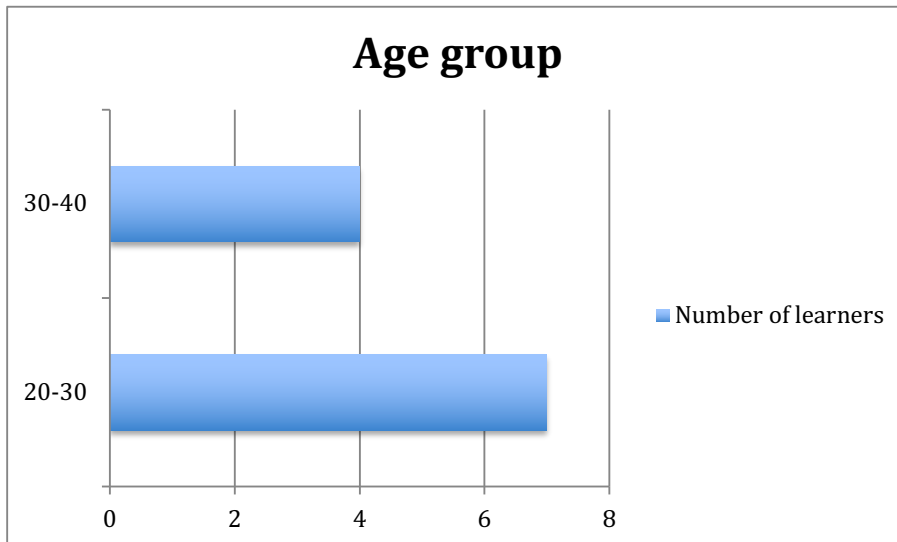


Figure 4.7: Age groups

### 3) Occupation

Student (3); Teacher (5); Researcher (1); Diplomat (1); others (1)

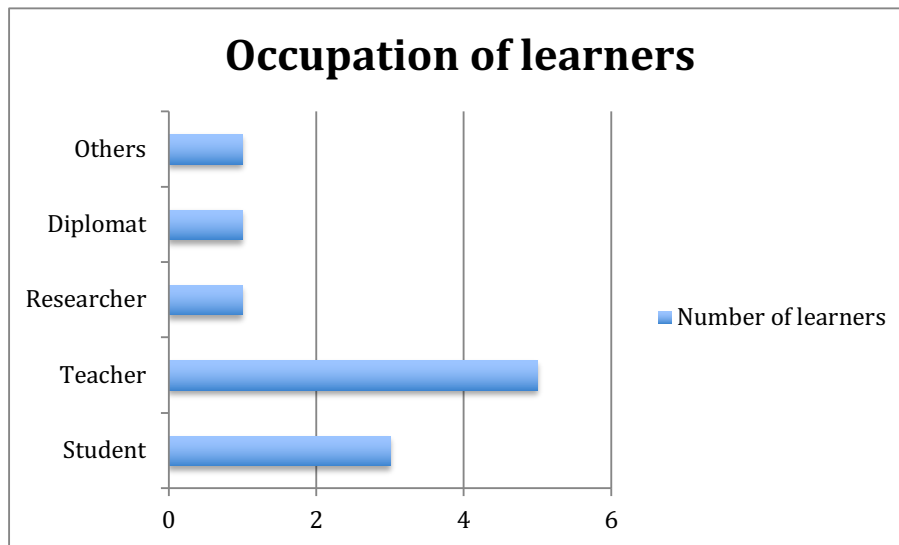


Figure 4.8: Occupation

### 4) First language(s)

English (6); German (1); French (1); Czech/Slovak (1); Polish (1)

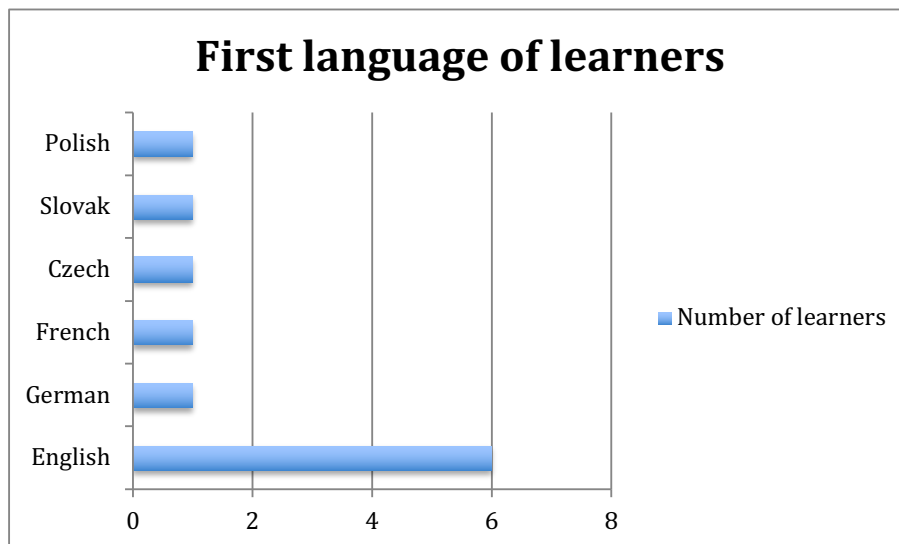


Figure 4.9: First languages

5) Other languages spoken by learners

French (6); German (4); Spanish (3); Japanese (2); Welsh (1); Dutch (1);  
Russian (2); Romanian (1); Portuguese (1); Korean (1); Ancient Greek (1);  
Turkish (1); Toki Pona (1)

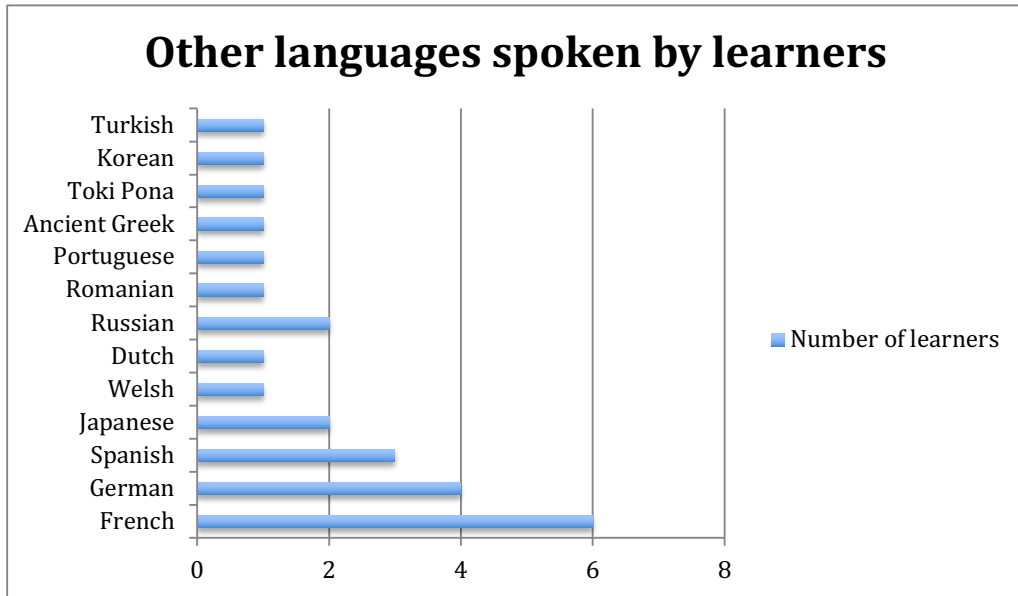


Figure 4.10: Other languages spoken

6) Place of residence at the time of research

China (4); UK (2); US (1); South Korea (1); Czech Republic (1); Poland (1);  
Germany (1)

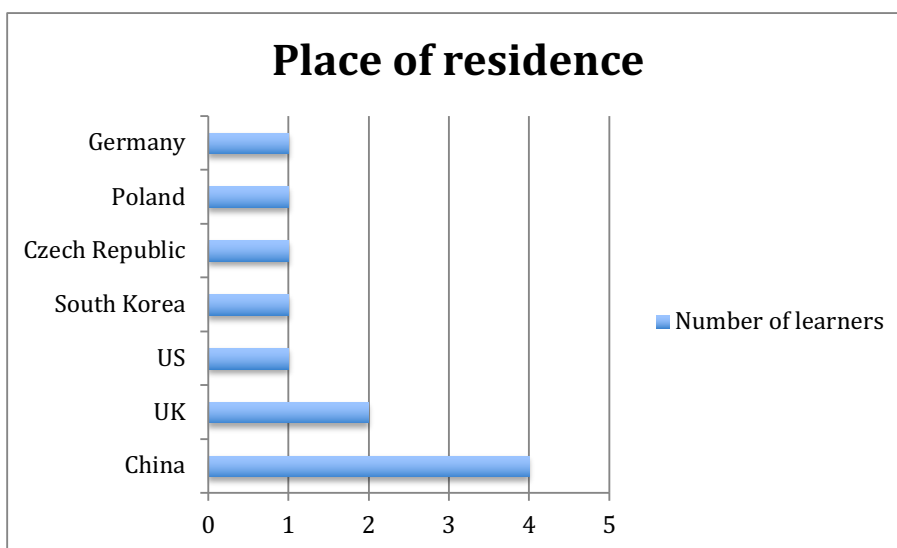


Figure 4.11: Place of residence

## 7) Length of using Memrise

Length of using Memrise: 0 months(1); 1 month(1); 3 months(1); 4 months(1); 6 months(1); 8 months(1); 12 months(1); 18 months(2); 24 months(1), 36 months(1)

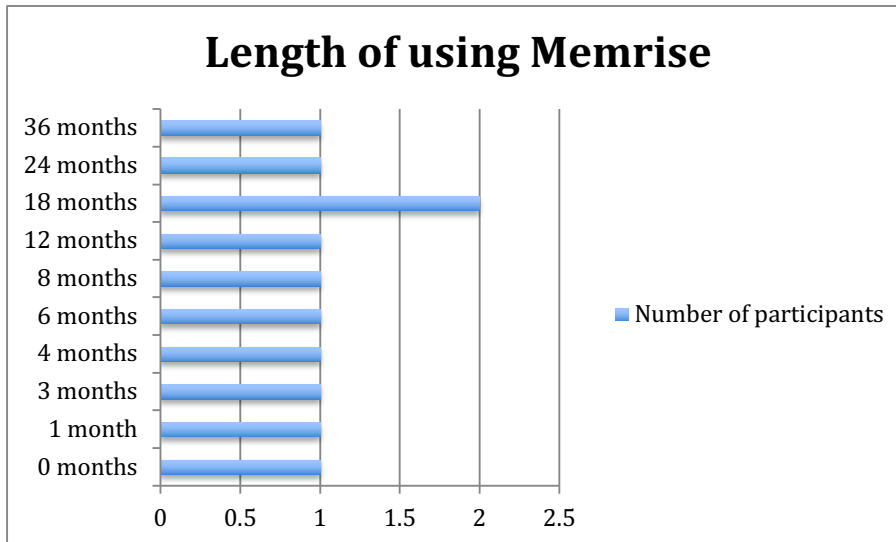


Figure 4.12: Length of using Memrise

It has to be noted that it is difficult to tell exactly how long each participant had been using Memrise. This is mainly because this type of learning is so 'informal' and 'casual' that it went on and off depending on participants' availability. According to participants' own estimation, it ranged from completely new (0 months) to three years (36 months).

### 4.7.2 The data

Table 4.4 shows a summary of data obtained from each participant. This record was done mostly for analytical reasons, for it provided a systematic account of the engagement level of each participant. In addition to this, it also revealed their routine of using Memrise.

A number of observations can be made from Table 4.4. First of all, it tells us something about the frequency of using Memrise. Although suggestions were given to learners to record at least one session each week, throughout the

period of data collection (i.e. 4 weeks), the sessions recorded ranged from 2 to 21, meaning that people were learning according to their own routine regardless of the instructions given.

As regards the time spent on the platform per session, it was an average of 19 minutes. This figure is by no means exact as participants admitted in the semi-structured interviews that while they recorded most sessions, there were some that they left out because they were doing it in contexts in which they did not want to be recorded, such as during a commute or in the workplace. Some experienced users of Memrise had a routine. Some of them used it in the morning before going to work, while some of them use it after work. Some did it multiple times a day.

Perhaps the most striking thing from this table is that while it is always assumed that Memrise is used as a *learning* platform, a significant portion of time was spent on *reviewing*. This is related to the affordance of Memrise that it shows learners the number of words that they have to revise after a certain time of learning them. If learners do not review them, the number of words that need to be reviewed accumulates day by day. According to the semi-structured interviews and learners' comments while recording, this accumulation made them feel 'guilty'. It is easy, addictive to a certain extent, to keep learning, but it is more 'demanding' when it comes to reviewing. Chapter Five discusses the affordances of Memrise in greater detail.

To sum up, the following data is obtained from learners in the data collection stage:

- 1) Screen recording (the dominant data source)
- 2) Thinking-aloud
- 3) Structured interview via Email
- 4) Semi-structured interview via Skype
- 5) Screen grabs
- 6) Artifacts

As mentioned in Section 4.6.1, the main data source was screen recording. The other data sources were supplementary to provide additional information. The next section focuses on how each of these data source is analysed in the thesis.

Table 4.4: A summary of data collected from each participant

Participants	Vicky	Ella	Liz	Neil	Raymond	Daniel	George	Henry	Valerie	Helen	Harry
Format of recording	Face + Screen	Face + Screen	Face + Screen	Face + Screen	Screen	Face + Screen	Face + Screen	Face + Screen	Face + Screen	Face + Screen	Face + Screen
Total no. of sessions submitted	4	4	5	8	4	3	9	6	21	2	5
No. of minutes on revision session	101	31	13	15	68	14	184	97	75	0	41
No. of minutes on learning session	3	101	34	115	22	41	0	0	73	32	61
No. of mems created	0	0	0	8	0	0	4	0	0	0	0
Total time of recording (hour/min/second)	01:52:56	02:08:20	00:48:05	01:51:00	01:29:50	00:52:54	03:07:05	01:38:21	02:39:27	00:33:14	01:45:46
Average time spent on each session	28	32	9	16	23	18	20	12	7	16	34
% of time spent on revision	90.9	24.2	27.7	11.5	75.6	25.5	100	100	50.7	0	40.2
% of time spent on learning	2.7	78.9	72.3	88.5	24.4	74.5	0	0	49.3	100	59.8
Familiarity with the platform*	Exp.	Exp.	Exp.	Exp.	Exp.	Exp.	Exp.	Exp.	Exp.	Novice	Exp.
No. of interviews	3	3	3	2	3	3	2	2	2	1	1

\* Exp. = Experienced, meaning that participants were already familiar with the basic functions of the platform.

## 4.8 Data Analysis

This section focuses on how the data was analysed. The data obtained from screen recording was analysed mainly by multimodal transcription and thematic analysis. The data from thinking-aloud, structured interview and semi-structured interview were mostly analysed using thematic analysis, and lastly, screen grabs and artifacts were analysed using multimodal methods.

### 4.8.1 *Transcription of screen recording data*

Transcription has been an under-researched area of research until recently. Transcription, translated from Latin as 'over' (trans) and 'write' (scriber), the emphasis is on writing. Conventional understanding of transcription sees it as a distinctive genre that turns spoken data into writing, but actually this genre has both analytical as well as rhetorical functions that can affect the way how reality is constructed (Bezemer & Mavers, 2011). Transcription is not a transparent process. It is the result of a series of choices that needs careful consideration.

Ochs' (1979) pioneering work on transcription argued that transcripts are theoretical in nature. From her work on examining young children's utterances she showed how researcher's decision of what to transcribe and how to transcribe should be informed by theories underpinning child language behaviour. In other words, transcripts should be shaped by theories and there is no 'one size fits all' way of doing transcription.

Davidson (2009) reviewed literature about transcription which were produced after Ochs's (1979) work that put transcription under the spotlight. The review looked at transcription literature between 1979 and 2009. It first examined how transcription is defined and understood by various researchers, then it mapped out the issues on transcription that are addressed by these literature, the approaches to addressing these issues, findings of various studies and their conclusions. It also looked at new developments in transcription, i.e. multimodal transcription. The review highlights that there are some shared understandings and points of difference between researchers about transcription.



Most researchers agreed that transcription is theoretical in nature (Ochs, 1979), and that it is a representational process that reflects the choices that researchers make in the process (Lapadat & Lindsay, 1999; Bucholtz, 2000; Vigouroux, 2007; Plowman & Stephen, 2008; Bezemer & Mavers, 2011). Plowman & Stephen (2008) further pointed out that “representations are constructed through a process of selecting and excluding data and privileging different modes of communication, thereby presenting different perspectives on ‘reality’” (p.542). This view is made explicit by Goodwin (1994). Through two contexts of professional activity: archaeological field excavation and legal argumentation, he examined how the use of coding, highlighting, and producing and articulating material representations create and support a particular “professional vision” that shapes an event. Flewitt et al. (2014) also argued that “all transcriptions must be recognised as reduced versions of observed reality, where some details are prioritised and others are left out” (p.50). It highlights the role of the transcriber in making these important decisions, and that these decisions have to be based on theoretical considerations (Ochs, 1979). Duranti (2006) likened transcripts as “shadows on a wall” that it is a representation, which through the use of symbolic, iconic, and indexical signs, gives us a restricted, selected perspective of reality. In other words, transcripts are there to “re-present rather than represent” (p.307).

On the other hand, there are also points of difference between researchers using transcription in different ways in their own disciplines. For instance, Lapadat (2000) problematised the role of transcription in qualitative inquiry. She examined the nature and purpose of transcription, and the epistemologies behind the choice of different approaches to transcription. She argued against the use of one standardised convention for transcription as it neglects the fact that researchers collect a diverse range of data which needs to be transcribed using different conventions in order to reflect the data and the purpose of it (Lapadat, 2000; Flewitt et al. 2009). This view is reiterated by Bucholtz (2000) in that she argued against a prescriptive transcription system as it “runs counter to the goal of recognizing the contingency of transcription” (p.1463).

Mondada (2007) mentioned about transcription as a situated practice. She saw variation as an ordinary feature of transcripts and that it is an “evolving flexible object” that changes when it is manipulated in various ways by the transcriber. Adding to the view of transcription as theory (Ochs, 1979), Mondada (2007) argued that transcription is “theory embodied within situated analytical practices” (p.810). Recordings and transcripts are reconstructions of the event in the form of an audio-/video-recorder or a textual representation of temporal, formal, and interactional features which allows us to preserve the unique moment (Mondada, 2007). She argued that “variability concerns the precision of transcripts, their level of granularity, their selectivity, and the configuration of the representation of the details considered as relevant” (p.812) and it is closely tied to the organisation of research practices (i.e. recording, perceiving, and representing practices). In other words, the finished transcript is a record of the approach taken by the transcriber (Lapadat & Lindsay, 1999; Duranti, 2006).

Vigouroux (2007) asserted that transcription is a social activity. Instead of looking at the product of the transcription process, i.e. the scription, she examined the activity that produces it, i.e. the trans process. Through analysing a videotaped collaborate transcription activity by a linguistic anthropologist and her two consultants, she illustrated how scription is constructed through experience, authorship and authority of the transcribers. She made explicit the choices faced by all the transcribers involved in the study, such as what to transcribe, when to transcribe, and whose words to transcribe, and how they reached a conclusion through negotiation.

#### *4.8.2 Multimodal transcription*

The increasing use of video as a tool of data collection has given rise to the need for a transcript that reflects not just language, but also other modes of representation, as communication is always multimodal. Other modes such as gesture, gaze, positioning of the body, have to be represented and transcribed in some way. In addition to that, the concern for the partiality of only transcribing linguistic data has created a need for researchers to look for ways to transcribe multimodally. This has created enormous challenges for researchers as existing transcription conventions are mostly based on spoken, linguistic data. Mondada

(2007) pointed out that the multimodal nature of interaction, and the capturing of it, “highlight[s] the necessarily selective character of transcripts and the configuring effects of all the choices made at various steps in analytical practice” and it “[makes] central the issues of preserving the time of action and interaction, in the form of relations both of simultaneity and successivity” (p.813).

Scholars working in different disciplines have experimented with different ways of transcribing multimodal data. For instance, Norris (2004a) used writing with arrows to indicate the intonation of speech; McDermott, Gospodinoff & Aron (1978) used line drawings to show the positioning of teacher and students during a reading activity; Mavers (2009) used visual of the screen, the teacher’s voice-over, and a written description of teacher’s gesture to show how a teacher explained how magnet works. These are just some of the examples of how researchers produced multimodal transcripts that answered their research questions. Bezemer & Mavers (2011) theorised transcription from a social semiotic perspective, starting with the assumption that transcription is “semiotic work” and pointed out that transcription involves a process of ‘transduction’ from one mode to another, from a live, dynamic and complex action to a less dynamic representation using writing, diagram or still photographs (see also Kress, 2010; Mavers, 2011; Flewitt et al., 2014). For instance, intonation in a spoken utterance is represented by other semiotic resources such as arrows in a transcript. In a similar way, Duranti (2006) considered transcription as a transformational process, and Mavers (2011) viewed it as ‘transmodal redesign’.

On the issue of the transcription of videos, Bezemer & Mavers (2011) highlighted the role of transcription as part of the analytical process. In their words, “[t]he modifications brought about by transduction are not only necessary, but it is precisely the re-making of observed activities in a transcript that can lead to fresh insights”, and “video data which are turned into multimodal transcripts...are transduced and edited representations through which analytical insights can be *gained* and certain details are *lost*” (p.196; original emphasis). They argued that transcripts should be judged on whether

they could make the “gains and losses” transparent, rather than on their representational accuracy. Nonetheless, this remaking of observed activities is not straightforward because resources may not be shared between modes, and reconfiguration is needed (Mavers, 2011).

The increasing use of digital devices by researchers and the researched has created a need for the transcription of screen-capture data such as online chats, e-mail messages, text messages, etc. Meredith (2016) is one of the pioneering scholars looking into ways of transcribing these types of screen-capture data. She analysed a corpus of screen-capture videos of Facebook chats of four participants to investigate how participants organised instant messaging interactions. She demonstrated in detail what kind of decisions she had to make, i.e. the layout and symbols used, and how to deal with the process of message construction, when overlapping, deleting and editing of writing occurred. The decisions that she made reflected her approach to data analysis (conversation analysis) and her research interest.

Perhaps the most challenging aspect of creating a multimodal transcript is the technical aspect of it. Dooly and Helm (2017) discussed some practical challenges that they faced when transcribing data in different modes, including the transcription of text and video data in online environments. Bezemer (2014) offered a step-by-step guide to multimodal transcription through a reflexive account of his journey of making a detailed multimodal transcript for a study on communication in operating theatres using video data. His paper shows how decisions made by researchers on how to transcribe data should be informed by the research questions of the study. Similarly, Domingo (2011) described in detail how she designed a multimodal transcript to illustrate how Filipino British youth in London made use of music videos to express their social identities across physical and online spaces. She explained the type of decisions that she had to make, and how the layout of the multimodal transcript was shaped by her research questions and the data that she obtained.

After data collection, I obtained more than 18 hours of Camtasia screen recording footage from all the participants. The first step of data analysis was to

watch all the screen recordings and make notes of the 'activities' that learners engaged in. I examined the patterns in the videos and selected several instances that did not conform to the pattern that I observed and examined them in greater detail. The spoken component of the selected instances was transcribed using Transana, while other modes were transcribed without using any software. In semiotic terms, it is a kind of ad hoc transcription that is also "an interest-driven selective transduction" (Adami, 2009:76). All interviews were transcribed using the Transana software. The transcripts were then analysed using NVivo where themes were identified and coded.

#### *4.8.3 Thematic Analysis*

Thematic analysis was the primary way of data analysis that was used in this study. Ayres (2008) defined it as "a data reduction and analysis strategy by which data are segmented, categorized, summarized, and reconstructed in a way that captures the important concepts within a data set" (p.867). It is used to facilitate the search of patterns that arise from the qualitative data set, in the case of this thesis, the screen-recordings and interview transcripts. According to Strauss and Corbin (1990), thematic analysis entails the coding of data according to emergent themes, trends, patterns, or conceptual categories. Coding gives structure to the data which helps to develop a comprehensive understanding of the issue (Flick, 2007). For instance, thematic analysis was used in conjunction with multimodal analysis to generate themes from the 'About Us' page to unpack the pedagogical assumptions held by Memrise (see Chapter Five).

##### *4.8.3.1 Thematic analysis of screen-recordings*

The participants have generated over 18 hours of screen-recordings throughout the 4-week research period. The first step of analysis was to identify the different sections of the video (e.g. learning, revising, meme-making, searching for information, etc.) by coding. This is to understand the structure of the learning sessions. At this point I would have identified patterns that occurred across the recordings submitted by different learners. Next I identified sections that stood out from the rest of the recording, or patterns that occurred repeatedly among different participants. After repeated viewing of these videos,

I isolated two themes that I would like to analyse in detail: 1) learning to read using multimodal memes, and 2) learning to write with different resources. These two themes are elaborated in greater detail in Chapters Seven and Eight of the thesis.

#### *4.8.3.2 Thematic analysis of interview transcripts and thinking-aloud*

As mentioned in Section 4.6.1, in this thesis, interview data acts as a supplement to the screen-recording data. After interviews were conducted, they were transcribed using Transana software, and afterwards were imported to NVivo for to identify emergent themes and coding. The categories that I identified were: 1) selection of platforms, 2) comments on Memrise, 3) the use of memes, and 4) learning to write. The interview data is used in Chapters Five, Six, Seven and Eight to supplement my analysis. The thinking-aloud data from the screen-recording were analysed in the same way as interview data.

#### *4.8.3.3 Multimodal analysis of screen grabs and artifacts*

Screen grabs and artifacts collected from participants were analysed using multimodal methods as outlined in Kress and van Leeuwen (2006). In the analysis of the learning pages of Memrise, modes were separated analytically to offer insight on the functions that each mode contributed pedagogically (see Chapter 5). Artifacts were also obtained from participants, mostly in the form of handwritten notes. These notes were analysed multimodally to illustrate how learning is the outcome of learners' engagement with the world, and to make explicit the signs of learning (see Chapter Eight).

The following table summarises the kind of data analysis methods for each data source.

Table 4.5: Data sources and their corresponding data analysis method

Data source	Data analysis method(s) used
Screen recording	Multimodal transcription; thematic analysis
Thinking-aloud	Thematic analysis
Structured interview via Email	Thematic analysis
Semi-structured interview via Skype	Thematic analysis
Screen grabs	Multimodal analysis
Artifacts	Multimodal analysis

#### 4.9 Reflections on the research process

Research should be a reflexive process. As Hammersley and Atkinson (2007) mentioned, “the concept of reflexivity acknowledges that the orientations of researchers will be shaped by their socio-historical locations, including the values and interests that these locations confer upon them” (p.15). Reflexivity is “the dominant epistemological position from which ethnographic work should be undertaken” (Dicks, Mason, Coffey, and Atkinson, 2005:32). They then point out that the observer is always present in the description of the social world and there is neither a “completely vantage point” nor a “neutral language of description” to describe the social world. As shown clearly, I as a researcher brought with me my worldview and experience into the research context which could have an effect on my orientations.

##### 4.9.1 Reflexivity as a researcher and the observer's paradox

Hine (2000) argued that no matter how sincerely ethnographers wanted to reflect the reality, they can only present a selective account of the reality which has been observed, which is determined by the perspective taken by each individual ethnographer. Furthermore, the use of IPA as a methodological tool allows for multiple interpretations from the researcher. Therefore, it has to be acknowledged that my role as a researcher shaped the data in different ways. For instance, my experience of learning Mandarin shaped the way I look at the participants' learning process. I was able to analyse the data more effectively as I could point out things that were taken for granted by ‘native-speakers’.

Although there is a group of active learners using these platforms who frequently interact with each other through the use of discussion forum, a vast

majority of the learners are actually using it without any interaction with other learners. The kind of observation that I did in this thesis aims to reflect this reality, to make the observation more authentic (Hine, 2000). Moreover, my decision to keep a distance between me and the recruited learners reflected my view of the researcher/researched relationship that I wanted to position myself as an objective researcher in this part of the project.

The kind of observation that I chose to conduct, that is, to be more of an 'observer' rather than a 'participant' reflected my orientation to the recruited learners. Whiteman (2012) pointed out that unobtrusive observation prevents the researcher from "muddying the waters". Similarly, Scott and Usher (1999) suggested that there are three advantages for observers to take a more detached role: 1) observers can gain a more comprehensive understanding of the event without being influenced by the participants in any way; 2) observers can minimise the impact of their own background and experience between them and the observed; and 3) it provides the observers with a more objective view of the reality. Nevertheless, as mentioned before, the use of IPA inevitably allowed for multiple interpretations of the reality, no matter how much I would like to minimise the impact of this.

It can therefore be concluded that unobtrusive observation is an ideal, but it is not always achievable. In practical terms, the 'observer's paradox' is an inescapable outcome of any research which involves observation and recording. This term was first used by Labov (1972) who had a sociolinguistic interest to find out the way how people talk. However, the paradox, in the words of Labov, is outlined as follows:

the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain these data by systematic observation" (p.209)

As Meyerhoff et al. (2011) explained, participants are more aware of what they do and what they say once they are being observed and recorded, and therefore it is almost impossible to obtain 'natural' data in an ethical way. In this study, it has to be acknowledged that both the self-recording of learning



sessions as well as the semi-structured interviews were influenced by the observer's paradox, and thus they are not naturally-occurring data.

In an interview situation, observer's paradox is created by several factors: 1) the presence of the researcher, 2) the presence of the recording device, and 3) the unfamiliarity of the situation. Most participants were unfamiliar with being interviewed and possibly they knew little about research. Being put in such kind of situation, albeit a non-threatening one, would cause them to be more careful in their speech and behaviour. In order to minimise observer's paradox, I started each interview with small talks, addressed them on a first-name basis, found ways to establish common ground with them, and eliminated research jargon so that they saw me as an equal. In addition to those, Labov (1972) also suggested increasing the number of interviewees so that there would be more interactions between the interviewees, instead of one-to-one conversation between the researcher and the interviewee. This way of overcoming observer's paradox is also mentioned in Meyerhoff et al. (2011) and Schilling (2013). Despite the various advantages of conducting group interviews to minimise observer's paradox, it was not operationalised in this study because of practical constraints. First of all, as opposed to a lot of fieldwork studies, the participants in this study did not know one another in real life, and therefore it would not be ideal to conduct a focus group interview. Furthermore, as participants came from different time zones, it would have been challenging to conduct a synchronous Skype interview at the same time.

In this study, the screen-recording with thinking-aloud is inevitably most susceptible to the influence of observer's paradox. However, I would like to make it clear that while I tried to minimise the effect of observer's paradox in the process, I did not intend to collect 'naturalistic data' due to the reason Meyerhoff et al. (2013) explained, which I outlined earlier in this section. This is actually a 'performance of learning' which was done for the sake of the research, but it should not be confused with other studies which placed participants under an experimental condition. Comparatively speaking, this 'performance of learning' allowed participants to have more space to express their 'usual' learning trajectory as best as they could. For example, before participants started

recording their learning sessions, I only gave them minimal information of what I was looking for. It was after their learning sessions were recorded that I asked follow-up questions related to my research questions. However, it must be admitted that they changed some of their behaviours for the sake of the research, and they were being acknowledged. For instance, some learners admitted that they normally used mobile apps for learning, but they had to switch to the desktop site so that they could record their learning with the software. Also, the recording also affected the time and place where learners engaged in learning. Some learners reported that they had to make an effort to find a quiet place and time so that they could record themselves without people around. With reference to what Schilling (2013) concluded about recording speech without the interviewer's presence in sociolinguistic interviews as "trade-offs inherent in relinquishing the controls built into the one-on-one sociolinguistic interview in favor of less controlled speech" (p.112), it can also be said that the use of screen-recording as an observation tool was a trade-off between controlled behaviour in favour of less-controlled behaviour. All in all, this study presented an innovative way of simultaneously observing some aspects of learning practices through the eyes of the researcher in an objective way, and eliciting from participants their own subjective understandings of these practices.

While the use of thinking-aloud protocols may be seen as too subjective and have the potential to 'distort' the data, it has to be made clear that unlike natural sciences, the aim of studies informed by ethnographic methods is not to achieve objectivity. Using Duranti's (1997) words, "the problems with the term "objectivity" arise from its identification with a form of positivistic writing that was meant to exclude the observer's subjective stance" (p.85), which as he described, is "a questionable goal". Therefore, after serious considerations, I decided to keep the think-aloud method, as it has the potential to yield valuable, real-time inner speech of learners that would not be accessible after the task was finished. In this study, I take the view that true objectivity is not only unobtainable, but also not necessarily desirable, and therefore I have preferred to follow researchers in the ethnography and anthropology tradition to

acknowledge that context, as well as the researchers, shape the data. As noted by Duranti,

In the social sciences, dealing with the paradox means to understand the different ways in which the presence of certain types of social actors (e.g. ethnographers) or artifacts (e.g. cameras, tape recorders, notebooks, questionnaires) play a role in the activity that is being studied, and the different kinds of transformations that each medium and technique produces (1997: 118).

Duranti held the view that the effect of the researcher or artifacts are often times overestimated, a view which I agree with. From the example of this study, it could be seen that while the screen-recording software changed the routine and behaviour of the participants, once they were engaged in the lessons, the effect diminished. As I repeatedly mentioned in this chapter, obtaining objective, natural data is not the intention of this study. The intention is to understand learners' use of resources while acknowledging the context in which the recording was undertaken as well as the effect of the technology. As sociolinguists, a balance of objectivity and subjectivity has to be maintained (Duranti, 1997; Schilling, 2013). Schilling (2013) also reminded us that rather than attempting to eliminate observer's paradox, it is something to be embraced.

#### *4.9.2 Challenges and solutions*

One of the difficulties was to look for research participants for my study. I spent almost a year recruiting research participants but the result was unsatisfactory. Then I decided to approach the companies featured in my study to provide support. A call for participants notice was posted to the blog of one of the platforms, Memrise. 85 people responded to it. This huge number of prospective participants brought another problem, as it was difficult to manage such a big group of people at once. My solution was to prioritise them based on the information they provided at the initial stage. The first group included participants who were living in China and/or multilingual, while the second group included the rest. The effect of the prioritisation was minimal as it was just a practical solution to manage this large number of people. It did not affect the data in any way.

Another problem had to do with the observation of the platforms. The ephemerality of online data meant that the platform updated its interface every now and then, and it made data collection and analysis difficult as the data was ever changing (see Fletcher (2007) for a discussion of the nature of the Web). My solution was to complete my analysis based on the screen captures obtained in March 2016. Any changes made beyond this date were not taken into consideration. Although it would not be an 'up-to-date' analysis, it is a limitation that I have to acknowledge, as all data, especially those obtained from the Internet, reflects what is there on the Internet at a particular moment in time.

Moreover, I have also spent a long time searching for a free screen-recording software that was able to record both on computers and mobile phones. However, at the time of data collection, I could only find screen-recording software that worked on computers. This is a limitation of the study as a lot of learning was done on mobile phones. A possible solution was to ask learners to use a separate camera to record their phone screens. However, the result was not satisfactory.

The third challenge was time. Due to the time differences between me and the recruited learners, careful scheduling was required so that the Skype interview time did not interfere with the recruited learners' normal routine. However, it posed a lot of challenges for me because sometimes I had to conduct the interviews during early hours of the morning. Another issue related to time was the duration of the study. Taking into account the busy lives of the recruited learners, and the limitation of the free screen-recording software used, I had to limit the observation period to just four weeks. From an ethnographic perspective, it was not ideal because four weeks was too short to observe any patterns. However, it was a compromise that I had to make.

#### **4.10 Ethical issues**

Doing research in an online setting raises a different set of ethical issues faced by researchers doing research in the 'real' world. Ethics for conducting research

in online settings is an emerging concept which results in a lot of uncertainties in terms of what is ethical and what is not. It is particularly problematic when we attempt to use the ethical standards in the offline world and apply them in online settings. In the words of Whiteman (2012), “the emergence of the Internet and new media technologies has involved a destabilisation of established understandings of what it means to be ethical for both researchers and Internet users” (p.20).

Ethical approval for the study was obtained in April 2014, before any data collection involving recruited learners began. As the site of this research was on virtual environments, the ethical issues that I faced were emergent and had no clear cut answers as to how best to solve them. Nonetheless, in such a time when online research etiquette is still developing, the best way is to learn from other researchers on how they dealt with similar issues.

#### *4.10.1 Informed consent*

According to BERA ethical guidelines, voluntary informed consent is taken to be “the condition in which participants understand and agree to their participation without any duress, prior to the research getting underway” (BERA, 2011:5). Information sheet and consent forms were given to all participants before the research started. They indicated their informed consent by signing the form electronically. An oral and written explanation of the research was also given to participants before the start of data collection and they were given a chance to clarify any points about the research before they sign the consent forms. Participants could withdraw from the study anytime they wished before the data collection was completed.

For other platform users whom the recruited learners might interact with, if data related to them were used, their consent would be sought retrospectively. As the participants did not interact with other learners in the platform, no retrospective consent was sought. For the users who created the contents of a particular lesson, no informed consent was needed as the contents were deliberately designed to be used by others. There had been concerns about unobtrusive observation, or observing from a distance, especially in online

space is likely to raise ethical concerns of the researcher “lurking invisibly”. However, as Whiteman (2012) suggested, lurking is a normal state of being in these online spaces and it is different from spying in the offline world.

#### *4.10.2 Data protection*

All screen recordings were uploaded to the ‘UCL Dropbox’ which was password protected and could only be accessed by me. Interview recordings and transcripts were saved in a password-protected computer used only by me.

Table 4.6 lists the data sources of the research, people involved in each data source, ethical issues and their solutions:

Table 4.6: A table showing the data sources of the research, people involved in each data source, ethical issues and their solutions

	<b>Data</b>	<b>'Authors' of materials observed/collected</b>	<b>Ethical issues</b>	<b>How to address it</b>
<b>Direct observation</b>	- Field notes - Screen grabs	- Platform designers/owners - Other registered users	- Not being able to contact all users to seek consent	- Seek consent from platform owners - No quoting unless consent given
<b>Screen-mediated observation</b>	- Camtasia screen recordings	- Recruited learners - Other registered users - People who appeared in the background	- Risk of capturing screen activity unrelated to the research, such as incoming emails ('multi-tasking') - Risk of capturing images of people who are present in the same room as the recruited learners	- Reminder in the information sheet to close down applications that recruited learners considered as private. - Anything recorded that is not related to the research will be ignored by the researcher
<b>Interviews</b>	- Skype (video) recordings - Email	- Platform designers/owners - Recruited learners	- Confidentiality of interviewees' identity and comments - Risk of capturing images of people who are present in the same room as the recruited learners	- Keep recordings and transcripts private - Anything recorded that is not related to the research will be ignored by the researcher - Use pseudonyms to ensure anonymity of learners
<b>Think aloud</b>	- Video recordings	- Recruited learners	See above	See above
<b>Learning diary (optional)</b>	- Written texts	- Recruited learners	See above	Keep learning diary private

#### **4.11 Summary**

This chapter has presented the methodological framework of the study, which consisted of ethnographic methods and multimodal methods. It has given details of the process of data collection, on the selection of the focal online language learning platforms, and the recruitment and selection of learners in the study. This chapter has also summarised the background information of the 11 learners and explained how this vast amount of data was analysed. The chapter has concluded by addressing issues of reflexivity, as well as the ethical concerns faced by the researcher. The next chapter presents an overview of the platform.



## **Chapter Five: An analysis of the overall presentation of the platform**

### **5.1 Chapter synopsis**

This chapter gives an overview of Memrise, the OLLP featured in the thesis. The first part of this chapter gives an introduction to Memrise and presents what kind of resources it offers to language learners. The second part of this chapter focuses on the design of the platform by describing and analysing the 'About Us' page, where four pedagogic assumptions are identified and explained in relation to the design and use of modes. The third part of the chapter examines the modes used in the learning pages and attempts to find out the pedagogic work performed by each mode.

### **5.2 An Introduction to Memrise**

Memrise is one of the many online platforms available on the Internet that offers free language courses. An entry in Wikipedia describes Memrise as

[A]n online learning tool with courses created by its community. Its courses are mainly used to teach languages, but are also used for other academic and nonacademic subjects... Memrise uses flashcards augmented with mnemonics—partly gathered through crowdsourcing—and the spacing effect to boost the speed and ease of learning (Wikipedia, 2016)

Memrise was founded in 2005. Thanks to its crowdsourcing nature, Memrise is able to offer courses ranging from Astronomy to History, and Languages are a big part of what it offers. It features more than 200 different languages, from languages that are widely spoken in the world (e.g. English, Spanish, Chinese), to lesser-known languages (e.g. Inuktitut, Creek), to constructed languages (e.g. Esperanto, Toki Pona), to even sign languages (e.g. British sign language, American sign language). It has over a million users from all over the world, and its intended audience is people who want to learn a new language from building up functional vocabulary that they can use immediately. Memrise adopts a freemium model. Users can access basic functions for free, but will have to pay if they want to unlock more functions, such as access to video lessons with native speakers and in-depth learning analytics. In terms of the teaching methodology, Memrise prides itself on being scientific by collaborating with

researchers specialising in Education and Psychology. As for the ways of interaction between users, Memrise offers the possibility for users to create pedagogic materials, be it an entire lesson based on a particular topic, or a *mem* (a short multimodal text which uses the principle of mnemonics), to be uploaded to the platform for others to use. Also, similar to social networking sites, Memrise users can ‘follow’ each other as *Mempals*, ‘like’ each other’s *mems*, and discuss particular issues in discussion forums created and monitored by Memrise. In other words, it demonstrates a crossover of social media practices to a language learning context. Signing up on Memrise allows users to perform dual roles: to be a learner and/or a teacher at the same time. Nonetheless, the affordances of dual identity are not exclusive to Memrise. It is a common feature across other platforms that I observed at the beginning of the study (see Chapter Four for details on the selection of platforms).

### 5.3 Language learning as social interaction

Before analysing the site, it is important to understand that although this thesis deals with self-directed learning of individual learners, it by no means refutes the Vygotskian notion of language learning as social interaction in the sociocultural theory of learning. In broader terms, interaction not only occur between humans and humans, it can also happen between human and machine, as well as with signs. As Lantolf (2000) put it,

Sociocultural theory holds that specifically human forms of mental activity arise in the interactions we enter into with other members of our culture and with the *specific experiences we have with the artifacts* produced by our ancestors and by our contemporaries (p.79; emphasis added)

When learners use Memrise, they are constantly interacting with the site, with the new signs that are produced by the site depending on which tab they clicked on (see Chapter Six for a visual explanation of how different prompts produced different responses to the site). The concept of interactivity is “underdefined” (McMillan, 2002). While in a lot of literature, interactivity is often being assumed as happening between two or more people, Stromer-Galley (2004) distinguished between two types of interactivity: “interactivity-as-process” and “interactivity-as-product”, the former concerns with human-to-human

interactions, while the latter deals with interactions between human and computers. “Interactivity-as-product” is the focus of this chapter. Using it within a social semiotic frame, I see “interactivity-as-product” as the relation between learners and the text, on “what users can do (on)to a text” (Adami, 2014b:134). In other words, “the interactivity of a website is intended to define what the website enables users to do there” (p.135). Based on this understanding, in the next section I set out to explore what Memrise enables users to do by providing a ‘virtual walk-through’ of the site from the perspective of a learner.

#### **5.4 A virtual walk-through of Memrise**

After signing up, I was asked to ‘find something to learn’. I was faced with a plethora of choices between language courses, or other courses such as Arts and Humanities, Maths and Science, etc. Because my interest was in language learning, I selected language courses. Then I was directed to the ‘Language’ page where I was shown a list of language courses created by the Memrise community (see Figure 5.1).

The page shown in Figure 5.1 displays the different courses that I could take. They were arranged in rows of three, each with an image representing a particular language. A social semiotic analysis can be used to analyse the elements of this page. For instance, French, the signified, is represented by an image of the Eiffel Tower, a famous landmark in France which is often used as a signifier of France as a country, the French people, the French language, and the French culture. French is also signified by the French flag, also by writing (‘French 1’ written at the bottom). Some practical information about the course is shown, such as the creator of the course, the title of the course, number of learners on the course, the estimated time of completion, and whether it is free or not (most courses are free to enrol). This is an example of a Western arrangement of information, where the ‘ideal’ is shown at the top, and the ‘real’ shown at the bottom (Kress and van Leeuwen, 2006). The image of the Eiffel Tower is edited by photo-editing tools so that it appears with a red filter. This effect resembles the kind of photos shared on social media platforms such as Instagram, where it is common for users to post a photo and add effects to it in order to make it more artistic. This type of photo is particularly popular with

travel photography. This could be used to attract people to learn a new language to fulfil their desire to travel.

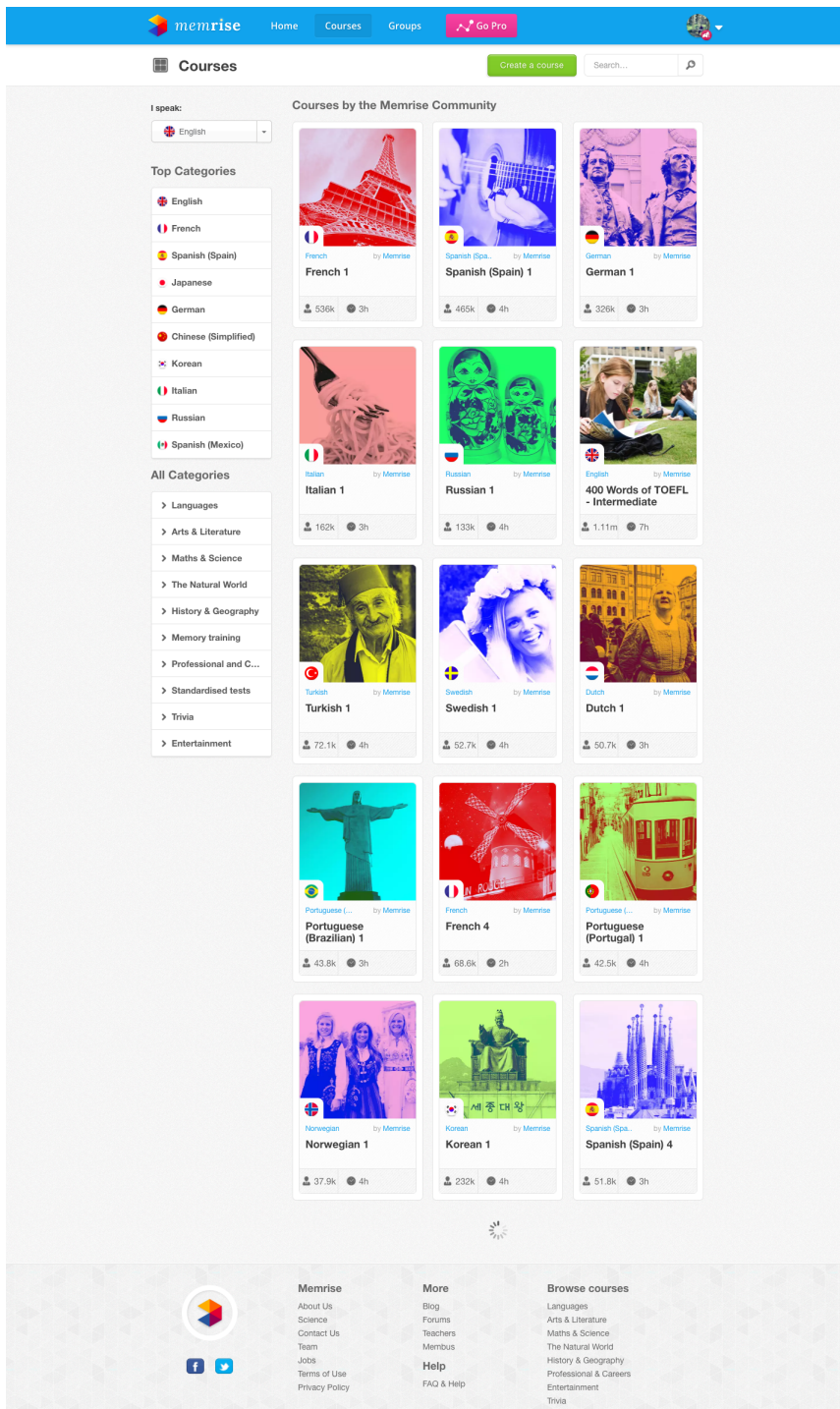


Figure 5.1: A list of language courses offered by Memrise

The way the courses are displayed resembles a YouTube interface, both using a modular arrangement instead of a linear one. More than 200 languages were available, and as a learner, I had to make a selection of which language I wanted to learn. I chose 'Chinese'. Then I was directed to a new page with a list of Chinese courses, again arranged in rows of three, each with an accompanying image, a Chinese flag, name of the language (Chinese), creator of the course, title, number of learners, estimated time of completion, and whether they are free or not (see Figure 5.2). At that point, I had to decide which Chinese course I wanted to take. This page showed different kinds of Chinese courses, and it could be seen that different signifiers are used to represent Chineseness here: Chinese dragon, faces of Chinese people, the Chinese national flag, Chinese characters, even the colour red and yellow, the colours of the Chinese national flag, are used as signifiers to represent Chineseness. As mentioned in Chapter Two, the Chinese language has a lot of dialects. Here I had to choose which dialect of Chinese I wanted to learn. The selection included: Mandarin Chinese (Simplified), Mandarin Chinese (Traditional), Mandarin Spoken Only, Cantonese, Cantonese Jyutping, Ningbo Dialect, Taishanese and Hakka. I chose Mandarin Chinese (Simplified).

Having established an initial idea of the appearance and the basic functions provided by the platform, the following sections discuss some of the pedagogic assumptions of Memrise.

memrise Home Courses Groups Go Pro

All Courses Create a course Search...

### Mandarin Chinese (Simplified) Courses

I speak: English

Top Categories: English, Japanese, French, Spanish, Mandarin Chinese (...), German, Korean, Italian, Russian, Spanish (Mexico)

All Categories: Mandarin Chinese (...), Mandarin Chinese (...), Mandarin Spoken ..., Cantonese, Cantonese Jyutping, Ningbo Dialect, Taishanese, Hakka

#### Mandarin Chinese 1

Part 1 of the complete and inspirational mission to Memrise Mandarin Chinese. Learn to speak Chinese and learn to read Chinese characters. Learn to read 100+ characters. Introduce yourself in Mandarin Chinese, get around China, and learn a bunch of useful colloquial Chinese expressions ... [More >](#)

94.4k learners 3h avg duration

#### Courses by the Memrise Community

##### Mandarin Chinese 2

9.56k 8h

##### Mandarin Chinese 3

2.72k 8h

##### HSK level 1 - Introductory

365k 13h

##### Introductory Chinese: read a

229k 1h

##### Mandarin Reading Survival

76.5k 8h

##### First 500 characters in Mandarin Chinese

65.1k 17h

##### HSK level 2

23.2k 21h

##### Learn Basic Mandarin Chinese

22.5k 7h

##### HSK level 3

21.9k 39h

##### HSK level 5

15.2k 44h

##### 100 most common Chinese verbs

14.4k 3h

##### HSK level 4

12.2k 34h

##### Characters 501 - 1000 in Mandarin

9.43k 17h

##### #1 (videos) Watch to Learn 300 Phrases

7.19k 3h

##### 100 Chinese Sentences for day to

7.04k 3h

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Figure 5.2: A list of Chinese courses

## 5.5 Pedagogic assumptions of Memrise: The Framework

From a social semiotic perspective, pedagogy is widely seen as the social relations that exist in the classroom. It is concerned with how relations between school, teachers and students are constructed using different resources, such as the spatial arrangement of the classroom, the design of the curriculum and so on. Just like a physical school, Memrise has its own pedagogic assumptions of how languages should be taught and learnt. Here Memrise has a similar role as a teacher in a conventional learning setting, which takes on the role as designers of the learning environment, with a set of pedagogic assumptions that are realised in the 'About Us' page as well as in the overall design of the platform.

Having now established that learners' interactions with the Memrise site is a form of interaction (see Section 5.3), I would like to explain why the concept of interaction is a useful one here. In the words of Adami (2014b), the notion of interactivity is useful to "highlight the ways in which participants co-/de-/un-construct or negotiate meaning, (mis-)understand each other, cooperate, argue, (dis-)agree" (p.135). In addition to this, Adami further suggested that

[the notion of interactivity] can say something about its designers' interests in positioning themselves and their text in respect to prospective users and third parties...[which] can also offer insights into the ways in which the engagers with a text respond to it, according to their interest in making meaning of and acting upon it (p.135)

This understanding of interactivity is in line with a social semiotic framework which focuses on signs and sign-making, on how designers select apt resources to make meaning, and on how readers interpret the text. These ideas are highly relevant to the present context because the design of Memrise reflects how it positions itself in relation to the learners, and how learners engage with it can be seen a realisation of their interest in making meaning. This is elaborated in Section 5.7 and 5.8 of this Chapter.

In addition to the above, I would also like to briefly mention discourse here. Jones (2012) stated that there are three ways of looking at discourse: 1) a *formal* approach which concerns with the rules and conventions that govern

how clauses and sentences are joined together, 2) a *functional* approach which focuses on 'language in use', how language is used to do things, and 3) a *social* approach which sees discourse as a social practice. It has to be acknowledged that it is difficult to separate these three approaches to discourse in any kind of meaningful analysis of texts. However, I have preferred the second approach in this thesis – discourse as 'language in use'. Nonetheless, this is still a linguistic definition of discourse. Taking a social semiotic view, discourse can be seen as the making and remaking of meaning by the use of multiple modes which are shaped and constructed by a society. This is the view of discourse which I preferred.

From a critical perspective, ideologies are realised in discourse. It can then be said that the text in the 'About Us' page of Memrise is loaded with ideological assumptions about how languages should be taught and learnt, aiming to encourage and convince potential users to disregard their previous (negative) experiences of language learning and to accept a new belief based on what Memrise constructed in the 'About Us' page. There is clearly a power relation that exists between the Memrise team and the potential users of the site. I recognise that Critical Discourse Analysis would also be a suitable way for analysis. However, in this section I decide to focus on identifying the pedagogical assumptions of Memrise, and how they are realised in design, but not on the issues of discourse and power. Therefore, I chose to analyse this page with multimodal methods.

In the next section I set out to perform a textual analysis of the Memrise site. The analysis is divided into three parts. The first part presents the criteria for analysis for the 'About Us' page, the second part presents an analysis the 'About Us' page by multimodal analysis, and the third part describes and analyses a sample of a learning page, again by multimodal analysis, but with a stronger focus on individual modes.

## **5.6 Part One: The criteria for analysis**

Adapting the framework used in O'Regan (2006) for facilitating classroom discussion of texts, and the framework proposed by Kress and van Leeuwen



(2006) for analysing visual images, I designed the following guiding questions to analyse the Memrise 'About Us' page. Although O'Regan's work has a strong focus on Critical Discourse Analysis of texts, I find the linguistic aspects of the framework particularly helpful for my analysis, as one of the purposes of the 'About Us' page is to convince viewers to take up certain beliefs and ideologies that Memrise would like them to accept through the use of language and other semiotic resources. On the other hand, the adaptation of Kress and van Leeuwen's framework is helpful to unpack how this purpose is achieved through semiotic means. The frameworks being used here are adapted to suit the present context.

### The Framework:

#### 1. The overall presentation

- a. How is the text arranged on the screen (e.g. linear or modular)?
- b. Are the modes equally represented? If not, what is the dominant mode of representation?
- c. What kind of colour scheme is used?
- d. What words are underlined/bold/italicised?
- e. What kind of font is used?
- f. What is given salience?

#### 2. Language


- a. What kind of register is used?
- b. What kind of vocabulary is used?
- c. Does the text use any personal pronouns?
- d. When does the text use active or passive constructions?
- e. What kind of genre is the text associated with?
- f. What kind of feeling does the text evoke?

#### 3. Image

- a. What kind of images are used?
- b. Where are the images positioned in relation to the written text?

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### Science


**Our recipe for effortless learning has 3 simple ingredients:**

The first is science. We're obsessed with using brain science to help you learn faster. This isn't a marketing ploy - we're really experts in this stuff. And from day one we've built Memrise to embody the very best knowledge about how your brain works, and so help you learn as quickly and effortlessly as possible.

We use mems to help you form vivid, sensory memories. We test you continuously, always making sure to give your brain just the right workout. We remind you of what you've learned at scientifically optimized times so your memories are always growing stronger, and never forgotten.

Want to learn more about the kooky scientific principles that make Memrise tick?

[Learn more about the science](#)



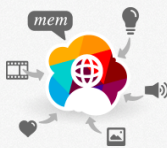
### Fun

**The second is fun.** We want to make learning your favourite playtime activity. That's how it should be: we learn best when we're relaxed, curious and confident, and, after all, the world is a very interesting place.

So we've turned learning facts and language into a game where you grow a colourful garden of memory. When you learn a new word, think of it as planting a new seed in your memory. Then every time you review that memory you help it to grow a little bit - like watering a little flower. By reviewing at the right time you help it grow as fast as possible. Soon you'll have a glorious garden full of flower-memories - it's like a guiltless video-game!

Want to learn more about how the Memrise garden will help you love learning?

[Learn more about the garden](#)



### Community

The third is community. We believe learning should be as rich and varied as the world you're learning about. So with our community we're building a kind of multimedia wonderland of learning, where videos, audio, usage, mnemonics, etymologies and much more bring your learning to life.

We believe that every learner is partly a teacher, and we hope that once you get started, you'll soon be supplying little nuggets of wit and wisdom to help the rest of the community as they learn!

Want to learn more about the beliefs that energize our community?

[Learn more about our beliefs](#)

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- Trivia
- Learning Spanish

Figure 5.3: The 'About Us' page

## 5.7 Part Two: A multimodal analysis

This part presents a multimodal analysis of the 'About Us' page of Memrise (see Figure 5.3; see also the Appendix 1 for an expanded version of Figure 5.3) with the use of the above guiding questions. The following aspects of the page are described: 1) The overall presentation of the page, 2) Language, and 3) Image.

### 1) The overall presentation of the page

The written text is arranged on the screen in a linear way. There is a clear entry point for readers to read the page from top to bottom, from left to right. The page is divided into three parts by the use of space and a grey, faint line, as well as the use of different colour schemes, with the first part 'Science' appeared in blue at the top, the second part 'Fun' appeared in green in the middle, and 'Community' appeared in orange at the bottom of the page, just above the sitemap located at the lowest part of the screen. The dominant mode of representation is writing, followed by image. The colour scheme of the page is purple and grey. The headings 'Science', 'Fun' and 'Community' are in bold. All the sub-headings are also in bold. Arial font is used, which is a commonly used font. Salience is given to the drop-down tab which expands and shows more texts upon clicking (see Appendix 1). These tabs are blue ('Science'), green ('Fun'), and orange ('Community') and they are in contrast to the written texts in black. Salience is also given to the three images (Figures 5.4, 5.5, 5.6) located to the left of the headings.

### 2) Language

The language used in the 'About Us' page is a mixture of formal and informal language. On the one hand, there are some scientific jargon, and on the other hand, some words are normally used in spoken, casual contexts. Personal pronouns such as 'we' and 'you' are used frequently. Most of the text is written using active voice. However, at some point passive voice is used to communicate expertise. It is a mixture of the genre of scientific writing and advertisement, and at times it evokes the feeling of understanding, relaxed, fun and achievable. The above strategic uses of language reflect some pedagogic assumptions of Memrise, and they are explained in Section 5.7.1.

### 3) Image

Cartoon images are used to evoke the nostalgic feeling of school life. It also gives a feeling of happiness and fun by the use of rainbow colours. The use of these kinds of images aims to reinforce the feeling that learning through Memrise is effortless and relaxed, which is explained in Section 5.7.1.



Figure 5.4: Image in the 'About Us' page (1)



Figure 5.5: Image in the 'About Us' page (2)



Figure 5.6: Image in the 'About Us' page (3)

### 5.7.1 *Pedagogic assumptions of Memrise*

After a close examination of the page, four themes emerged which seem to have important effects on the design of the platform: 1) positioning as experts in the field, 2) 'gamification' of language learning, 3) creation of an online community, and 4) ownership of learning. They are the pedagogic assumptions that Memrise holds and they are manifested in the design of the platform.

#### 1) Positioning as experts in the field

The use of the word 'position' draws on positioning theory. In Hollway's words,

Discourses make available positions for subjects to take up. These positions are in relation to other people. Like the subject and object of a sentence. (Hollway, 1984:236)

According to Harré and van Langenhove (1991), the word 'positions' can be used in place of 'roles' to understand discourse, as 'roles' is widely seen as more rigid, and 'positions' are more dynamic and are constantly negotiated. Indeed, the positions that Memrise takes are constantly changing. By alternating between the use of formal and informal language, it attempts to position itself as an expert, and as an emphatic friend.

To begin with, Memrise prides itself in using cutting-edge brain science to help people learn. This scientific expertise is realised in several ways. First, in terms of pedagogy, Memrise believes that the continuous testing and repetition at regular intervals can help memory retention. That is why it adopts approaches which focus on repetition and drilling in all its courses. In addition to this, Memrise reminds users at scheduled times that they have to revise what they have learnt through email. This repeated drilling inevitably helps learners create a sense of satisfaction and confidence, both of which are important motivations for them to continue learning.

Also, Memrise puts a lot of emphasis on multimodal input, which is why in most of the learning pages users can not only look at the form and the translation of the target word, but can also listen to it. This is similar to the audiolingual method widely used in language teaching. 'Mems' play a big role in providing multimodal input. One of the ways is through allowing users to create their own

mems for their own use or for other people to use. Mentioned in the 'About Us' page of Memrise:

Memrise has been designed to help you connect every new word in the densest, most vivid fashion possible. We do this with mems. Mem is our natty word for the morsels of interesting and relevant information you see beneath every word on Memrise. Mem can be mnemonics, etymologies, amusing videos, photos, example sentences: anything which helps connect what you're learning and bring it to life. Memrise is a wonderful community of mem-makers: we believe that there's no idea or fact that isn't made easier to learn with a choice mem. (Memrise 'About Us' page, 2017)

The first sentence of the above quote uses passive voice which gives the impression that it is designed by a professional team of people, who are hidden, behind the scenes, and therefore in some way powerful. The use of passive voice here seems somewhat at odds with the overall down-to-earth impression that the site wishes to convey, as passive voice is normally used in formal registers, such as reports. But, in this case, it is no doubt because the site also wants to convey professionalism and expertise, that it borrows from this more formal register. The rest of the paragraph adopts an informal, personal tone, with the use of active voice, the pronoun 'we', and the use of contractions such as "you're", "there's", "isn't". This casual and informal tone is also realised in the use of informal vocabulary such as "natty". It can be seen that Memrise alternates between formal and informal uses of language. This is employed to position itself as an expert on the one hand, and as a friend on the other. Below is a quote which conveys this expertise in a more explicit way:

Our memory experts have spent long, sleepless nights tinkering with exotic algorithms so as to be able precisely to estimate the point at which you're about to forget it. (Memrise 'About Us' page, 2017)

This quote is another example of the alternation between formal and informal language, at the same time conveying expertise in an explicit way ("our memory experts"...). The use of the word "experts" positions the learner as a novice who needs help from an expert. The use of the word "exotic" to describe "algorithms" is an unusual combination. However, it is a way to express expertise in a coded way, while also suggesting fun and play, and something new. The use of the words "precise" and "estimate" are more common in scientific genres. The appropriation of these words in a pedagogical context is another way for

Memrise designers to position themselves as experts who possess scientific knowledge about how to learn.

On the other hand, without wanting to position themselves as too authoritative, they also use language as a means to reduce the hierarchy and knowledge gap between them and the learners. It is realised by the use of informal language and by simplifying scientific jargon, as seen in the following examples:

In order to learn anything, you first have to connect it to what you already know. Memories aren't stored nowhere, you know, they're always made by creating connections to existing memories. Now, the more your brain does to encode a fact or word ['encode' is a fancy word for connect or associate with what you already know], the richer and more robust the resultant memory

The science of how different kinds of tests strengthen memories in different ways is exceedingly complex, and, not boring. In a nutshell, the more your brain has to work to recall a memory, the more it will strengthen that memory while recalling it (Memrise 'About Us' page, 2017)

In these examples, simple, concrete language is used. At one instance, an abstract verb "encode" is used, and the designer of the text provides an explanation to explain it.

In addition to the above examples, Memrise also makes use of easy-to-understand metaphors to help learners understand complicated concepts. For instance, in the following paragraph from 'Scheduled Reminders':

Sour milk. Moldy bread. Freezer-burned fish sticks. Like most organic matter, memories gradually decay over time. So it's vital to review what you have learned in order to keep it fresh (Memrise 'About Us' page, 2017)

And the following quotes from 'How the Memrise Garden works':

Memories, like living creatures, are born tiny and delicate. In early life they are very vulnerable, and they need time, care and a well balanced diet to grow to strength.

And even once full-grown, a memory will, like any young creature, still require regular nourishment to stay fit and healthy.

From these passages we can see how Memrise strives to simplify complicated concepts by comparing it to experiences or objects that learners are used to. By comparing memories with “living creatures” that are “tiny”, “delicate”, “vulnerable”, Memrise evokes the feeling of empathy as these tiny creatures are like babies that needs to be taken care of, in the same way as memories.

The use of informal and everyday language gives the sense that Memrise is like a friend who understands what learners need, and not like a teacher in a traditional sense. This kind of ‘understanding’ is also seen in the paragraph under “Community”:

Some of our team had a hard time in school, while others excelled: between us, we’ve aced or flunked almost every imaginable qualification. All of us, though, feel let down by our formal education.

Here Memrise positions itself as an ‘emphatic friend’. By establishing a common ground with learners who may not see themselves as academic, as a result of frustrating experiences at school, which Memrise claims its designers share. Through the use of colloquial language, such as ‘aced’ and ‘flunked’, they try to create a feeling of understanding that learners may not have a good experience of learning at school, and Memrise understands this, and is here to turn the bad experience into a good one.

In terms of the use of image, in the ‘About Us’ page, three images are used to accompany the text. There is a 3D model of a helix of molecules, a hexagon with arrows which resembles diagrams used in science textbooks to illustrate a process, and at the bottom of the page there is a cloud-like image with arrows pointing to it to illustrate its components (see Figures 5.4, 5.5 and 5.6 respectively). Interestingly, these images are like cartoons, which gives a feeling of childishness and accessibility, while being scientific at the same time. These kinds of images would be commonly found in science books for children.

To summarise, the expertise of Memrise is mainly realised in the use of language. The alternate use of formal and informal registers creates both a



feeling of expertise and friendliness. The use of cartoon images also expresses scientific knowledge, but in an easy-to-understand way.

## 2) 'Gamification' of language learning

Memrise uses a gardening metaphor for learning. Once users sign up to Memrise, they immediately become a farmer in the 'Memrise Garden'. In the 'Memrise Garden', learning means planting seeds, and reviewing is like watering a flower. The fun of using Memrise is also realised in its colour scheme. The use of flat, unmodulated colours reminds learners of the drawings made by children. Also, the use of cartoon images rather than photographs evokes the feeling of 'fun'. It makes learning like playing 'Farmville' (a once-popular game on Facebook) that is relaxed, enjoyable, and addictive to a certain extent. The excerpt below shows how Memrise describes its garden:

On Memrise, inspired by the organic nature of your memory, we've turned learning into a game where you grow a Garden of Memory. Every word begins life as a seed, you nurture it through reviews and tests until it grows strong, takes root and blossoms into a flower in your Long Term Memory (LTM). Once in Long Term Memory, you have to review each memory to keep it from fading - just like you'd water a flower to keep it healthy (Memrise 'About Us' page, 2017)

In an interview with the Guardian newspaper published on 20 November 2013, Ed Cooke, the CEO of Memrise, suggested that "people are increasingly looking to get entertainment from learning", and that is why they put in a lot of effort into "gamifying language learning" (Kiss, Green and Boyd, 2013). If used appropriately, digital gaming could be a valuable resource for language learning, especially when learners are able to turn this seemingly leisure activity into learning opportunities (deHaan, 2005; Leppänen and Piirainen-Marsh, 2009; Thorne, Black and Sykes, 2009; Cornillie, Thorne and Desmet, 2012; Reinders, 2012; Chik, 2014). Research on using games for language learning also suggests that games have the potential to increase learners' motivation (e.g. Brophy, 2010; Reinders, 2012; Gee, 2013). Gee (2003) argued that games allow learners to invest in new identities and they can be powerful motivators for deep learning. The learners featured in this study were also attracted by Memrise because they liked to see the reward after learning and reviewing. By turning a learning episode into a game, it makes learning addictive and fun.

However, the perceived benefits of gaming and learning should not be overstated. In deHaan's (2005) study of a student's acquisition of Japanese through digital gaming, he discovered that the gaming component could distract learners' attention in language learning.

The hybrid mix of entertainment and education accounts for the emergence of 'edutainment', characterised by the heavy reliance on "visual material, on narrative or game-like formats, and on more informal, less didactic styles of address" (Buckingham and Scanlon, 2005). For instance, in the 'About Us' page of Memrise, the use of contractions such as 'we've' and 'you'd' are widely used. They are characteristics of informal and spoken speech. Also, the use of second-person pronoun 'you' refers to the viewers directly, depicting a friendly relationship between Memrise and its users. The use of questions, such as "Want to learn more about the kooky scientific principles that make Memrise tick?", which contains informal words such as "kooky", also conveys a feeling of light-heartedness and humour. To summarise, the metaphor of 'language learning as gardening', which resembles popular online games helps to convey the belief that language learning is fun. Used in combination with a flat, unmodulated colour scheme and cartoon images this feeling of fun is reinforced.

### 3) Creation of an online community

On the 'About Us' page, it can be seen that Memrise considers itself as a community. This is explicit when examining the following quotes:

We believe learning should be as rich and varied as the world you're learning about. So with our community we're building a kind of multimedia wonderland of learning, where videos, audio, usage, mnemonics, etymologies and much more bring your learning to life.

We believe that every learner is partly a teacher, and we hope that once you get started, you'll soon be supplying little nuggets of wit and wisdom to help the rest of the community as they learn! (Memrise 'About Us' page, 2017)

Not only does Memrise consider itself as learning community, but it also wants to convey the idea that this community is built by both the Memrise team and the users by using pronouns such as "we" and "our". These pronouns signal

collective ownership. Furthermore, by emphasising the possibility that a learner is partly a teacher, it highlights the shared responsibility that users have towards the development of the platform.

However, the concept of community is under debate. Grossman, Wineburg and Woolworth (2000) argued that the notion of 'community' is becoming less and less clear with the prevalence of terms such as "discourse communities", "learning communities", "communities of practice", and so on. They further argue that:

*Community* has become an obligatory appendage to every educational innovation. Yet aside from linguistic kinship, it is not clear what features, if any, are shared across terms. This confusion is most pronounced in the ubiquitous "virtual community," where, by paying a fee or typing a password, anyone who visits a web site automatically becomes a "member" of the community. (Grossman, Wineburg, & Woolworth, 2000:6; original emphasis)

Likewise, Rhinegold (2000) asked the following questions in the context of virtual community to express his skepticism of the concept of 'community':

Is the use of the phrase *virtual community* a perversion of the notion of community? What do we mean by community, anyway? (p. 325, original emphasis)

On the other hand, Barab, Kling and Gray (2004) challenged the notion of 'virtual'. They argued that the line between what is 'real' and what is 'virtual' is increasingly blurred, as users are more and more fluent in using technology. What was once seen as 'virtual' communication may be seen as 'real' communication nowadays.

Nevertheless, for the sake of this thesis, I would still regard Memrise as a community, although I recognise the problems associated with it. The fuzziness between the 'real' and the 'virtual' has influenced me to see Memrise not as a 'virtual community', but rather as an 'online community'. Barab, Kling and Gray (2004) define an online community as

a persistent, sustained [socio-technical] network of individuals who share and develop an overlapping knowledge base, set of beliefs, values,

history and experiences focused on a common practice and/or mutual enterprise (p.23, original emphasis).

An illustrative characteristic of Memrise being an online community is its crowdsourcing nature, which shows how it makes use of the knowledge of the community to create new knowledge. Howe (2008) described crowdsourcing (with reference to online communities) in the following way:

Crowdsourcing capitalizes on the deeply social nature of the human species...crowdsourcing uses technology to foster unprecedented levels of collaboration and meaningful exchanges between people from every imaginable background in every imaginable geographical location. Online communities are at the heart of crowdsourcing, providing a context and a structure within which the “work” takes place. (p.14)

This idea resembles the notion of “funds of knowledge” (Moll et al., 1992) in which knowledge and experiences possessed by learners from all walks of life are valued and shared. Memrise offers a space for people to create and upload lessons that they created for other learners to use. The vocabulary or phrases are then stored in the ‘wiki’ so that when other users want to use these vocabulary or phrases in their own lessons, they can re-use them. In addition to this, under each vocabulary or phrase, users can create mems to help other people learn that word. These mems are then displayed like a slideshows and learners can choose which one is the most helpful for them. This sharing of resources is also in line with the concept of translanguaging which acknowledges the fact that all learners have different linguistic and semiotic resources in their repertoires, and these are useful resources for language learning. In other words, Memrise provides a “translanguaging space” (Li Wei, 2011a) for users to use and share language and semiotic resources creatively, primarily through the use of mems. Some of these mems are examined in greater detail in Chapter Seven of the thesis.

Memrise operates with a principle similar to social networking sites (e.g. Facebook and Twitter). To start with, all members have a profile page where they can upload a profile picture and a short bio that introduces who they are. They can ‘follow’ other members and ‘like’ other users’ mems. In addition to this, Memrise ranks users according to the points they have. To gain points learners have to learn, revise, create mems, etc. Learners with zero points are

called ‘Membryos’, a coined word from ‘mem’ and ‘embryos’; learners with 500 points are ‘Members’, and so on (refer to Figure 5.7 for a list of rankings). Learners can also earn ‘badges’ if they could learn continuously without stopping (‘Daily goal streak’). This feature is also shared by many other OLLPs. By creating these different levels and challenges, Memrise wants to create an addictive, game-like, competitive environment for learning. Indeed, as shown in the semi-structured interviews in Chapter Six, several participants in the study mentioned the addictiveness of Memrise and how they enjoyed language learning more because it feels like playing games.

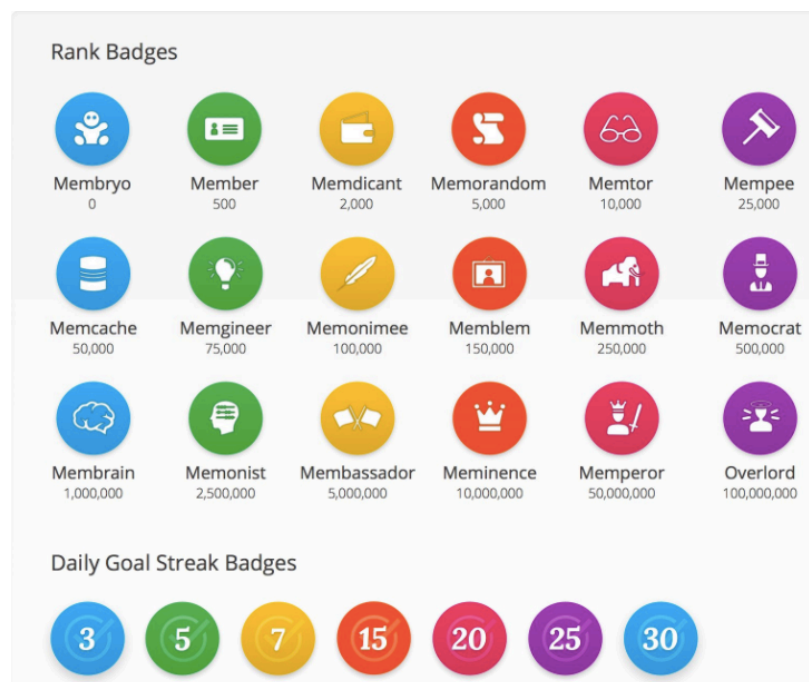


Figure 5.7: A list of rankings

In addition to individual, out-of-class language learning, Memrise can also be used to supplement formal classroom learning. Users can set up groups in Memrise, in which it is especially helpful for teachers who want to set up a group for students to practice their language alongside formal classes. Nonetheless, this function is outside of the scope of this thesis.

‘Leaderboards’ are also used by Memrise to create a sense of community. There are two kinds of leaderboards. One kind of leaderboard allows users to view the points of the people they are following, and the other one allows users

to view the points of the people who are on the same course. Memrise also has a forum where users can ask general questions about the platform or make suggestions. It also has a blog that offers learning tips.

The discussion above shows how Memrise establishes itself as an online community through the variety of functions it offers, each of which provides affordances for community-building. Moreover, the sense of community is also realised in language by the use of some linguistic devices, such as in the following quote:

Together we are smarter

Millions of people have learned what you want to learn. That's why on Memrise we're collecting all the most effective ways people have found of remembering all the most interesting information.

As you learn, you share your ideas to help others, just as you benefit all the time from the ideas other people have shared.

This way, we all learn quicker and more effortlessly. Memrise is the creative community for those who share the joy of learning. (Memrise 'About Us' page, 2017)

The use of the word "together" and "we" creates a common identity which Memrise and learners share. The word "share" repeatedly appears which emphasises the crowd-sourcing nature of Memrise. The sharing of idea is encouraged through highlighting the fact that as learners benefited from other people's ideas, they then have the responsibility to contribute as well to keep the community running.

One interesting observation about Memrise is in its naming system. The 'mem' prefix is used throughout the platform, and it is a prolific prefix which can generate a lot of new 'words'. These 'words' are only understood by people in the Memrise community. In other words, Memrise has created its own community by the creation of this lingo shared only with its users. A community is created by using linguistic means. Nevertheless, as illustrated by the semi-structured interviews, most learners do not see themselves as a part of a community. Instead, they see themselves as individuals who make use of the resources provided by Memrise. This will be discussed in Chapter Six.

To sum up, Memrise attempts to project itself as an online community through its functionality and its use of inclusive language. It is debatable whether it has successfully achieved this nonetheless. So far in this section, three pedagogic assumptions are discussed: 1) positioning as experts in the field, 2) 'gamification' of language learning, and 3) creation of an online community. However, one very important element of Memrise is not explicitly discussed in the 'About Us' page, which is 4) ownership of learning.

#### 4) Ownership of learning

The whole Memrise platform is built on a gardening metaphor. The use of a gardening metaphor to describe learning and reviewing gives learners the sense of ownership of their learning. In the "Garden of Memory", learners are seen as farmers who have to first sow the seeds (learning), and then nurture the seeds of memory by watering them regularly so that they would grow and blossom (reviewing). In the 'About Us' page Memrise expressed that "[w]e believe learning should be something you choose to do". Furthermore, implicitly, the abundance of the second-person pronoun "you" used throughout the 'About Us' page gives a sense of agency to the learners. This sense of responsibility helps learners to realise that they are the ones who control the learning, not someone else. Although Memrise creates templates so that all courses are presented in a standardised format, learners can still make decisions about the following aspects of learning:

**What to learn:** learners can choose which course to take according to their own learning needs.

**When to learn:** learners can decide on the frequency of learning and what time of the day to learn.

**Where to learn:** learners can decide where they want to learn, be it at home, or at the workplace.

**How to learn:** learners can decide whether to supplement their learning on Memrise with other resources. This is elaborated in Chapter Six.

Users of Memrise can take on dual identity as a 'learner' and/or as a 'teacher'. There are two main ways in which this is realised in Memrise. First, users can contribute to the wiki, a database of materials available for other users to use. Second, users can create 'mems' to be shared with other users. In this study, the focus is on the latter, the creation of 'mems' – a multimodal text which helps learners to learn Chinese characters. Learners can contribute 'mems' for other learners to learn from. In other words, all learners are positioned as an 'expert' in one way or the other, and they are free to use the resources available to create resources for other learners to use. The creation of 'mems' is discussed in Chapter Seven.

The ability to make meaningful decisions about learning demonstrates that the affordances of Memrise enables learners a high level of agency, which is usually defined as “the socioculturally mediated capacity to act” (Ahearn, 2001:112). In other words, users of Memrise can proactively learn what they choose to learn under their own specified conditions (e.g. when to learn, where to learn, how to learn etc.). From a social semiotic point of view, in relation to design,

[The contemporary social environment] make it possible and demand that individuals assume agency in the production of semiotic entities of all kinds – texts, 'arrangements', practices, objects. They do so not least in relation to the making of *knowledge*, of transforming *information* which they have selected in accord with their interests and needs, into the tools they need in their everyday social and communication lives (Kress, 2010:132)

As for the autonomy of learning, which is concerned about the psychological state of the learners, the belief that self-instruction and distance learning are necessarily autonomous modes of learning is still under debate. Benson and Voller (1997) argue that although self-access and self-instruction seem to afford a greater degree of learner autonomy than traditional classroom instruction, there is actually very little evidence that they alone are sufficient to give learners a high degree of autonomy. They find that learners engaging with self-instructional modes of learning without adequate support will “tend to rely all the more on the directive element in the materials that they use” (p. 9). Similarly, Rosewell and Libben (1994) argue that only the most motivated and talented



learners would succeed in this kind of learning arrangement. Furthermore, Fernández-Toro and Jones (1996) mention that self-instruction is only effective at a level where “the learner is able to cope with real-life texts and interactions”, for instance at the intermediate level (p.209). To conclude, technology allows learners to be autonomous only when it helps learners to make meaningful choices of their learning (Barnett, 1993). A moderate comment on this issue is that technology “increased affordances for autonomous learning” which offers the opportunity to “support the learning process” (Reinders and White, 2011:1). Self-instruction and distance learning place a higher demand on learners than classroom instruction. To overcome this, the learners featured in this study had to make use of different kinds of learning strategies and resources. These learning strategies and resources are examined in more detail in Chapters Six, Seven and Eight.

It is also worth noting that a high level of autonomy is one of the conditions for self-instructed learners to succeed, especially at higher levels of study, but very often these self-instructional materials assume that learners would follow a prescribed learning trajectory (Jones, 1993). Moreover, self-instructional materials are found to be lacking sufficient guidance for individual learners to use it as self-instructional materials (Reinders and Lewis, 2005). The design of Memrise does not assume learners to follow a prescribed learning trajectory. Learners can freely choose from the variety of courses available and decide which order to take them. Nevertheless, learners need to have a certain level of Chinese proficiency in order to make the most of Memrise.

To sum up, ownership of learning is realised by the use of language and the design of the platform. The use of pronouns such as “we” and “our” and the use of a gardening metaphor both achieve this purpose.

Thus far we have discussed how Memrise’s beliefs and assumptions about pedagogy is realised in its design through language and design. Part Three focuses on the pedagogic work done by individual modes, on how they contribute to the learning process.

## 5.8 Part Three: Pedagogic work of modes

As Littlejohn (2011) suggested with regards to the context of ELT that there is a need now more than ever to analyse teaching materials closely in order to examine the implications these materials have to learning and teaching. Not only is a linguistic analysis of these materials important, Chik (2015a) also argued that an examination of the semiotic resources available is also crucial in the analysis of teaching materials, as learners pay attention to both the linguistic and semiotic resources. In view of this, a social semiotic approach is used to perform a multimodal semiotic analysis of the learning environment provided by Memrise to describe and analyse the meaning potentials of the different modes offered, and identify their affordances to the learning and teaching of Chinese.

The method of analysis is based on the method outlined in Kress and van Leeuwen (2006) and Kress (2010). Quoting Kress' words once again,

Social semiotics and the multimodal dimension of the theory [social semiotics], tell us about *interest* and *agency*; about meaning(-making); about *processes of sign-making* in social environments; about the *resources* for making meaning and their respective *potentials* as *signifiers* in the making of *signs-as-metaphors*; about the *meaning potentials* of cultural/*semiotic forms*. The theory can describe and analyse all signs in all *modes* as well as their interrelation in any one text. (Kress, 2010:59; original emphasis)

It is evident that a social semiotic approach is a useful tool to analyse a multimodal text. My data analysis is also inspired by the framework used by Adami (2014a) in her comparative study of the aesthetics of food blogs, and Bezemer and Kress' (2016) study of textbooks.

In social semiotics, there is a concept of 'semiotic work'. It is a term to describe the sign-maker's agentive, purposeful action. It brings about changes to the tools, to the worker, and to what is worked on. All these are meaningful, and lead to new meanings for the sign-maker and her/his resources (Kress, 2016; personal communication). In my analysis I adopt the phrase 'pedagogic work' to highlight the fact that modes are purposefully used to achieve some pedagogical purposes for language learning.

Before looking into the affordances offered by the different modes used in Memrise, it is important to distinguish between two types of affordances: 1) modal affordances, and 2) affordances of the medium. Modal affordances focus on the “potentialities and constraints of different modes” (Jewitt, 2013:254). For instance, the affordance of the mode of speech is that it has the dimensions of temporality, pitch, volume, etc., which other modes, such as image, do not have. This type of affordances focus on what one mode, within a multimodal ensemble, can or cannot do. It should not be confused with the affordances of the medium which operates at a more holistic level. Instead of looking at what one mode can or cannot do, the affordances of the medium gives a functional analysis of what a range of modes can or cannot do. In this chapter, I examine modal affordances offered by five different modes used in Memrise: writing, speech, image, moving image, and page layout. I adopt this view of affordances in this thesis because it gives more detailed information about what roles do individual modes play in this learning environment. It has to be clarified that while I am separating modes as if they were individual components, modes always work in multimodal ensembles in the real world. The analytical separation of modes is only done for methodological reasons.

Now I turn my attention to examine the modal affordances of Memrise with reference to the actual learning pages. After performing a preliminary analysis of the platform, I decided to focus on five modes for comparison: writing, speech, image, moving image, and page layout. They are chosen because they are the five modes that are highly relevant to language learning in online platforms. This analysis aims to compare and contrast the pedagogic work done by different modes. This is summarised in Table 5.1 on P.175, which is a modified version of the categories used in Adami’s (2014a) comparison of the aesthetics of food blogs.

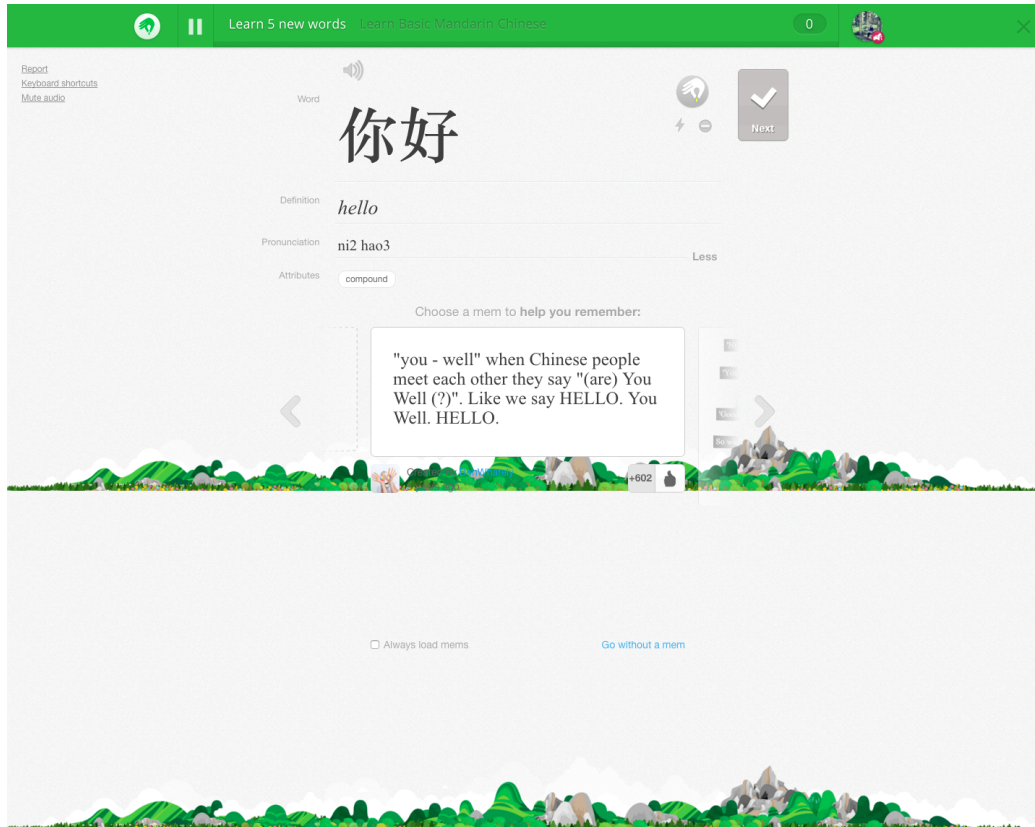


Figure 5.8: The learning page

### 5.8.1 Writing

Figure 5.8 shows the learning page of a lesson in Memrise. In Memrise, three different script systems are used: simplified Chinese characters, English letters, and pinyin symbols. There is a default language used, depending on the users' choice. In the case of this chapter I have chosen English to be the default language. These different script systems are normally used separately from each other, except in the case of mems where they are sometimes used alongside each other in one sentence. For details on how different script systems are used in mems, refer to Chapter Seven. One thing that is worth pointing out is the use of pinyin notation. Instead of using the 'standardised' form of pinyin symbols (i.e. *ní hǎo* for 你好), Memrise adopts a different kind of pinyin symbols (i.e. *ni2 hao3* for 你好). This is probably due to the difficulty in typing the tone symbols (refer to Chapter Two for an introduction to tones and Pinyin symbols).

The font used in Memrise is the standard font generated from the computer. The same font is used consistently throughout the platform. The writing that is presented is standard simplified Chinese widely used in mainland China. As for the register, in most cases it is formal, but in cases like mems, the register may sometimes be informal. For instance, the use of imperative in instructions, such as “Choose a mem to help you remember” is more formal than the writing used in the mems, which will be discussed in Chapter Seven.

Writing is used for an indicative function which helps learners make sense of what they are reading on the screen. For instance, along the left, in small, grey letters, the following words are shown: “Word”, “Definition”, “Pronunciation”, “Attributes” to indicate to learners that the characters and words that followed, which are shown in larger fonts, are the information that they need to learn.

### *5.8.2 Speech*

Speech in this case refers to the audio recordings that allow learners to listen to the pronunciation of the target vocabulary. In Memrise, the audio is represented by the icon of a speaker that is located at the top of the page. The quality of the recording varies from lesson to lesson. Some are of studio-quality and no background noise can be heard, which seem to be professionally-made, while in others some background noise can be heard, which seem to be more amateurish. Learners are free to listen to the recording repeatedly as they wish. In other words, they have control over the pace. The types of Chinese accent also varies from recording to recording. Some are recorded by people with a Northern Chinese accent, while some are recorded by people with a Southern Chinese accent. The function of speech in Memrise is to demonstrate the pronunciation of the target vocabulary.

### *5.8.3 Image*

The images in Memrise are mostly cartoon-like drawings that are colourful. The colours are unmodulated and contrastive, which evokes the feeling of looking at a child’s drawing, but at the same time it looks professionally designed. The selection of images related to the natural landscape gives the feeling of fun and

relaxation, which is in line with the pedagogic assumptions of Memrise that learning should be fun and enjoyable. In addition to that, to a certain extent, images are used to help with navigation. For example, an image of a speaker means audio. The landmark of different countries signify the languages of those countries, as in the example of French mentioned in Section 5.4 of this chapter. In mems, images are used to provide visual resources to help learners to remember a word, often by association. The constant use of cartoon images in Memrise may be what Chik (2015a) described as a kind of “discursive practices of infantilising learners as a display of power relations” (p.127).

#### *5.8.4 Moving image*

In Memrise, moving image is used in the selection of mems. Learners can move back and forth between different mems and decide which one they want to choose. This use of moving image gives learners the feeling of control: learners can choose which learning resources they want to use at their own pace. Also, sometimes within mems, moving image is used to illustrate how different radicals are combined to form a new word. This kind of animation is more complicated to make and so it signifies professionalism.

#### *5.8.5 Page layout*

The page is divided into three parts, marked by the colours green, grey and white. The green part allows learners to control the pacing of the lesson and look at the progress bar. The grey part shows the content of the lesson, showing the form of the word/phrase, English translation, pronunciation in pinyin and the attributes. The white box shows the mems created by other learners. The use of different colours and font size give salience to the area where the target material is presented.

Table 5.1: Pedagogic work of different modes in Memrise

Mode	Modal Element	Observable Descriptor	Evaluative Descriptor	Modal affordance
<b>Writing</b>	<ul style="list-style-type: none"> <li>• Script system</li> <li>• Font</li> <li>• Grammaticality</li> </ul>	<ul style="list-style-type: none"> <li>• Simplified Chinese characters</li> <li>• English alphabets</li> <li>• Pinyin</li> <li>• Standard language (in most cases)</li> <li>• Creative use of language (in <i>mems</i>)</li> <li>• Formal</li> <li>• Informal (in <i>mems</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Standardised</li> <li>• Professional</li> <li>• Authoritative</li> <li>• Down-to-earth (in <i>mems</i>)</li> </ul>	<ul style="list-style-type: none"> <li>• Serves indicative function</li> <li>• Presents words/phrases</li> <li>• Shows translation</li> <li>• Shows pronunciation (pinyin)</li> <li>• Helps learners make association of new words with their L1</li> <li>• Describes etymology of words</li> </ul>
<b>Speech</b>	<ul style="list-style-type: none"> <li>• Quality of recording</li> <li>• Types of Chinese accent</li> </ul>	<ul style="list-style-type: none"> <li>• Background noise (for some recordings)</li> <li>• Studio-quality (for some recordings)</li> </ul>	<ul style="list-style-type: none"> <li>• Amateur (for some recordings)</li> <li>• Professional (for some recordings)</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates pronunciation of words/phrases</li> </ul>
<b>Image</b>	<ul style="list-style-type: none"> <li>• Palette</li> <li>• Type</li> </ul>	<ul style="list-style-type: none"> <li>• Colourful</li> <li>• Unmodulated</li> <li>• Contrasting</li> <li>• Cartoon drawings</li> <li>• Photos (in some cases)</li> <li>• Natural landscape</li> </ul>	<ul style="list-style-type: none"> <li>• Fun</li> <li>• Relaxed</li> <li>• Child-like</li> <li>• Professionally-designed</li> </ul>	<ul style="list-style-type: none"> <li>• Provides visual resources to aid memory</li> <li>• Provides visual resources to help form associations</li> <li>• Supports the writing</li> </ul>
<b>Moving Image</b>	<ul style="list-style-type: none"> <li>• Type of movement</li> </ul>	<ul style="list-style-type: none"> <li>• Animation</li> <li>• Moving back and forth</li> </ul>	<ul style="list-style-type: none"> <li>• Professional</li> <li>• Fun</li> <li>• Dynamic</li> <li>• Control</li> </ul>	<ul style="list-style-type: none"> <li>• Animations to illustrate the combination of Chinese radicals to form characters</li> <li>• Choosing appropriate <i>mems</i> by moving back and forth between them</li> </ul>
<b>Page Layout</b>	<ul style="list-style-type: none"> <li>• Arrangement</li> <li>• Framing</li> </ul>	<ul style="list-style-type: none"> <li>• Modular</li> <li>• Spaced</li> <li>• Regular</li> </ul>	<ul style="list-style-type: none"> <li>• Modern</li> <li>• Self-directed</li> <li>• Tidy</li> </ul>	<ul style="list-style-type: none"> <li>• The use of different colours and font sizes gives salience to the area where the target material is presented</li> </ul>

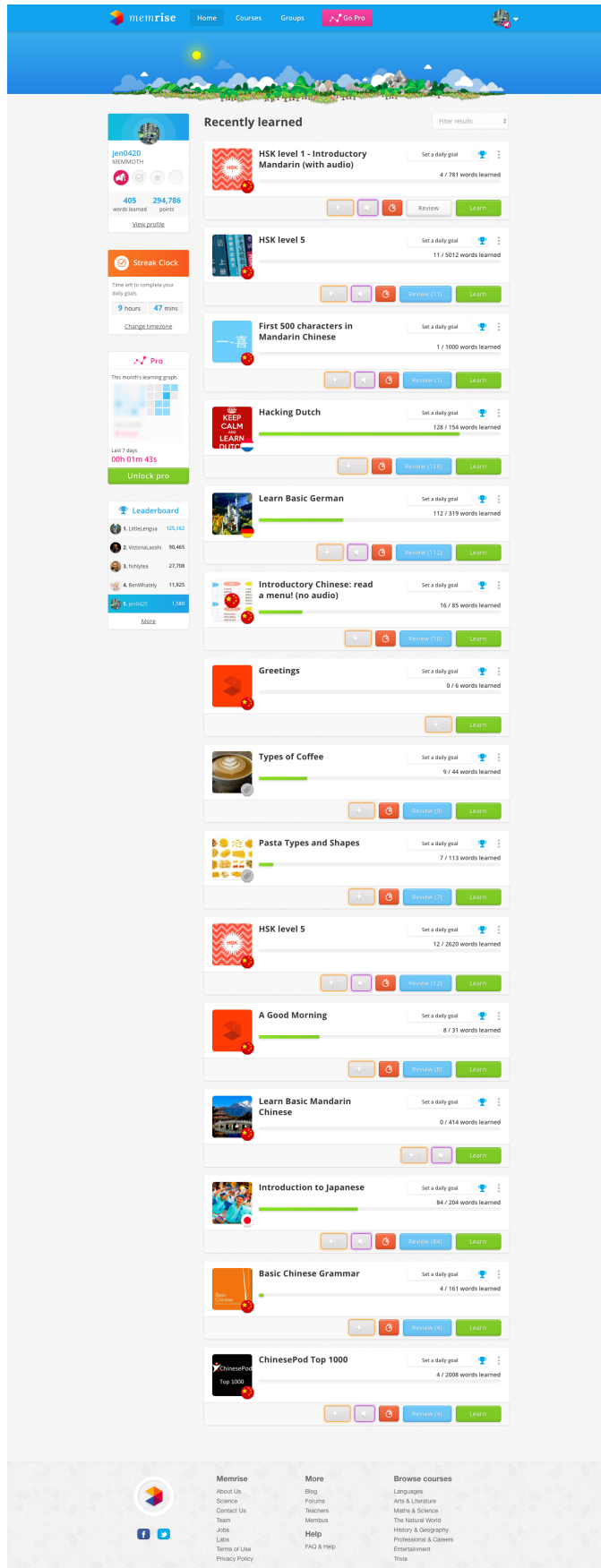


Figure 5.9: The 'dashboard' page



### 5.8.6 Reading path of the 'dashboard' page

After analysing the pedagogic work that each mode does in the 'learning' pages, I now look at the 'dashboard' page (see Figure 5.9), as it is the page that organises a learner's language learning journey. Viewing the Memrise 'dashboard' page as a whole, it adopts a vertical, two-column structure which is arranged in a modular way. This arrangement reflects several social meanings. Firstly, in terms of authority, the texts here do not encourage a particular reading path. Learners are free to choose their entry point. For instance, depending on which lessons that learners want to engage in, they go directly to that lesson. In other words, the author of this text, in this case the designer of the platform, does not have authority in shaping how learners read the text. Reading path is now shaped by learners' *interests*, and that a different kind of *semiotic work* is required from the learners to 'redesign' the text to make it align with their *interests* (Kress, 2010). Agency is also encouraged by the use of a modular reading path. As Domingo, Jewitt and Kress (2015) discussed in the context of the reading paths of websites,

modularity inverts the social and power relations of maker and reader. It rests on a different distribution of responsibilities: namely that the task of the designer(s) is to assemble materials, contents, which will prove to be of interest to a reader, who will then make their choice about where to enter the page, and, by doing that, make a decision about how to move through the website (p.256)

Under a modular arrangement, the reader has to make decisions about how to navigate a page according to their own interests, as the reading path is not prescribed, as in a linear arrangement. This gives agency to learners to make decisions about their learning.

The reading on a page and on screen makes a difference in how a text is being read. In Kress' (2003) words, when reading a page, "the task of the reader...is to observe and follow a given order, and within that order to engage in interpretation...the task of the reader of the new page" whereas on screen, "[the task of the reader] is to establish the order through principles of relevance of the reader's making, and to construct meaning from that" (p.162). Secondly, in terms of identity, learners are no longer passive receivers of information. They are now placed in an active role to 'redesign' the text – a shift in agency. In

Bezemer & Kress' (2016) study on textbooks between 1930 and now, they identified the gains and losses in the shifts in modes of representation of textbooks across time. They observed that:

For 'users' of textbooks the changes in design demand new forms of semiotic work: a fluency not only in 'reading', writing, image, typography and layout jointly, but an understanding of the overall design of a multimodal text. The changes in the design of textbooks also convey major shifts in pedagogic relations between 'producers' (as initial makers) and 'users' (as makers in their iterations); for instance, where previously reading paths were fixed by authors, increasingly that is now left to readers to establish these or not – according to their interests) (Bezemer & Kress, 2016:496)

## **5.9 Summary**

This chapter has presented an overview of Memrise by analysing the overall presentation of the platform. I started with an introduction to Memrise, then I analysed the Memrise site in three parts. In Part One, I introduced the criteria that I used for analysing the 'About Us' page by listing some guiding questions to aid my analysis. In Part Two, I performed a multimodal analysis of the 'About Us' page, and four pedagogic assumptions are discussed in relation to different modes of representations, namely 1) positioning as experts in the field, 2) 'gamification' of language learning, 3) creation of an online community, and 4) ownership of learning. Lastly, in Part Three, I discussed how five chosen modes: writing, speech, image, moving image and page layout perform different pedagogic work in Memrise based on the modal affordances of each mode. Next chapter focuses on the learners' multilingual and multimodal repertoires by examining the resources available to them when they used Memrise to learn Chinese.

## **Chapter Six: Learners: An overview of their repertoires**

### **6.1 Chapter synopsis**

In Chapter Five I presented an overview of Memrise with a focus on its pedagogical assumptions and how they are realised through different modes. I also examined in detail the modal affordances of each mode, and what pedagogical work they do. In other words, I looked at the resources provided by the platform. In this chapter I turn attention to the learners and examine what resources are available to them through a repertoire approach. To do this, I present the demographic information of the 11 learners featured in the study in order to understand what resources they bring with them to the learning environment. Through detailed analysis of the screen-recording footage, I present a breakdown of the activities that learners engaged in Memrise, which are 'learning', 'reviewing', 'mem-making', 'editing/creating lessons', and 'searching for information using third party sites'. I define these 'activities' and I discuss the rationale behind some of the learners' choices to engage in certain 'activities' in Memrise using data from semi-structured interviews (refer to Chapter Four for the details on semi-structured interviews). Lastly, I describe and analyse how a learner uses the resources that he had in an innovative way to facilitate his learning of Chinese.

This chapter aims to give an overview of the plethora of resources that learners used to learn Chinese, in addition to those provided by Memrise. More importantly, I argue in this chapter that learners do not only use a single resource to learn Chinese on Memrise; instead, they use a combination of multimodal and multilingual resources which demonstrates their agency in learning.

### **6.2 The learners**

This section features the 11 learners who volunteered to participate in the study. As mentioned in Chapter Four, these learners were recruited through online channels, as a result, they were from different parts of the world, and each of them has their own set of communicative resources and experiences. Following the repertoire approach discussed in Chapter Three, in order to

understand how and why learners used resources the way they did, it is crucial to examine their trajectory as an individual, as repertoire is a record of their mobility (Blommaert and Backus, 2013). The data below was collected through structured interviews, email correspondences and Skype semi-structured interviews (see Chapter Four for details of how these interviews were conducted).

#### Learner 1: George

George was originally a student studying Education in Australia, and at the time of the research he had been teaching English in a primary school in China for eight months, aiming to return to Australia some time in the future to finish his degree and be a primary school teacher. He was in his 30s and he speaks English as his first language. He learnt German for one year while he was at school, and had learnt some basic Japanese using self-instructional materials (with a book and CD-ROM) before he went travelling in Japan. Prior to his teaching in China, he was there for a holiday, and he started learning bits of Chinese. After the holiday he decided that he wanted to teach in China, and started taking Chinese learning seriously.

Before he went to China, he learnt Chinese through different resources, including travel books, self-instructional materials (book and CD-ROM), Livemocha website (no longer exist), Chineasy book and website (<http://www.chineasy.com/>), and he had also learnt Chinese from socialising with Chinese speakers through online platforms. After he had arrived in China, he received private lessons from a Chinese colleague and started using Memrise. He expressed that among all the online platforms that he had used, he used Memrise for the longest. He used it especially for learning characters. He created mems to help him remember characters that he came across during his learning, one such mem is featured in Chapter Seven of the thesis. He particularly liked the reward system on Memrise. He would set a 'daily goal' for each day and felt accomplished if he successfully achieved the goal. On the other hand, he also enjoyed one-to-one tuition because it gave him the pressure to review before the lesson. He expressed his intention to reach basic conversation level so he could confidently chat with Chinese speakers.

### Learner 2: Neil

Neil is a Belgian in his 30s. At the time of the research he was a Postdoctoral Fellow working in a university in South Korea. He is a Belgian who speaks French at home. He also speaks Dutch as he grew up in the Dutch-speaking area of Belgium. In addition to this, he also speaks English, Spanish and Korean. He learnt Spanish from Duolingo (<https://www.duolingo.com/>), another OLLP, when he worked in South Korea. He learnt Korean from Memrise.

In his late teens he took a gap year to China, and in that year he had learnt some spoken Chinese and attended some Chinese lessons, but not in a systematic way. It also ignited his interest in the Chinese language. When he reached his adulthood, he wanted to learn Chinese again, with a focus on characters, and he used Memrise for that. He created mems to help him remember characters or phrases, one of these mems is featured in Chapter Seven of the thesis. He described using Memrise to be as attractive as playing Candy Crush (a once-popular game on smartphones). However, he was also very clear where to draw the line between treating Memrise like a game and learning Chinese seriously. He had a clear agenda for his learning and he was focused in achieving the goals that he set himself. Indeed, he expressed in one of his emails to me that he found attending a class or studying from a book difficult for him because these methods do not consider the different learning pace of students. His goal of Chinese learning was to have in-depth conversations in Chinese.

### Learner 3: Vicky

Vicky was also an English teacher working in China at the time of the research. She was in her 20s and she was originally from Britain. English is her first language. She also speaks Welsh as she grew up in Wales. She knows a little bit of Turkish as she worked there for a year. She learnt Turkish using Memrise and socialisation with other people there.

After she had arrived in China for work in 2011, she started taking Chinese classes provided by her employer, and she also supplemented it with other

resources such as Pimsleur (<http://www.pimsleur.com/>) and other online resources that she could find, that was when she started using Memrise. Among the four modalities of language learning (Reading, Writing, Speaking and Listening), she was more interested to learn Reading, Speaking and Listening, but not Writing. She explained that there were many apps that could help her generate a character with pinyin, so she did not have to learn how to write the characters. Her goal of Chinese learning was to be able to get on with everyday life and had basic conversation with people there.

#### Learner 4: Liz

Liz was a substitute teacher and a freelance book narrator from the United States. She was in her 20s. She is a language lover who knows French, Ancient Greek, Latin, German, and Toki Pona (a constructed language). Her first language is English. She was also open about the fact that she had some learning difficulties. However, she did not disclose whether she was diagnosed with them or whether it was in her own estimation that she had problems in this area. Nevertheless, the learning difficulties did not seem to interfere with her interest in language learning. She expressed that she learnt most of the above-mentioned languages from school, but she learnt German and Toki Pona by self-instruction, through the use of different OLLPs such as Duolingo. While Duolingo has an implicit focus on grammar, Memrise has an explicit focus on vocabulary, and that is why Liz used Memrise just for the “rote memorisation of vocabulary” (interview 1). She also liked the “Streak” feature of Memrise to keep her motivated every day without wanting to break the streak.

Her reason for learning Chinese was to challenge herself, since she had already learnt so many languages, and Chinese has a reputation of being challenging to learn. One thing to note is that she was firm about not wanting to learn the writing system, no matter which language she was learning. However, she changed her mind during the course of the research. She was quick to realise the importance of learning the writing system as well as the principles of composition of Chinese characters. She had a high awareness of stroke order of Chinese characters due to her experience of learning Chinese calligraphy when she was at school. Her example features in Chapter Eight of the thesis.

#### Learner 5: Raymond

Raymond had been an English teacher in China for three years at the time of the research. He was in his 20s and was from the United States, and he speaks English as his first language. He also learnt German when he was at school.

His reason for learning Chinese at the beginning was for survival. In the first few months of arriving in China, he learnt bits of the language through books, but it was not very helpful to him, until he found Memrise. He particularly liked the scheduled reminder function and the mems on Memrise. After settling in China his goal of Chinese learning changed from survival to staying there for work. At the time of the research, he was using Memrise to prepare himself for an HSK 2 test the week after the interview. Memrise was the only proper learning resource that he used to prepare for the test. He also mentioned that he would occasionally ask his Chinese colleagues when he encountered questions. As for his goal of learning Chinese, he wanted to achieve a proficiency that would enable him to find a job at a multinational company in China.

#### Learner 6: Daniel

Daniel was a German diplomat in his 20s working in China at the time of the research. He speaks German as his first language, and he also knows English, French and Japanese. He learnt the first two languages at school, and he learnt Japanese by attending language classes while he lived in Japan.

He mentioned two reasons why he wanted to learn Chinese. First, he moved to China for work, that was why he wanted to learn Chinese. Second, as his family is half Chinese, he had been interested to learn Chinese even before he moved to China for work. Before he went to China, he lived in London, and he was already taking Chinese classes there. When I interviewed him, he was preparing for the HSK 4 test. He used different resources to learn Chinese. He based his learning on a textbook because it contained all the words that he needed to know for the test. He then imported the content of the text to Memrise for more focused studying, particularly in terms of vocabulary. The way he combined resources to learn Chinese is presented in section 6.6 of this

Chapter. Memrise was also for him to study while he was on the go without having to take the textbook with him. He also used ChinesePod, another OLLP for more general studying. His long-term goal was to achieve a higher-intermediate level of Chinese so that he could communicate fluently and be able to read news in Chinese.

#### Learner 7: Henry

Henry was an undergraduate student from the Czech Republic. He was in his 20s and he speaks Czech and Slovak as his first languages. Other than that, he also speaks English, Russian, Spanish and German. He learnt English, German and Spanish while he was at school, and he was able to pick up Russian through the media without much difficulty because it is similar to Czech. He started attending Chinese classes at his university in 2014 because he wanted to learn a language that has a lot of speakers in the world. Also, he thought that it would be useful to learn Chinese as China is an emerging economic power. However, he did not think the classes were helpful for him, and he thought he would be better off studying on his own. He used Memrise as the main learning platform, and he used a textbook as well. Memrise for him was for vocabulary learning, while the textbook was for grammar.

#### Learner 8: Valerie

Valerie was an undergraduate student studying Multilingual Communication in Germany, where she was born and bred. Her family was originally from the Silesian area. She was in her 20s and she described herself as being raised as a German monolingual. She also speaks English, French, Spanish, Polish and Portuguese. She learnt English, French and Spanish at school, and she learnt Polish using Babbel (<https://www.babbel.com/>), an OLLP, and on a language exchange programme to Krakow. She had just started learning Portuguese through Babbel as well. She mentioned that she obtained the best marks for languages when she was at school, and she felt that she did not have to do much to achieve high marks for language classes, so she found it motivating.

She first started learning Chinese purely because she wanted to take on an additional language, and she did not want to take the other languages offered



by her university, except Chinese. Between semesters she used Memrise to keep herself studying so she would not forget the things that she had learnt during the semester. She also used it for English learning. Unlike most learners who felt sufficient to be able to type Chinese characters using pinyin, Valerie wanted to learn how to write the characters as well. Her experience of learning to write characters is discussed in Chapter Seven of the thesis.

#### Learner 9: Helen

Helen was a Masters student from the UK. She was in her 20s and she speaks English as her first language. She also speaks French, Romanian and Japanese. She learnt French at school, and learnt Romanian through Memrise and socialising with her Romanian housemate. She also learnt Japanese with Memrise.

Her reason for learning Chinese was that she had a few friends from China and she would like to talk to them in Chinese. Having learnt Japanese in the past, she thought that she would be able to use her knowledge of Japanese to help her learn Chinese, especially in terms of writing. Similarly, she hoped that by learning Chinese, it would help her improve her Japanese. For the longer term, she saw knowing Chinese as a way to open doors to a more global career opportunity for her. She had just started learning Chinese for this study so she did not have concrete goals yet. She mentioned that it would be nice to know a few words in the short run, and if she enjoyed it, she would like to continue and hopefully be able to have a conversation with Chinese people.

#### Learner 10: Harry

Harry was a software developer in his 20s from Poland. His first language is Polish, and he also speaks English, French, German, Latin and Russian. He learnt Latin and Russian solely from school. For English, he had been learning it since elementary school, and he also used Memrise and a website called Supermemo (<https://www.supermemo.com/>). For German, he learnt it at school and university, at the same time using Memrise and Supermemo. For French, he learnt it through classes at university, staying in France for five months, plus

a variety of online resources including Memrise, Livemocha, Duolingo and Supermemo.

Harry had been learning Chinese for two years at the time of the research. He wanted to learn Chinese because it was different from the European languages that he used to learn. He first started attending classes at the Confucius Institute, at the same time using other resources including Livemocha, Memrise and Supermemo. He expressed that he would like to participate in the study to motivate him to put in more effort to learn Chinese.

Learner 11: Ella

Ella was in her 20s. She was a doctoral student from the United States who was studying in London at the time of the research. Her research interest was Chinese History. She learnt French while she was at school.

She studied History for her undergraduate degree, and was introduced to China through one of the courses that she took. She felt that most of the countries that she studied were European countries, but not a lot of attention was devoted to the study of Asian countries. That was why she started having an interest in China. She started learning Chinese because she studied Chinese History and Arts, and she felt necessary to learn the language as well. In the interview she expressed that it would be arrogant if anyone studies a country without knowing the language. She learnt Chinese in a number of ways. She attended evening classes for two years, and she had private Skype lessons with tutors in China. Her goal was to be fluent in Chinese so she could have proper conversations with people in Chinese.

### *6.2.1 Summary of the learners*

The above discussion is mainly focused on the language learning histories and experiences of learners. As Pavlenko (2007) explained, eliciting life histories that focus on the languages of the speaker allows us to understand how and why these languages were acquired, used, or abandoned from the learners' perspective. Table 6.1 shows a summary of the background of the learners:

Table 6.1: A summary of the backgrounds of the learners featured in the study

<b>Name (pseudonym)</b>	<b>Age</b>	<b>Nationality</b>	<b>Occupation</b>	<b>Languages spoken*</b>
George	30+	Australian	English teacher in China	English
Neil	30+	Belgian	Postdoctoral Fellow in South Korea	French, English, Dutch, Spanish, Korean
Vicky	20+	British	English teacher in China	English, Welsh, Turkish
Liz	20+	American	Substitute teacher/freelance book narrator	English, French, Ancient Greek, Latin, German, Toki Pona
Raymond	20+	American	English teacher in China	English, German
Daniel	20+	German	Diplomat in China	German, English, French, Japanese
Henry	20+	Czech	Undergraduate student in the Czech Republic	Czech, Slovak, English, Russian, Spanish, German
Valerie	20+	German	Undergraduate student in Germany	German, English, French, Spanish, Polish, Portuguese
Helen	20+	British	Masters student in the UK	English, French, Romanian, Japanese
Harry	20+	Polish	Software Developer in Poland	Polish, English, French, German, Latin, Russian
Ella	20+	American	Doctoral student in the UK	English

\* The first language on the list represents L1. Chinese is not included in the list because all of them are already Chinese learners.

### 6.3 The repertoire approach

To sum up, all the 11 learners have a unique set of resources that make up their repertoires. These resources are mobile and multimodal. Some examples

include linguistic, semiotic, previous language learning experiences, life experiences, migration patterns, and so on. Each of these would contribute to a learners' repertoire. By using the repertoire approach, more information about the participants could be gathered, which provided additional information that would have been missed had it not been used. For instance, in George and Neil's cases, they had a practical need to learn Chinese, and it prompted them to use languages creatively by creating multimodal texts (as is discussed in Chapter Seven). This is in line with Lantolf's (1997) finding that learners whose goal was to learn the language because it was interesting or had a high relevance to their future success were more likely to play with the language than those who studied the language merely to fulfill a requirement.

From the above discussions, it can also be seen that learners are resourceful not only in a sense that they are able to use a combination of online and offline resources effectively (as is discussed in Chapter Eight of the thesis), but they are also able to draw on seemingly unrelated experiences to help them learn Chinese. For instance, Liz, who had already learnt five other languages in addition to Chinese, was confident that she knew how to best teach herself Chinese because of her experience in language learning. She was able to realise the importance of learning the writing system, although she was firm that she did not think writing was important at the very beginning. The fact that she adjusted her thinking and adapted her previous experience to learning a new language showed metalinguistic awareness that was developed through experience. She was also able to connect her experience of Chinese calligraphy as a student to the present learning environment. This shows how the repertoire of knowledge that she had was not compartmentalised, instead, they were connected. Another example is Helen, who knows Japanese before learning Chinese. She was convinced that her knowledge of Japanese, especially the kanji that she learnt in Japanese would be able to help her with learning Chinese characters, and vice versa. This is another example of how languages do not exist separately, and that learners can draw on this knowledge to help them learn a new language. To sum up, the repertoire approach has been helpful for me to gain a deeper level of understanding about the participants. It allows me to make sense of how they made sense of their

world. Had a repertoire approach not been used, a lot of details would have been missed.

## **6.4 Ways of using Memrise**

After understanding the background of the learners who participated in this study, I will now present in this section the activities that they engaged in while using Memrise and discuss the time they spent on these activities. This data was generated by analysing the screen-recording videos that learners submitted. In the later part of this section, I analyse the semi-structured interviews and email correspondents I had with the learners and isolate some themes that learners brought up when they discussed how they used Memrise.

### *6.4.1 Breakdown of activities*

Table 6.2 shows a detailed breakdown of the kinds of activities that learners engaged in. Figure 6.1 shows the proportion of time of each activity. It focuses on five different activities: 'learning', 'reviewing', 'creating mems', 'editing/creating lessons', and 'searching for information using third party sites'. These five categories were identified based on analysis of the screen-recording videos collected. These are the top five activities (in terms of time allocation) that learners engaged in.

Table 6.2: A breakdown of the activities that learners engaged in

Participants	Learning	Reviewing	Creating mems	Editing /creating lessons	Searching for information	Total time of recording
George	00:00:00	03:01:47	00:12:02	00:00:00	00:00:00	03:07:05
Neil	01:55:00	00:15:00	00:13:59	00:00:00	00:09:11	01:51:00
Vicky	00:04:00	01:36:48	00:00:00	00:00:00	00:00:00	01:52:56
Liz	00:30:09	00:13:02	00:00:00	00:00:00	00:00:00	00:48:05
Raymond	00:11:03	00:55:30	00:00:00	00:00:00	00:00:00	01:13:26
Daniel	00:14:42	00:33:10	00:00:00	00:03:29	00:00:00	00:52:54
Henry	00:00:00	01:37:00	00:00:00	00:00:00	00:00:00	01:24:01
Valerie	01:08:54	01:14:48	00:00:00	00:00:00	00:07:03	02:39:27
Helen	00:26:16	00:01:13	00:00:00	00:00:00	00:00:00	00:33:14
Harry	00:59:04	00:36:57	00:00:00	00:00:00	00:00:18	01:45:46
Ella	01:10:21	00:46:46	00:00:00	00:00:00	00:00:00	02:08:20
<b>Total</b>	<b>06:39:29</b>	<b>10:52:01</b>	<b>00:26:01</b>	<b>00:03:29</b>	<b>00:16:32</b>	<b>18:46:58</b>

\*The times are shown in the following format - hour:minute:second

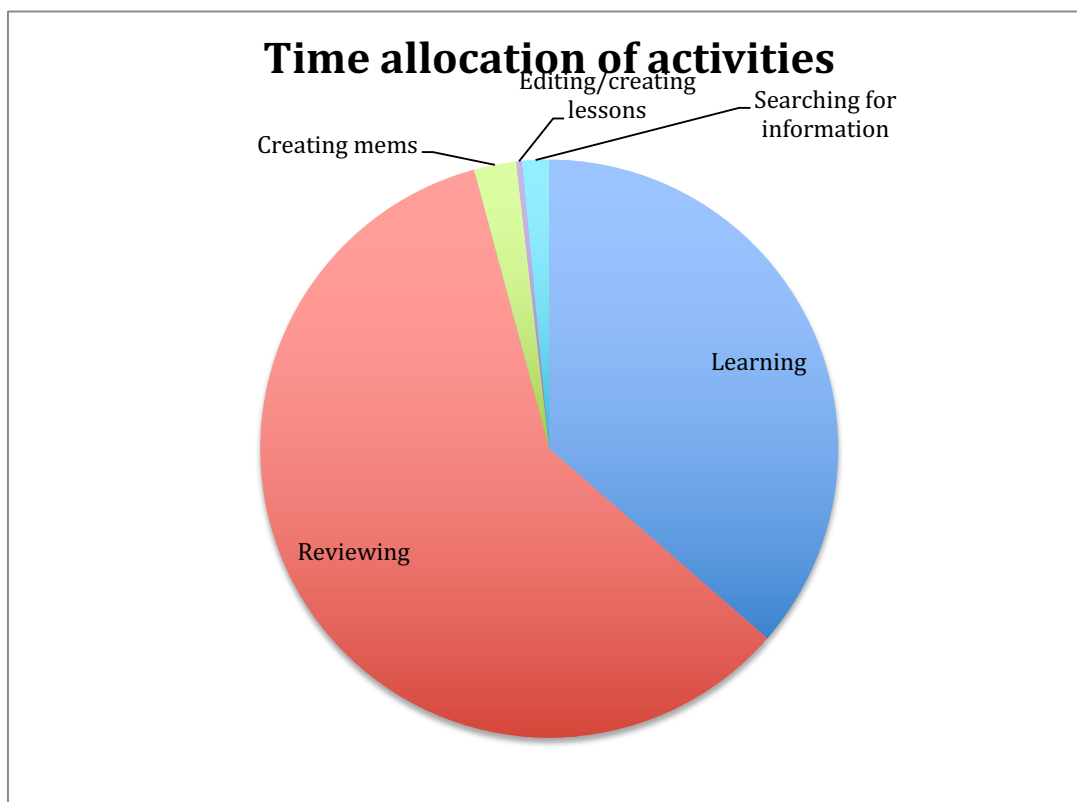


Figure 6.1: The proportion of time for each activity

The table and pie chart above show the five main types of activities that learners engaged in while they were using Memrise and the time they spent on them. Below are the definitions of the five activities:

1. 'Learning': In the context of Memrise, 'learning' refers to the discovery of new vocabulary. It refers to the time when learners are presented with new lexical items. It usually takes two forms: 'learning' of form, and/or 'learning' of pronunciation. In some lessons the 'learning' of form and pronunciation are combined, while in some lessons they are separated. 'Learning' of meaning only occurs when the character or radical has a meaning. Sometimes if the focus is on radicals, there may not be a concrete meaning to be learnt. The types of activities involved in a 'learning' session could also include accessing mems made by other users, creating mems, searching for information from sources, and consolidation practices in the form of typing or multiple-choice. 'Learning' is written within a quotation because this is the term used by Memrise, which does not necessarily equate to the notion of 'learning' in the literature. Figures 6.2-6.5 shown below show the sequence of events within a 'learning' session:



Figure 6.2: Presentation of new item 1



Figure 6.3: Multiple choice question of previously learnt item 1

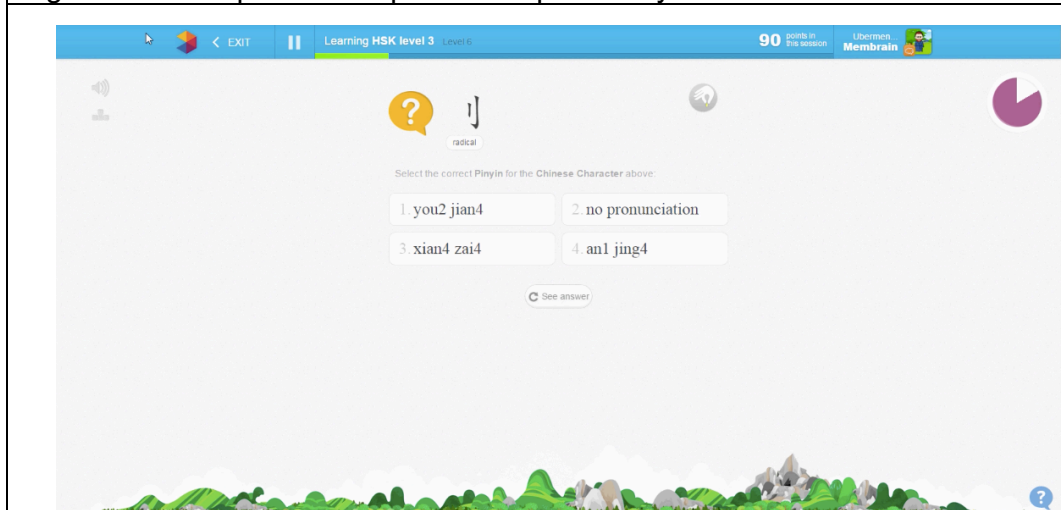


Figure 6.4: Multiple choice question of previously learnt item 2

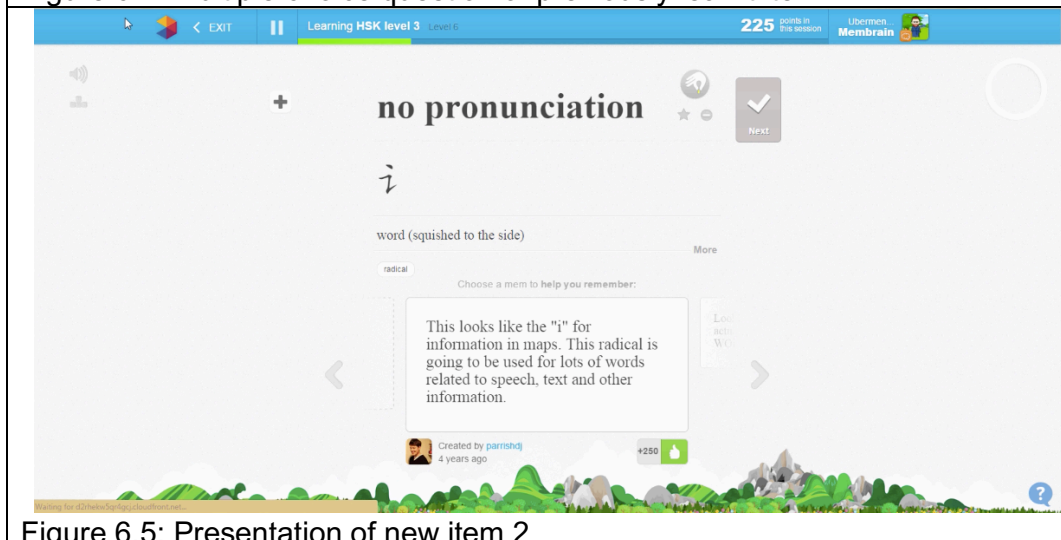


Figure 6.5: Presentation of new item 2

2. 'Reviewing': this activity refers to the practicing of newly learnt vocabulary. It refers to the time when learners review lexical items that they encountered in



'learning' sessions. During review, learners are prompted to either answer a multiple-choice question or to type in the correct word in the space provided. If learners put in a wrong answer, they have a chance to revisit the mem that they have chosen to remind them of the correct answer. They can then retype the answer. Similar to "learning", the types of activities involved could also include accessing mems made by other users, creating mems, searching for information from sources. Figure 6.6-6.11 below show the sequence of events within a 'reviewing' session:

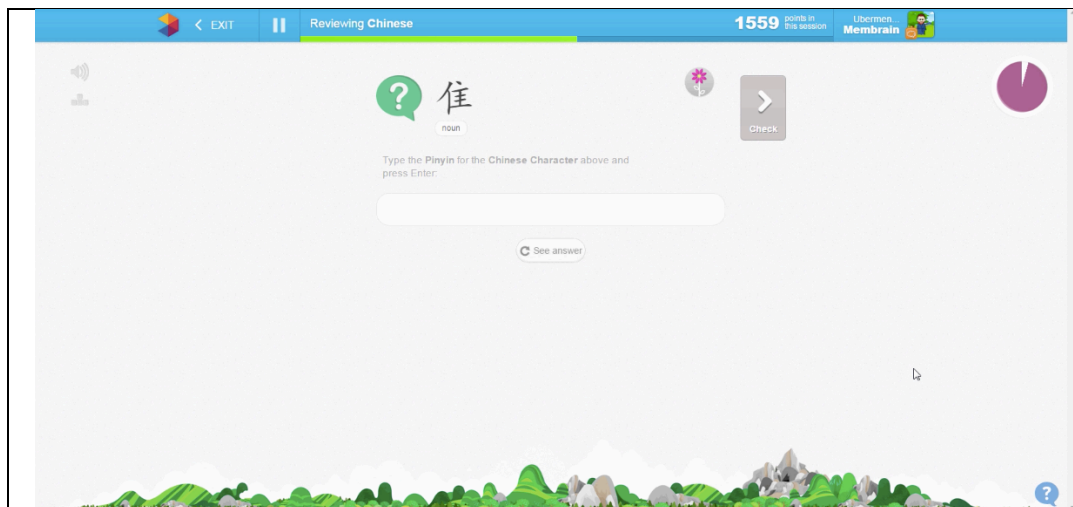


Figure 6.6: Presentation of a vocabulary that was learnt previously. Learners have to type in the correct pinyin for the Chinese character

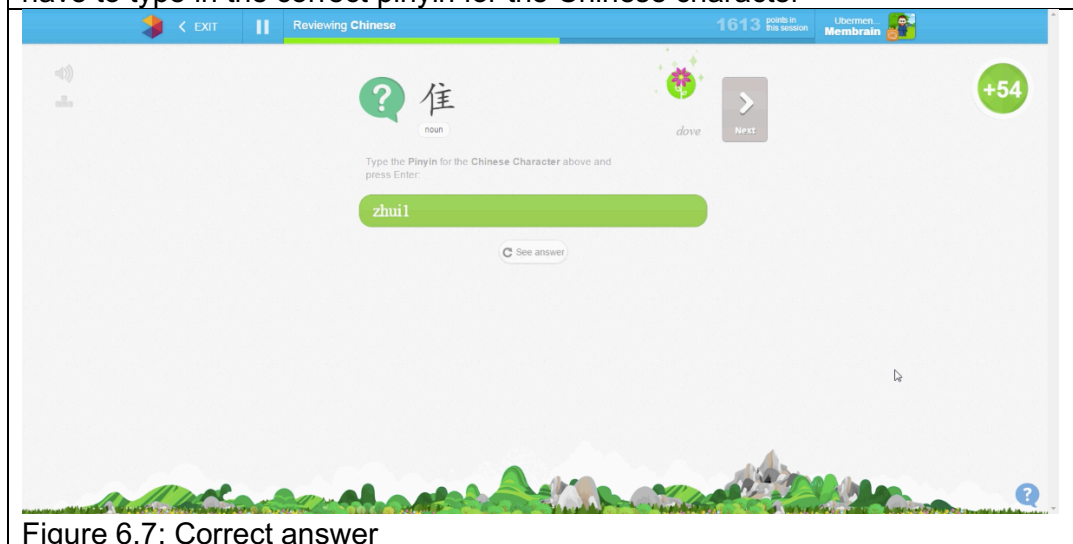


Figure 6.7: Correct answer

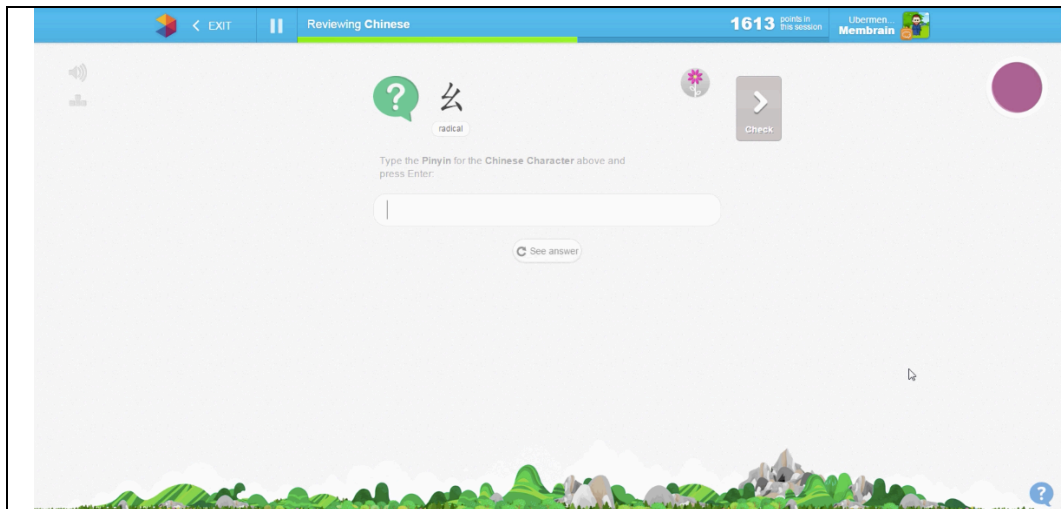


Figure 6.8: Presentation of another vocabulary

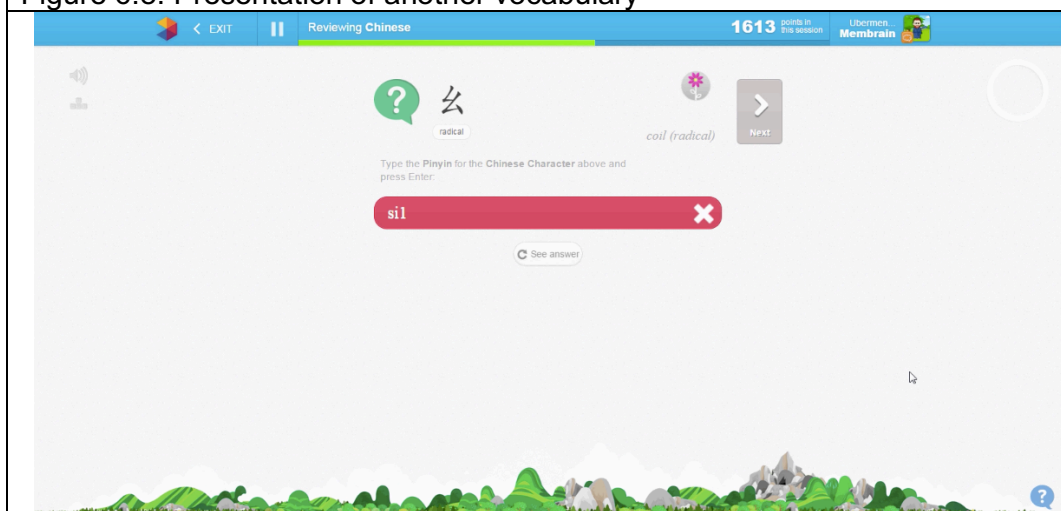


Figure 6.9: Wrong answer

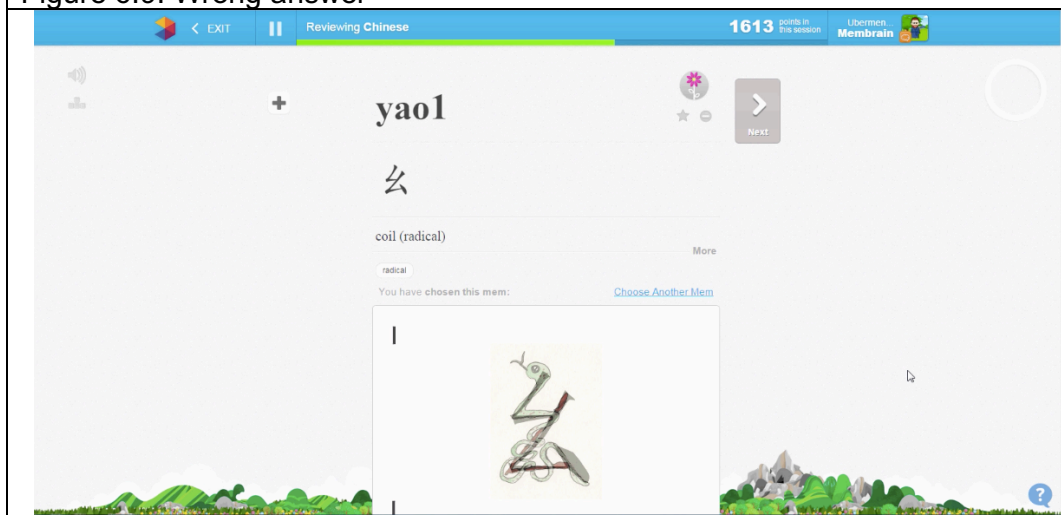
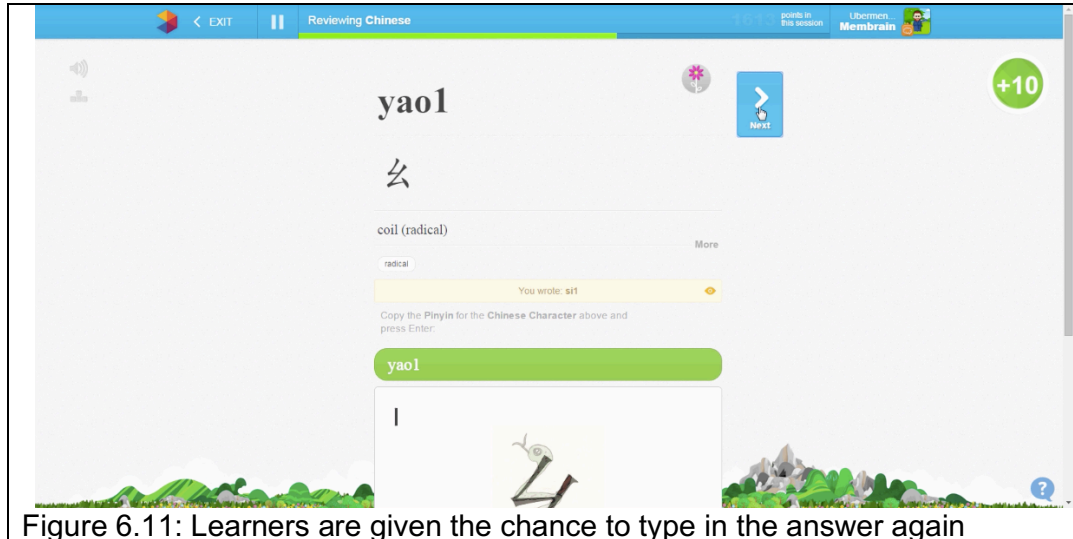


Figure 6.10: Learners is shown the mem that they chose when they first learnt the character



3. Creating mems: the time when learners start typing in a new mem. It is marked by the start of the typing action and ends when the learner clicks 'Save'.
4. Editing/creating lessons: the time when learners input new lexical items, or edit existing lexical items in the Memrise system.
5. Searching for information: the time when learners search for information from external websites such as Google Translate or other online dictionaries. This is usually done within the "learning" time or "mem-creating" time.

#### 6.4.2 Lessons taken by learners

Although all learners were using the same platform, they had the possibility to decide which lesson(s) to take. Table 6.3 shows the lessons taken by each learner.

Table 6.3: Lessons taken by each learner

<b>Learner</b>	<b>Lesson(s) taken</b>
Daniel	<ul style="list-style-type: none"><li>• HSK 4 strategy (a lesson created by himself)</li></ul>
Ella	<ul style="list-style-type: none"><li>• HSK 5</li></ul>
George	<ul style="list-style-type: none"><li>• First 500 characters in Mandarin Chinese</li></ul>
Henry	<ul style="list-style-type: none"><li>• HSK 1 – Introductory Mandarin</li></ul>
Harry	<ul style="list-style-type: none"><li>• HSK 2</li></ul>
Liz	<ul style="list-style-type: none"><li>• HSK 1 – Introductory Mandarin</li></ul>
Neil	<ul style="list-style-type: none"><li>• HSK 1; HSK 3; HSK 5</li></ul>
Valerie	<ul style="list-style-type: none"><li>• HSK 1 – Introductory Mandarin</li><li>• First 500 characters in Mandarin Chinese</li><li>• The New Practical Chinese Reader 1</li></ul>
Vicky	<ul style="list-style-type: none"><li>• 100 Chinese sentences for day to day use</li><li>• Introductory Mandarin (HSK 1)</li><li>• HSK 2</li></ul>
Raymond	<ul style="list-style-type: none"><li>• HSK 3</li></ul>
Helen	<ul style="list-style-type: none"><li>• Introductory Chinese: read a menu</li></ul>

While the possibilities of lessons are endless for learners, it is surprising to see that most of them decided to take lessons based on HSK. When asked about their choice of lessons, the issue of quality comes to the fore:

...those lessons [HSK 1, HSK 3 and HSK 5] are being made by the CEO of Memrise Ben Whateley, and so the courses were of really good quality, 'cause on Memrise you can always find a lot of bad courses or good ones, that one [the HSK lessons created by Ben Whateley] was really particularly good, especially the first HSK 1, 2, 3, 4....(Neil, interview 2)

As the HSK lessons were created by Ben Whateley, one of the CEOs of Memrise, it is the most popular set of courses on Memrise because learners believe that there is quality assurance to these courses, as opposed to the courses created by the general public, which are thought to be less credible in comparison. Also, another reason is that HSK (Hanyu Shuiping Kaoshi) (Chinese Proficiency Test) is an international standardised exam that tests and rates Chinese language proficiency (Confucius Institute Headquarters (Hanban), 2014). This is a highly regarded examination and so learners believe

that the standardised curriculum would mean that the courses are of a higher standard compared to other courses. Besides the HSK courses, the 'First 500 characters in Mandarin Chinese' course also proved to be popular among the learners.

### **6.5 Different uses of Memrise**

As Elton (1988) suggested, in the context of self-directed, distance learning, learners have to use learning methods that differ significantly from traditional education settings. This section further examines how learners used Memrise in different ways. This is informed by semi-structured interviews and email correspondence with participants. These themes were identified by open-coding of interview transcripts and email messages using the NVivo software. The following discussion on how learners use Memrise to advance their own learning goals reveals that they made use of the affordances of the technology to fit learning around their lives.

Analysis of interview transcripts and email correspondences has identified the following themes, each of them is elaborated:

1. Memrise as a vocabulary-learning platform
2. Memrise as a platform to organise learning
3. Memrise as a platform to customise learning
4. Memrise as one of the many resources in Chinese learning
5. Memrise as supplement to classroom learning
6. Memrise as a platform for individual learning
7. Using Memrise as a routine

#### **1) Memrise as a vocabulary-learning platform**

Most participants used Memrise to build up vocabulary through repetition and rote memorisation. They were positive towards this kind of teaching method and they thought that repetition and drilling were the keys to learning Chinese:

The thing I found learning characters is you just have to learn them, and you just have to do it over and over again (Ella, interview 2)

It is intriguing to find that a lot of learners were interested in first building up vocabulary and recognising characters, rather than communicating with 'native

speakers' immediately. As I discuss later on in this section, when participants were using Memrise, they seldom interact with 'native speakers' through the platform; instead, they prefer to communicate with 'native speakers' that they already know in real life. In other words, the access to 'native speakers' friends or family members becomes a resource in their Chinese learning. This is elaborated later in this section. The following quotes are some learners' opinions of using Memrise to learn vocabulary.

Memrise is very good because you have to repeat things so many times, so you go over a lot and a lot and a lot (George, interview 1)

I value Memrise very highly, it helped me greatly with vocabulary (though not with grammar / speaking / listening) (Harry, email correspondence)

I think the main strength is that it [Memrise] is very good for vocabulary drilling (Neil, interview 1)

Contrary to the view that repetition and rote memorisation is passé and old-fashioned, it is nonetheless preferred by participants. This approach is seemingly the pedagogic assumption behind Memrise. On the 'About Us' page, Memrise mentioned the use of "choreographed testing" and "scheduled reminders", both of which are in line with the spaced repetition principle. Nation (2001) reviewed studies done on the effect of spaced repetition on vocabulary learning and acknowledged it as an effective way to reinforce and strengthen new vocabulary items. The timing of the repetition, according to Pimsleur (1967), has to be controlled carefully. He suggested that the initial repetitions have to be closer together, while the later repetitions can be spaced further apart. The positive effect of spaced study of vocabulary is also seen in Kornell's (2009) study on studying vocabulary using flashcards, the difference being that in his study, the amount of time between studying vocabulary is determined by the participants. It is clear that Memrise has incorporated the strategy of spaced repetition into the design of the platform, with the timing carefully controlled. In addition, the focus on building vocabulary as the first step of learning Chinese is in line with the lexical approach which emphasises on teaching the lexis of a language and build up from there. In addition, Memrise states that

Science shows that a large number of such early repetitions and tests have a huge positive influence on the long-term health of a memory, so we've made it so that it takes six successful tests for a new memory to

finish growing. Then that word is then counted as being in your Long Term Memory (Memrise 'About Us' page, 2016)

In most of the language learning literature, rote learning and memorisation are frowned upon as ineffective ways of language learning. However, the matter is not clear-cut. Dahlin and Watkins (2000) challenged the view that rote learning is ineffective. In his comparative study of German and Hong Kong Chinese students, they found that Hong Kong Chinese students who adopted the rote learning strategy were able to engage in both the surface approach (focuses on the sign) and deep approach (focuses on the signified) to learning. Furthermore, Kennedy (2002) proposed that memorisation should be seen as a “prelude to deeper understanding” which can “[enable] the learner to savour and reflect on them later, and, finally, to integrate them with his/her prior learning and experience” (p.433).

## 2) Memrise as a platform to organise learning

Some participants used Memrise as a tool to organise the words that they had learnt elsewhere and stored them all in one place:

I'd say right now my level is kind of around HSK 5, maybe slightly better than HSK 5. But because I studied over quite a long period, and I had numbers of different teachers different textbooks I feel like there's probably quite a lot of gaps in my learning, and so I'm doing the flashcards on Memrise (Ella, interview 1)

... I spend a month in China every summer doing language study, and I got back this year and I wrote out all the words that I learned, and in that month it was like 750 words, and I just thought like I just - I don't know how I'm gonna remember these. I need a system in order to do, kind of word review basically. And then I knew about Memrise...and I just thought well I'll just give it a try (Ella, interview 2)

Ella, a PhD student from the US researching Chinese History at a university in London, spent time learning Chinese in China. On her trips she had learnt a lot of words that she felt she needed a system to organise and record all the words that she had learnt so that she could practice them. This kind of informal language learning from study abroad programmes often result in fragmented, temporary 'encounters' with language which are seen as “transitory” – “bits of language(s) are learned but lose active, practical deployability after some time”

(Blommaert & Backus, 2013:19). It is perhaps in this context that Ella and other participants chose to use Memrise so that they could remain in contact with the language and be exposed to it whenever they wished. The affordances of Memrise makes it fairly easy to import vocabulary to the platform. Learners can import an entire Excel spreadsheet with words and their corresponding meanings directly to Memrise to generate flashcards. Other platforms that I examined, such as Livemocha and ChinesePod, did not offer this affordance. They only allowed learners to follow a structured lesson created 'in-house' or by reputable users who were likely to be language teachers themselves. Those platforms served as gatekeepers to ensure the quality of the content. While this measure ensured that all content on their sites are of good quality, it deprived users of the chance to create their own content according to their interests.

### 3) Memrise as a platform to customise learning

Since most participants used Memrise as a supplement to learning, some of them had made use of the affordances of Memrise and used it creatively to suit their own needs. For instance, Vicky, who was living in China at the time of data collection, needed specific vocabulary to get by, which was not the ordinary vocabulary that people would learn in the first place:

... it's actually funny because I kind of, like lots of things that you would learn at the start of learning a language, like colours, I absolutely never need to know that. But things like loyalty card, and receipt, and you know, VAT receipt and things like that are actually things that people say to me on a normal basis. So I have to learn them (Vicky, interview 2)

Another learner, Daniel, used Memrise to create randomised flashcards from a textbook:

With the book of course you could learn, you could study the vocabulary, but I mean you always have the exact same order...in this book it is only in Chinese so I don't have any translation in there, so that I will have to add manually. And, well it's obviously very rigid, you don't normally study vocabulary from a book, so in the past you use flashcards, and I use other flashcard apps before with this space repetition. I think it's all the same, doesn't really matter if it's Memrise or any other flashcard app for that purpose (Daniel, interview 2)

In response to their own learning needs, both Vicky and Daniel created lessons for themselves on Memrise. For Vicky, based on her need to understand and



say things like “loyalty card” and “receipts”, she created a lesson for herself to revise these specific words. Daniel, on the other hand, made use of the affordances of Memrise to enhance his vocabulary learning experience. He imported the vocabulary in the textbook to Memrise because of the new possibilities available on Memrise that was not available in textbook (this example is discussed in Section 6.6). These two examples show that while Memrise could be the source of knowledge, it could also be used creatively as a tool to learn something that is not on Memrise. In other words, there is a crossover between the online and offline world.

#### 4) Memrise as one of the many resources in Chinese learning

While some participants in the study indicated that Memrise was the only resource they used in their Chinese learning, most expressed that they used Memrise in conjunction with other resources:

...I use Memrise as my main source and my learning is based on it. I use it mainly for HSK vocabulary courses. Other important part is support for textbooks I use. I use Memrise to memorize the vocabulary and then textbooks for grammar (Henry, email correspondence)

...Yeah at the moment I've got a tutor but I use, I just use the, the Memrise for characters, because that's kind of my own study, I don't - I told her I don't really want her to take into characters, just spoken Chinese...Because it's something I can do on my own I think is the characters, it's not, yeah, whereas spoken and listening is more of a one-to-one (George, interview 1)

In the above excerpts, Henry and George all used Memrise alongside other resources. For instance, although Henry based most of his learning on Memrise, it was used specifically for learning HSK vocabulary, and textbook was used specifically for learning grammar. For him, there was a ‘division of labour’ between the use of Memrise and textbook. A similar observation could be made with George, who chose to use Memrise for characters and private tutor for speaking and listening skills. It seems that for both of them, there is a clear boundary between the use of Memrise and other resources about which resource does what. This is an example showing how George can act on the affordances of the tools he had and created a language learning environment

that spans across the use of private tutor and Memrise, two very different learning contexts (see Lai, 2015).

George's interview excerpt also reflects how he took ownership of his learning. The way he described his study on Memrise as his "own study" shows that he felt he was taking ownership of his study on Memrise as it was "something [he] can do on [his] own". In the process, he also seemed to be working towards his own personal autonomy (Benson, 2008). This sense of agency and autonomy is particularly important for learning in online platforms.

#### 5) Memrise as a supplement to classroom learning

While some participants in the study used Memrise as the only source for learning, most of them expressed the view that Memrise was best used to *supplement* classroom learning:

Memrise is a great programme but it doesn't help you speak or read the language because it doesn't do any grammar and, or even reading sentences, and so it's really just for learning words. I think it certainly helped me with my word retention, but I think you have to use it alongside other types of learning (Ella, interview 1)

I think it [Memrise] is a good tool to be used as part of the language learning process. I don't think you could just use Memrise and I don't think that would be a very good way to learn a language at all. I think you need to have a few different, like, avenues of learning a language... (George, interview 2)

If a person used only Memrise they would learn to read well, but wouldn't learn to speak, and would still struggle forming sentences (Vicky, interview 3 [Skype chat])

The fact that Memrise focuses on vocabulary building could be a blessing or a curse. The sole focus on vocabulary means that the teaching of other skills could be made peripheral, as mentioned by the above three comments. While some participants thought that mastering vocabulary was enough, for more serious learners, the narrow focus of Memrise could only act as a supplement to other kinds of learning resources.

#### 6) Memrise as a platform for individual learning

Although Memrise is advertised as a social platform for learning, most participants featured in the study preferred to use it individually without interacting with other users:

I'm not a big social media user in general, and so the social aspects of the site have never been particularly important to me. (Raymond, interview 2)

...it was a sort of explicit decision I don't want to engage with anybody else. It was more just a consequence of the fact that I don't have a lot of time. And so if I'm doing Chinese language learning, which I do for maybe an hour a day, I just want to be doing Chinese language learning. I don't want to be faffing around on the website trying to figure out how to interact with other people. To be honest I don't actually know how one interacts with other people on Memrise, because I just never looked into it (Ella, interview 2)

In the case that participants did interact with other users, they were usually with people that they knew in the real life:

I made my brother use it...he also learns Mandarin...then I made a fellow student use it (Valerie, interview 1)

I haven't used any of the features that let you meet people. The only people who I'm friends with are people I know in real life. Maybe I'm not very motivated to look for people because I have so many opportunities to talk to native speakers anyway (Vicky, interview 3 [Skype chat])

This finding is enlightening because platforms like Memrise often market themselves as a kind of social networking site as they offer the possibility for language learners to interact with 'native speakers' of the target language, which should have been ideal. However, based on observation and interview data, as well as my personal experience of using these platforms, the social component is often over-emphasised, a finding which is also observed by Boyd and Ellison (2008), Stevenson and Liu (2010), Lloyd (2012), and many others. While learning is widely seen as a social activity that requires a lot of interactions (Vygotsky, 1978), and that learning in isolation is not an ideal way to learn a language, some learners, especially the highly motivated ones, do succeed in this kind of self-instructed, isolated learning setting (Rosewell and Libben, 1994).

The access to 'native speakers' in real life seems to be a resource for some participants. I recognise that the term 'native speakers' is a problematic construct, and therefore I am just using it as an umbrella term enclosed in quotation marks to refer to anyone who speaks Mandarin Chinese as their first language. For participants who had 'native' Chinese-speaking family members or friends, it was easier for them to contextualise and design their learning according to their needs. A lot of learning is done through socialisation with these native speakers. The access to 'native speakers' enabled learners to take control of their learning, while those participants without access to native speakers tended to rely on Memrise or textbooks.

#### 7) Using Memrise as a routine

The rise of online platforms such as Memrise that is also available as apps on mobile phones means that learners are less bounded by time and space to engage in language learning. It is much easier to develop a routine now than ever before:

I always do my Chinese first thing in the morning, or maybe one day a week I'm doing Memrise, and then the four other days I use a textbook or read a book in Chinese, and I usually, I suppose probably start by 'watering' the words, doing some revision, and then 'plant' some new ones (Ella, interview 2)

I've let Memrise slipped a little bit. I've been a bit busy and so, I was trying to use it every day, between 15, 5 minutes, sometimes 20 minutes, half an hour a day. I want to try to keep doing it every day. And then the last week or two I've let it slip, so I've got a lot of catching up to do (George, interview 1)

I just do it like every day, both Duolingo [an online language learning platform] and Memrise have these really addicting features where they, like, track your streak, and so it's like, oh wow I can't break my streak... so that keeps me doing those (Liz, interview 1)

I use a time schedule, so I do like 5 minutes every day (Valerie, interview 1)

The comments above shed light on an important feature of mobile learning identified by Pegrum (2014) – “mobile learning should be *episodic*, that is, delivered in brief episodes” (p.10; original emphasis) so that it can be easily integrated into learners' everyday life, enabling them to learn 'on-demand'. In

addition to showing how participants incorporated Memrise into their daily lives, these comments also reflect how ‘effortless’ and addictive it was to learn on Memrise.

After understanding the different ways that the recruited learners made use of Memrise, the following section will focus on one learners’ use of Memrise in greater detail.

### **6.6 Case Study: Daniel**

This section presents a case study of one learner, Daniel. He was chosen to feature in this case study because he was able to combine the resources he had and used them in innovative ways. As mentioned in Section 6.2 of this Chapter, Daniel was a diplomat working in China at the time of the research. Because of the nature of his job, he travelled a lot, and for him, learning occurred not only at home, but while he was travelling as well. As he had been learning Chinese for a considerable period of time, and has a family that is half Chinese, he is very clear about his direction of learning. The figures below are visualisations of the proportion of time that Daniel spent in his learning sessions. The different colours indicate the different ‘activities’ that he engaged in while he was learning.

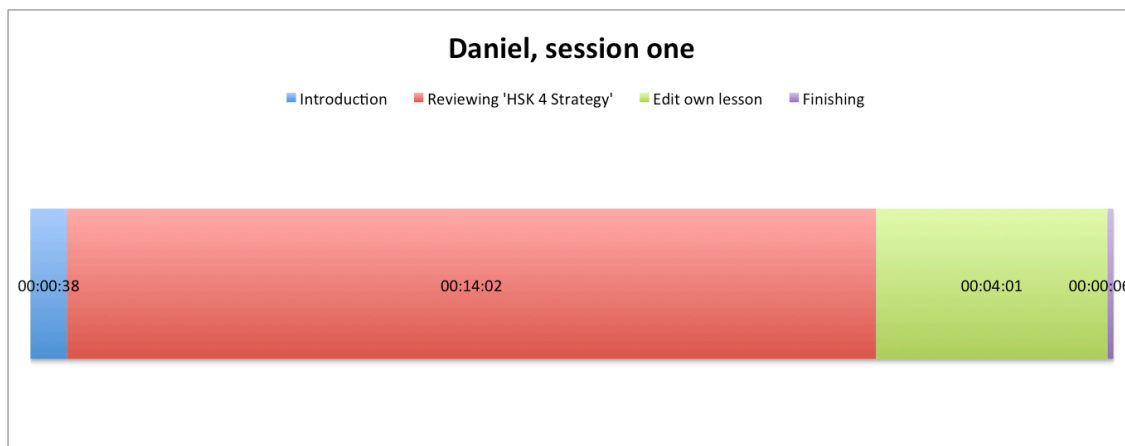


Figure 6.12: Time allocation in learning session 1

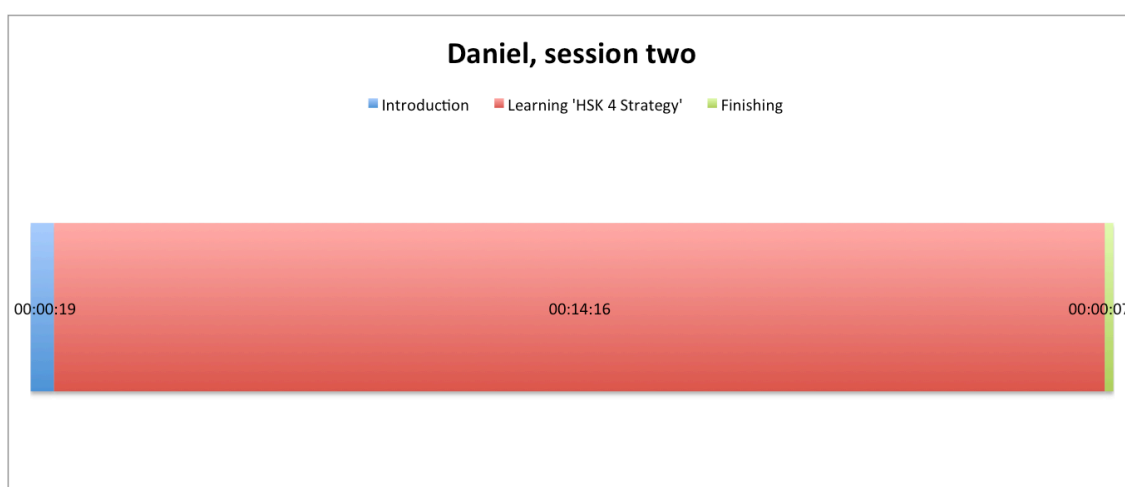


Figure 6.13: Time allocation in learning session 2



Figure 6.14: Time allocation in learning session 3

Throughout the period of data collection Daniel only engaged in one lesson – ‘HSK 4 Strategy’ – a course that he created for himself from a textbook called 新汉语水平考试 HSK 4 级攻略 (New Hanyu Shuiping Kaoshi level 4 strategy).

Instead of spending time doing different lessons, he dedicated a lot of time to focus on one lesson. When asked why he decided to create his own HSK 4 lesson instead of using the ones that were already created, he replied:

I could have even chosen actually just HSK 4, you know, that is a course which is available already, but because the words I'm learning, I probably don't, I probably will not learn all the HSK 4 words, I will only focus on the most important ones according to the book, so that's why I didn't choose the HSK 4 overall class, and also I wanted to have a separation between the different word categories, so that's, in the end, entering it manually for me was the easiest solution (Daniel, interview 2)

It is perhaps worthwhile to look at how Daniel created this lesson. The learning session that he did was based on this page of the above-mentioned textbook. The textbook had already made a selection of the most important vocabulary for HSK 4 (see Figure 6.15). The column on the left shows the target vocabulary, while the column on the right shows example sentences of how this vocabulary can be used in a sentence. There are also some hand-written notes in English for the meaning of specific vocabulary.

道歉	北京的交通状况不好,经常堵车。
堵车	北京的交通状况不好,经常堵车。
翻译	(1)他正在翻译一本英文小说。 (2)她想把这本书翻译成中文。
反对	因为马上就要考试了,所以他反对举行这次比赛。
反映	考试成绩反映了学生平时的学习情况。
访问	王经理正在美国访问。
放弃	(1)她放弃了这次比赛。(2)他放弃了参加考试的机会。
符合	产品一定要符合消费者的要求。
复印	我正在复印一些书/资料。
负责	(1)他负责此次活动。 (2)这次活动由他负责,大家都听他的。
改变	下雨了,他只好改变今天的计划/安排。
感动	大家的帮助让小王非常感动。
购物	女孩子都喜欢逛街购物。
估计	我估计这次考试不会太难。
鼓励	老师鼓励我多跟中国人交流,在她的鼓励下,我进步很快。
鼓掌	大家都在为他的精彩表演鼓掌。
挂	墙上挂着一张画。
逛	学了一天了,我想出去逛逛。
合格	这些产品质量都不合格。
后悔	考试的时候,他很后悔没认真复习。
怀疑	他跟照片上一点儿都不像,老师怀疑他是来替人考试的。
回忆	我经常回忆在北京留学的生活。
获得	他获得了成功/老师的表扬。
积累	经过这几次比赛,他积累了很多经验。 <i>accumulate</i>
集合	明天八点在校门口集合,八点十分准时出发。
寄	我给家里寄了一封信。
继续	最近工作很忙,上周末就没休息,这个周末还要继续加班。
坚持	为了减肥,他每天都坚持跑步,已经坚持了半年了。
交	(1)大家把作业交上去了。(2)他喜欢交朋友。 <i>make friends</i>
交流	我们班同学都挺爱交流,大家经常交流学习经验。
接受	我不能接受他的道歉/条件/要求。
节约	为了保护环境,大家要节约用水/用电/用纸。
解释	老师,您能解释一下这个词的意思吗?我还是不懂。

Figure 6.15: The page of textbook that Daniel used



Chinese	English	Pinyin	Actions
购物	shopping	gou4 wu4	Upload Record 31
估计	to estimate	gu1 ji4	Upload Record 21
鼓励	to encourage	gu3 li4	Upload Record 11
鼓掌	to applaud	gu3 zhang3	Upload Record 11
挂	to hang	gua4	Upload Record 11
逛	to stroll	guang4	Upload Record 11
合格	qualified	he2 ge2	Upload Record 21
后悔	to regret	hou4 hui3	Upload Record 21
怀疑	to doubt	hua2 yi2	Upload Record 11
回忆	to recall	hui2 yi4	Upload Record 11
获得	to obtain	huo4 de2	Upload Record 11
积累	to accumulate	ji1 lei3	Upload Record 11

Figure 6.16: Vocabulary being imported to Memrise

This screen grab shows how the vocabulary in the textbook (enclosed in the square in Figure 6.15) is being imported to Memrise (Figure 6.16). The first column shows the vocabulary, the second column shows the meaning in English, the third column shows the pinyin, and the fourth column allows the possibility to either upload or record an audio file for the pronunciation. The quote below summarises what Daniel did:

I have the book, but I don't have the pinyin, so I don't have the reading [pronunciation]. So what I do is I check the reading [pronunciation] on my phone through micro dictionary, and then I just add it through the Chinese keyboard. And then once I added I just need to add the hanzi [the Chinese character], and then basically the rest of the word would then appear automatically...it's some manual work actually, but it's still much easier than writing them on flashcards (Daniel, interview 2)

When examining the screen recording more closely, it was also found that he organised the Memrise lesson based on the organisation of the book. Before typing in the vocabulary shown on the page, he had already organised the lesson according to grammatical categories: adverbs, verbs, adjectives, instructions and grammar terms, nouns (see Figure 6.17).

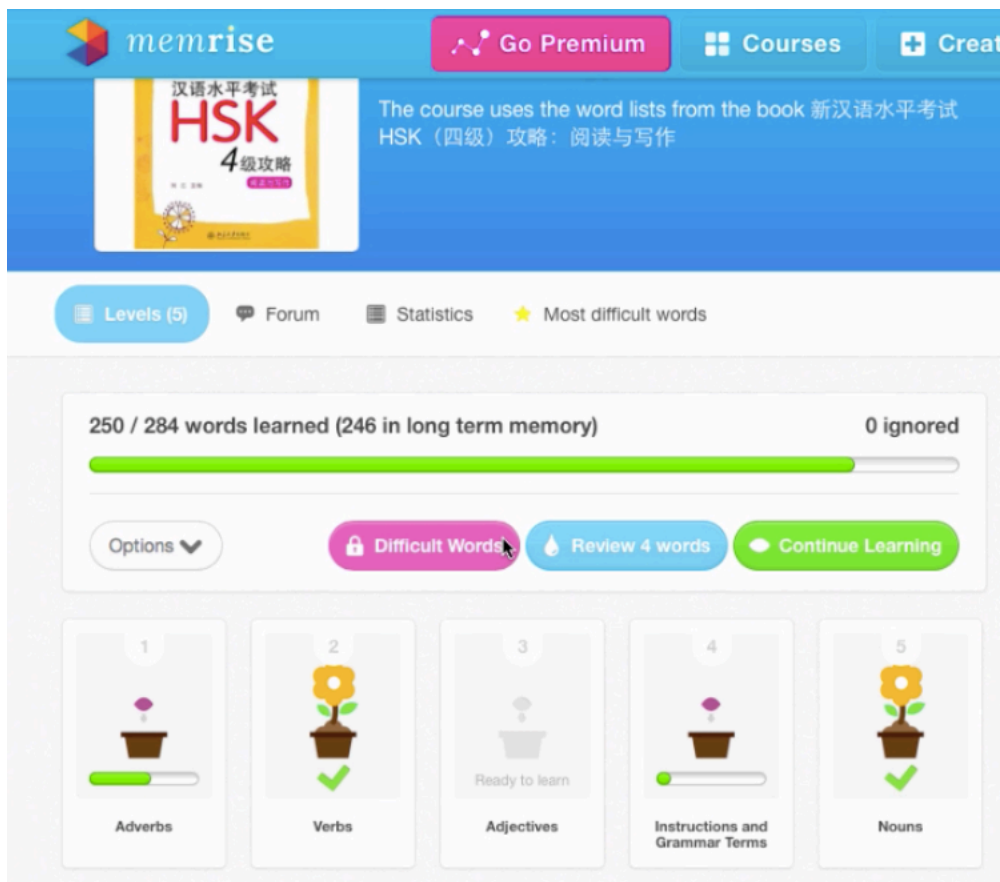


Figure 6.17: The lesson created by Daniel

### 6.6.1 Discussion

It can be seen that Daniel was able to make use of the affordances of both the textbook and Memrise to customise contents for his own use. The book that he used contained some targeted vocabulary that he needed to learn for the HSK 4 test. From the textbook he was able to understand how the vocabulary were being used in context. However, there was no pinyin in the book, so he did not know how to pronounce the words. Importing it to Memrise allowed him to have a complete list of the words with pinyin on the side for easy referencing. Also, on Memrise he was able to get access to the English definition of the words, which was not present in the textbook. Most importantly, Memrise allowed Daniel to listen to the audio recording of the words, which was not possible if he was only studying from the textbook. Daniel also explained in his own words how he made use of the affordances of Memrise:

Well, I mean with the book of course you could learn, you could study the vocabulary, but I mean you always have the exact same order...in this book it is only in Chinese so I don't have any translation in there, so that I will have to add manually. And, well it's obviously very rigid, you don't normally study vocabulary from a book, so in the past you use flashcards...the main argument for using Memrise is probably, it's possibilities to have mems. And it is, I mean it's visually quite appealing...and I can I use it web-based and I use it on my phone...And of course, I mean, with the book you, I mean here with Memrise you learn it two ways, so you study first the reading and the meaning, and do it the other way round (Daniel, interview 2)

The table below summarises the affordances provided by the textbook and Memrise.

Table 6.4: Comparison of the affordances provided by textbook and Memrise

<b>Affordances of the textbook</b>	<b>Affordances of Memrise</b>
Chinese characters	Chinese characters
Example sentences – understand how vocabulary is used in context	Pinyin
Handwritten notes	Definition
Targeted list of HSK 4 vocabulary	Audio
	Mems (characters + image)
	Flashcards appear in random order
	Mobile

Daniel clearly understood the affordances of the two resources, and he was able to act on the affordances of the two contexts “to create complementary and synergetic learning experiences across the two” (Lai, 2015). This is clearly a case of technology providing increased affordances for autonomous, learner-centred learning, which is not always capitalised on (Reinders and White, 2011). However, in the case of Daniel, he has made full use of the affordances provided by the two resources, and was able to combine them in innovative ways to create new resources that were more useful to him. White (2008) argued that this kind of independent language learning “reflects a move towards more learner-centred approaches viewing learners as individuals with needs and rights, who can develop and exercise responsibility for their learning” (p.3). Indeed, as seen from Daniel’s example, although he has access to ‘native-speakers’, independent learning still plays a big role in his Chinese learning. For Daniel, learning Chinese goes far beyond the mere acquisition of vocabulary and the language per se. As mentioned in Section 6.2, Daniel was living and working in China, and he has familial ties with Chinese speakers. Taking a

closer look, it seems that he valued his Chinese learning because it has the potential to help him develop his “sense of self as a fully competent person” (Benson, 2002:28) in the context of his life as a person living and working in China. This is similar to Benson’s (2002) account of his experience of learning Cantonese when he lived and worked in Hong Kong.

## **6.7 Summary**

To summarise, this chapter began by presenting the personal histories of the 11 learners that I followed in the study based on the information obtained from email correspondents and semi-structured interviews. The learners are from different parts of the world, and they all have different experiences in terms of language learning. From these histories I went on to explain how learners draw on the resources that they have in their repertoires to facilitate Chinese learning. As Otheguy, García and Reid (2015) explained, translanguaging refers to the act of “deploying all of the speaker’s lexical and structural resources freely” (p.297). It could be seen that these 11 multilingual learners all have the potential to use translanguaging as a way to help them learn Chinese. The chapter concluded with a case study of how one learner, Daniel, made use of the affordances of the textbook and Memrise to learn Chinese in an innovative way. In the next chapter, two case studies are presented to show how learners use translanguaging as a scaffold to learn Chinese characters.

## **Chapter Seven: Learning to read Chinese characters**

### **7.1 Chapter synopsis**

Having examined the resources that learners used to learn Chinese the previous chapter, in Chapters Seven and Eight respectively I focus on two specific learning practices, namely learning to read and learning to write Chinese characters. This chapter presents two case studies of how learners use translanguaging to learn to read Chinese characters by means of creating multimodal texts. Alongside this I examine the general principles underlying the creation of these multimodal texts which highlights the complexity of the semiotic work that learners have to put in when they learn Chinese in Memrise. These two case studies feature how learners interact with the content in Memrise, and how they create their own learning material – a multimodal text called a ‘mem’. By conducting a detailed analysis of the mems that they created, I bring to the fore how translanguaging is used as a process to scaffold the learning of Chinese characters using the learners’ full linguistic and semiotic repertoires.

### **7.2 Learning to read Chinese characters**

The data in this chapter focuses on how two learners used Memrise to learn a character and a phrase. Two of them created mems, a multimodal text created by Chinese learners and teachers that are subsequently shared in the learning community to help them unpack Chinese characters they have difficulty with. Put it simply, Chinese characters are made up of radicals, which are the smallest meaningful unit, like morphemes in English. In order to read characters, learners have to master the association of sound, meaning and form of each character. Xing (2006) agreed that learning Chinese characters is one of the most challenging tasks for a Chinese learner, and how to teach it effectively perplexes a lot of teachers. Very often, language learning requires learners to make educated guesses. However, in the case of Chinese, it is not as easy. Learners of Chinese cannot guess the pronunciation of a character unless the character contains a phonetic radical, given that the learner has learnt about it. In a similar fashion, learners of Chinese cannot guess the meaning of a character unless the character contains a semantic radical that

the learner knows. Nevertheless, most researchers agree that “character teaching and learning should start from the understanding of the structure of characters and its relationship to sound and meaning” (p.106), although there is no consensus on how it should be taught in practical terms. For a more detailed explanation of the composition of Chinese characters, please refer to Chapter Two of the thesis.

From the above discussion, it can be seen that learning to read characters is challenging for the learners who are accustomed to an alphabet-based writing system that is more ‘transparent’. Learning to read Chinese characters in a self-directed setting requires them to look for association between sound, meaning and form by themselves. In the next section, two case studies are presented to illustrate how learners found creative ways to help themselves to learn to read Chinese characters.

### **7.3 The two case studies**

This chapter is made up of two case studies, featuring George and Neil. These two learners were selected because they created mems that went beyond the boundaries of language, and across writing systems. As mentioned before, radicals are the smallest meaningful unit that make up Chinese characters. Without basic knowledge of radicals, it is very difficult to understand a character. As these mems serve a pedagogical purpose, the creators, George and Neil, cannot assume that learners have any knowledge of radicals. Therefore, creating a mem about Chinese characters is challenging in the sense that the creators have to select apt resources to demonstrate the relationship between sound, meaning and form of the character, very often in relation to another language, most likely English. In order to do this, creators have to show a high level of linguistic creativity to make connections between two or more seemingly unrelated languages.

## 7.4 Resources for creating mems

In order to understand the creation of these multimodal texts, we have to examine what resources are available for the sign-makers to make meaning, and what are the affordances of these resources.

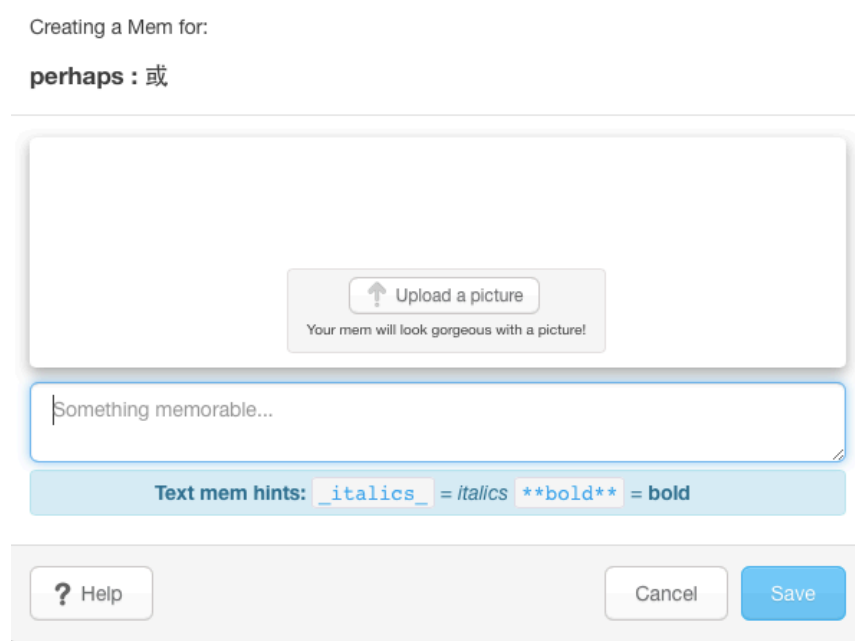


Figure 7.1: Tools for creating mems

Figure 7.1 shows a screen grab of the window for creating mems. This tool allows sign-makers, which could be a learner or a teacher, to make use of both linguistic and semiotic resources in their repertoires to make meaning. In terms of linguistic resources, it allows learners to use whatever languages and script systems that they know, as long as they can type it with a keyboard. The following semiotic resources are available: image, writing, italics, bold, and of course, the ability to type in capital and small letters, as well as the use of punctuation marks. As seen from the mems that George and Neil created, although they are for language learning, these semiotic resources played an important role in making certain aspects of the mems salient, and others less so. From a translanguaging point of view, it could be said that this provided a “translanguaging space” – “a space for the act of translanguaging as well as a space created through translanguaging” (Li Wei, 2011a:1223).

After understanding what resources are available for learners, and the affordances of these resources, we will now turn to examine the mems created by two learners, George and Neil, in greater detail.

### 7.5 Case Study: George

As mentioned in Chapter Six, George was an English teacher in China. He had experience in creating mems for people to learn Chinese, so this was not his first mem. In the video captured during his usual Memrise session, he was revising the vocabulary from a lesson called 'First 500 characters in Mandarin Chinese', in which he had 410 words to review. In the review session, one of the words that came up was '或' (perhaps). In the space provided, he typed the definition, which was 'perhaps', but realised it was actually asking for pinyin. At that point he had difficulty remembering the pronunciation of the word 或 (huo4). Note that 'huo4' is a non-standard convention. 'Huò' is the standard way to represent the fourth tone. However, as all tones are represented by numbers in Memrise, and it was how the learners used it, for the sake of keeping the data authentic and to avoid confusion, this chapter uses numbers instead of the standard symbols to represent the tones.

The video shows him creating a mem. A mem is a multimodal text because it affords the possibility for sign-makers to make use of a range of semiotic resources, for instance, writing, image, moving image to make new meaning for a Chinese character. However, George chose to use writing as the dominant mode to create this text. From the perspective of social semiotics, all signs are motivated. It can be said that in this situation, George perceives writing as the most apt mode to represent the character that he would like to learn.

Before creating his own mem, George had been looking at the mems created by other users on the same character. He had already chosen one of these mems in his previous learning session. Although George had already chosen a mem created by another user, he was not entirely satisfied with it because it only reminded him of the meaning and form of the word, but not the pronunciation, and so he set out creating one of his own that would remind him of the pronunciation of the word.



This is the content he wanted to learn and remember:



Figure 7.2: The original pedagogic material (perhaps)

In the mem created by another user, the one that he chose previously, it says:

For tough ones like this, I've been finding I like ridiculous quick phrases I can repeat a few times until they get stuck in my head:

PERHAPS there is a LANCE in my MOUTH! (oh my)

In the new mem George created, it says:

PERHAPS there's a LANCE in my MOUTH!  
The LANCE hurts like FIRE, 火 (huo3) but is quick (4<sup>th</sup> tone)

To understand how this idea came about, and the principle of composition that he had in mind, we have to look at what he said before he actually typed out the mem.

Yeah to me, that looks like the side of wo3(我), I'm not sure if it is, but it looks like the side of wo3(我), and then that dash, the dian3(点) dash, and then the kou3(口). I don't know what that looks like. But obviously that's the mouth. 'Perhaps'.

Obviously that's the lance that is on the side of wo3 (我), I, I don't know how to remember this, is 'perhaps'.

Because there's just no logical connection for me. "Perhaps there is a lance in my mouth". I knew that was lance, I'll probably get that bit, but how to make it huo4(或). huo4(或). I know fire is huo3(火), so maybe I can think of a lance in the mouth would be very painful like fire? And quick like the fourth tone?

Yeah it makes some sort of logical sense. I'm gonna, I'm gonna, so what I'm going to do, "perhaps there's a lance in my mouth", I'm gonna, this is how I make the mem, so I'm actually gonna make that. "Perhaps there's a lance in my mouth". I'll make the mem. "Choose another mem"  
(George, Memrise session 1)

The above extract was recorded when he was thinking aloud while he was creating the mem. However, from a methodological point of view, this transcript did not provide a holistic picture of what he was doing, because the extract was transcribed only in terms of spoken form, which was only a partial representation what he was doing at that moment. It illustrates clearly that a multimodal transcript is needed to understand what he was referring to. Just focusing on the language can only give us limited insight, especially for people who do not understand Chinese.

#### *7.5.1 The multimodal transcript*

The multimodal transcript in Table 7.1 helps us unpack what goes beyond his commentary in the spoken form. At the beginning it seems that he was stuck on this abstract character, as demonstrated by his silence, his intense gaze at the character, and his hands holding his head and rubbing his face. These are all signs showing that he was thinking of a way to understand the character from the form, the way it could be separated into its constituents (i.e. the radicals), and also the pronunciation. He then made use of his knowledge of individual radicals to create an imaginary 'story' that made sense to him, which could potentially be representative of the form of the character. He then, again, made use of his knowledge to search for a character that has a similar pronunciation as the target character he wished to learn. In order to create this sign, he has to know the following:

- 1) he has to identify the different components in the character in order to tease them apart and assign meaning to each part,
- 2) he has to identify another character which has similar pronunciation as the target character he wishes to learn, and
- 3) he has to find a way to link these few pieces of information together into a coherent narrative.

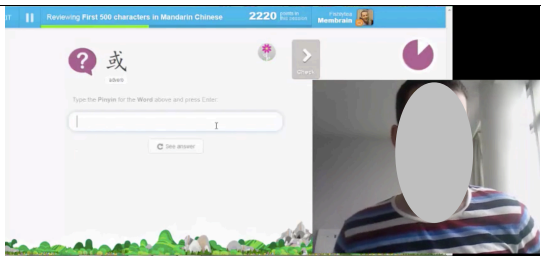
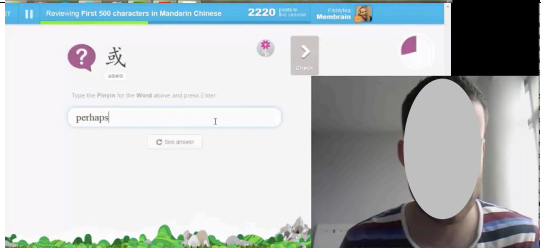
In the process, he was drawing on multiple resources. In terms of meaning, his knowledge of the meaning of 或 (huo4) (perhaps) is essential and it sets the first step. In terms of form, he needed to understand the meaning of 戈 (ge1) (lance), the meaning of 口 (kou3) (mouth), in addition to his understanding that these are the building blocks and that not all parts are meaningful (i.e. the 'dash' in the character has no special meaning). In terms of pronunciation, he thought of the character 火 (huo3) from his own knowledge which has a similar pronunciation to 或 (huo4). He also realised that they are not exactly the same in terms of tones, so as a corrective measure, he added "but is quick" to show that they are not the same. We know these are happening because of his commentary and the signs that he created. From there we can deduce what kind of knowledge he has to possess in order to create this sign. The last step, which is the most demanding step, is visible to us, which is the linking of these pieces of information to form a coherent narrative, his 'story' of the character. Without a multimodal transcript to help us unpack all these behind the scene goings-on, the spoken data and the mem would not provide sufficient detail for a thorough analysis.

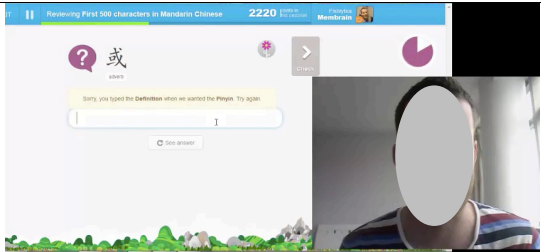
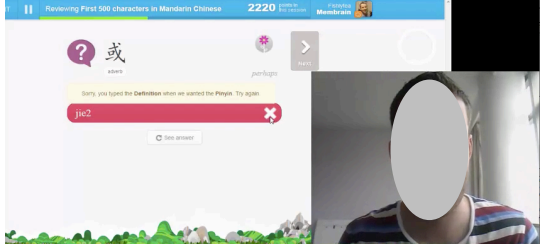
A transcript with four columns is designed to represent four different modes. From left to right, the first column shows speech: what George was saying during the recording. It also shows cursor movement in relation to the words that were spoken when the cursor movement occurred. The second column shows the screen that George was looking at, together with an image of his face looking at his own screen. The third column shows the typing that George did. The last column shows his facial expression and other relevant happenings during the recording. I have used the following transcription key for all the multimodal transcripts in this thesis:

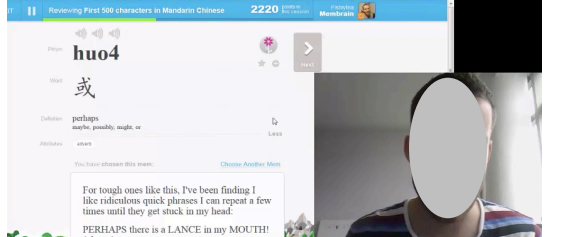
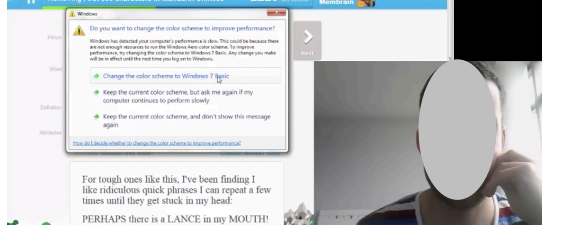
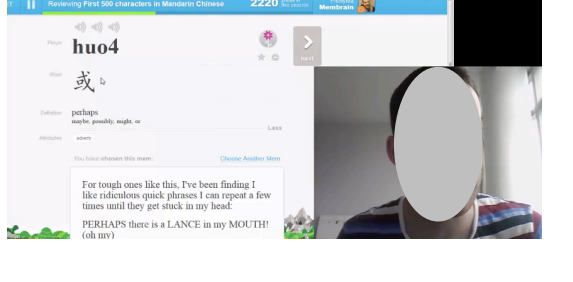
(.)	A brief pause
(2)	A pause of approximately 2 seconds
[huo4]	Pinyin symbol and tone of the Chinese character being spoken
(inaudible)	What was said is unclear to the researcher
(cursor hovering above it)	Cursor movement captured on screen

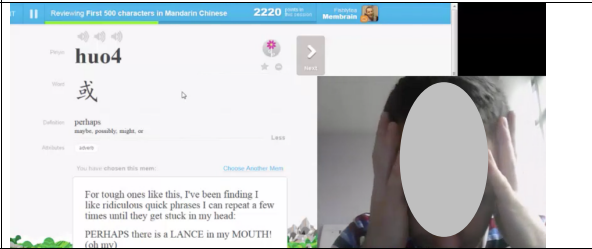
\*Note that the Pinyin symbol used in this transcript is a non-standardised convention with tones marked in numerical used by Memrise as well as the participant. The same convention is used throughout the paper to avoid confusion. The standard pinyin transcription should be [huò].

**Table 7.2: Multimodal Transcript of George**

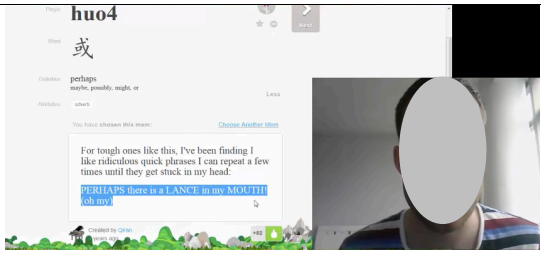
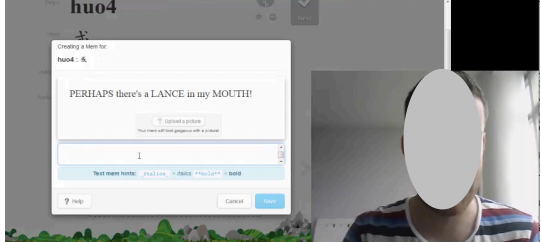
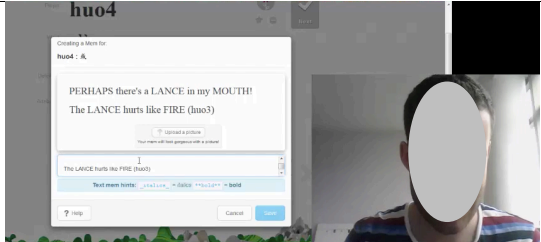
Speech and cursor movement	Screenshot	Typing	Facial expressions and other relevant happenings
			Staring at the screen intently. Body leaning close to the screen.
Now, the only reason I'm writing (2) 'perhaps' is because it says adverb underneath, and		perhaps	Uncertain whether it is 'perhaps' or not. The pause before uttering the word 'perhaps', the uncertain gaze of his eyes, and the rising tone.
Silent for 4 seconds			

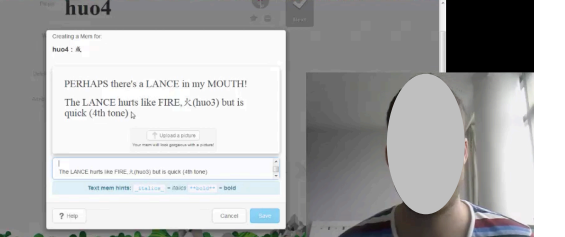
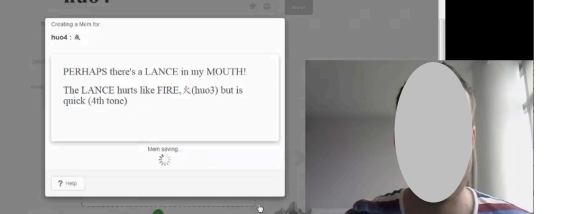
<p>Oh it is, it is 'perhaps'. I wanted the pinyin (.) oh they want the pinyin. So I know that the 'perhaps' one, but that's because it's literally saying adverb (<i>circling around the word</i>) to me, and I wouldn't have guessed it otherwise. I just know this, I've done the adverb 'perhaps', I don't know what the def - the pinyin is. It could be jie2 (<i>G presses enter, but the platform responds with "Sorry, you typed the Definition when we wanted the Pinyin. Try again"</i>)</p>			
<p>或[huo4] (.) 或[huo4] (.) 或[huo4] (.) And you can see I've chosen the mem* "PERHAPS there is a LANCE in my MOUTH! (oh my)" (<i>hovering above it</i>). It doesn't really help me at all, oh my (G types 'jie2' but it is wrong, the computer pronounces 或 [huo4])</p> <p>*mem is the term used by Memrise to refer to a meme.</p>		jie2	

<p>Perhaps there's a lance in my mouth (.) 或[huo4] (.) perhaps (.) perhaps</p>			
			<p>Technical issues</p>
<p>或[huo4] 或[huo4] 或[huo4]</p>			<p>Pronouncing the character in a slightly exaggerated way</p>
<p>Yeah to me, that looks like the side of 我[wo3] (<i>hovering above the 戈 radical</i>), I'm not sure if it is, but it looks like the side of 我[wo3], and then that dash (<i>hovering above it</i>), the 点 dash, and then the 口[kou3] (<i>hovering above it</i>) (2). I don't know what that look like. But obviously that's the mouth. 'Perhaps' (<i>hovering above the character and the definition</i>).</p>			

<p>Obviously that's the lance that is on the side of 我[wo3] (<i>hovering above the 戈 radical</i>). I, I don't know how to remember this, is 'perhaps'.</p>			
	 <p>The screenshot shows a mobile app interface for learning Chinese characters. The character '或' (huo4) is displayed with its pinyin and a radical breakdown. Below it, there is a video of a person with their face obscured by a white oval, holding their hands to the top of their head. The app also shows a list of related characters and a note about finding quick phrases for tough cases.</p>		<p>Looking a bit distressed. Hands holding the top of the head, rubbing his face</p>
<p>Because there's just no logical connection for me. "Perhaps there is a lance in my mouth". I knew that was lance, I'll probably get that bit (<i>hover above it</i>), but how to make it 或[huo4](.) 或[huo4](.) I know fire is 火[huo3], so maybe I can think of (.) a lance in the mouth would be very painful like fire? (4) And quick like the fourth tone?</p>			<p>Thinking-aloud the ideas in his mind. Rising intonation indicates uncertainty</p>
<p><i>Silent for 10 seconds</i></p>			



<p>Yeah it makes some sort of logical sense. I'm gonna, I'm gonna, so what I'm going to do, "perhaps there's a lance in my mouth" (<i>highlighting the sentence</i>), I'm gonna, this is how I make the mem, so I'm actually gonna make that. "Perhaps there's a lance in my mouth". I'll make the mem. "Choose another mem"</p>			
<p>So I'm gonna steal the "perhaps there's a lance in my mouth"</p>			
<p>Perhaps there's a lance in my mouth</p>		<p>PERHAPS there's a LANCE in my MOUTH!</p>	
<p>Because I might be able to remember that (.) And then</p>			
<p>For the (.) for the pronunciation (3), so (.) the lance (6) hurts (2) like (2) fire (2), which is (2) 火 [huo3]. I am getting 火 [huo3] right, it's fire (<i>inaudible</i>)</p>		<p>The LANCE hurts like FIRE 火 (huo3)</p>	

<p>The lance hurts like fire, 火[huo3] but is quick (8) 4<sup>th</sup> tone (2) 或 [huo4]</p>		<p>but is quick (4<sup>th</sup> tone)</p>	
<p>Perhaps there's a lance in my mouth (.) I stole that (.) The lance hurts like FIRE, 火[huo3] (7) but is quick</p>			
<p><i>Silent for 6 seconds</i></p>			
<p>Perhaps there's a lance in my mouth. See I might remember fire now when I look at this character, which is (<i>inaudible</i>)</p>			
<p>Let's just make that (G presses "Save")</p>			

From the transcription it can be seen that George was simultaneously engaged in different levels of awareness. Some modes are foregrounded, and some are backgrounded. George is seen moving back and forth between what Norris called the “modal density foreground-background continuum” (Norris, 2004a). It demonstrates the fluidity of the interaction between George and the platform. At the beginning, speaking has the highest modal density compared to other modes, and it is the higher-level action to foreground. Just before he starts typing, the modal density shifted from speaking to facial expressions, and speaking is put in the background temporarily. Once he starts typing the mem, there is an increase in modal density in typing, even though speaking is still the dominant mode. This model helps me to focus on the relevant higher-level actions that occur simultaneously.

#### *7.5.1 Discussion: Using a translanguaging lens*

Using a translanguaging lens to analyse this text requires me to go beyond languages to look at the semiotic components which make up this text. More importantly, on how the different modes work together and make meaning.

First of all, we start with the capitalised English words. “PERHAPS” is the meaning of the character 或 (huo4). “LANCE” refers to the meaning/shape of the 戈 (ge1) component in 或 (huo4). “MOUTH” refers to the meaning/shape of the kou3(口) component in huo4(或). The remaining words “there’s”, “a”, “in”, “my” are linking words to connect the three pieces of essential information together in a grammatical way. As explained by George, this part is the same as the mem he previously used to unpack this character, so it is not something he created. Nevertheless, he kept this in his new mem as he thought that it would be the best way to help him understand the components in this character. Specifically, in the interview he said “I stole that 'cause I thought it's something I probably be able to draw my memory by seeing that picture” (George, interview 2). This is a kind of semiotic work that he did. He made the decision as an agentive individual to re-use that sentence in his own mem. In other words, it is a motivated sign.

Moving on to the second sentence, “LANCE” refers back to the same word used in the first sentence, as signified by the use of definite article “the”. It still holds the reference of the meaning/shape of the 戈 (ge1) component in 或 (huo4) but less explicit. Here it refers to the shape/form of the lance, which is a long weapon. “FIRE” is the meaning of 火 (huo3), which is a word which shares a similar pronunciation to 或 (huo4), the only difference being the tone (火 (huo3) is third tone and 或 (huo4) is fourth tone). While he was constructing the mem, he kept repeating the word 或 (huo4), in a slightly exaggerated way, which shows that he was fully engaged with it by vocalising the word to get a feeling of what it sounds like. In this process, he was selecting apt resources to help him remember the pronunciation of it by mentally searching for another word that shares a similar pronunciation, which is 火 (huo3). He used “quick” to describe this tonal difference because a fourth tone ‘sounds quicker’ than a third tone, and being hurt by a lance is a faster process than being hurt by fire (George, interview 2). The remaining words “hurts”, “like”, “but”, “is” are linking words which connects the key pieces of information together to form a coherent narrative. George had obviously selected these different pieces of linguistic resources from his repertoire which he considered as an apt way to help him remember the three components of the character: form, meaning and pronunciation. This selection is not arbitrary. It is a motivated selection which involves a lot of semiotic work on his part to make association between sound, meaning and form.

Here it can be seen that he is languaging, or whole-body sense-making, according to Thibault (2011, 2017). From this short learning episode, it is clear that he is constantly talking to himself, thinking aloud; he is looking, reading, moving the mouse; he is typing; he is reading the picture/image/sign and imagining other pictures/images/signs in order to create his own sign; and he is trying out the pronunciation or trying to memorise the pronunciation and linking the pronunciation with the image/sign and making connections across meaning, sound and image. These events occurred in orchestration, which can be seen as “pico-scale bodily events” – “synchronized interindividual bodily dynamics on very short, rapid timescales” (Thibault, 2011:214). This is an example of how the here-and-now first-order languaging initiated the emergence of the second-


order language, the word “FIRE” and 火 (huo3) in this case. This is also an example in support of the Distributed Language view that which sees languaging as a heterogeneous phenomenon that is distributed between the brain, the body, the social, cultural, and physical world (Thibault, 2011). Although the interaction featured here is one of human-computer interaction, it can still be seen that the character shown on the screen has initiated George’s whole-body sense-making, and subsequently the second-order language.

Moving the discussion to another level, it can be seen that the learner, through his selection and display of attention to the original pedagogic material, transformed it to a different form and assigned it different functions (see Table 7.2). For instance, ‘perhaps’ is the meaning of the target character. In the original pedagogic material it appeared as ‘perhaps’ whereas in the mem it appeared as ‘PERHAPS’. The capitalisation is a motivated attempt by the learner to highlight it in the sentence, as in the sentence it took on the role of an adverb, which grammatically speaking does not carry much meaning in a sentence like this. Capitalisation is therefore being used to give salience to a word which would have been overlooked had there been no capitalisation or other semiotic tools to highlight it.

In the original pedagogic material, 或 is the target character shown as a written form in Chinese. In the mem it is represented by the learner as ‘LANCE’ and ‘MOUTH’ which highlights his attention to the two main components which make up 或 (口 and 戈). Although both of them are used as a noun in the mem, the capitalisation makes them salient and it assigns more meaning to them as a result. Moreover, they are represented by English instead of Chinese. The choice of using English over Chinese in this situation is also another motivated selection, for in this part of the text the focus is on the visual form of lance and mouth in real life, and the irrationality of having a lance in someone’s mouth can evoke emotions of shock. It is easier to register for Chinese learners if it is shown in English. It would have lost its emotional appeal if it was shown in Chinese.

As for the pronunciation, 'huo4' appears in the original pedagogic material, together with an audio recording on activation, to demonstrate how the target character is pronounced. In the mem, the learner selected three resources to represent the pronunciation, which are 'FIRE', the meaning of '火' with a pronunciation of huo3, only a difference in tone with the pronunciation of the target character huo4(或). The transformations that happened in the process can be summarised in Table 7.2.

Table 7.2: A comparison between the original pedagogic material and the newly-created material

Reviewing First 500 characters in Mandarin Chinese	Original pedagogic material	Function in original pedagogic material	Language in original pedagogic material	Representation in mem	Function in mem	Language in mem
	perhaps	Meaning	English	PERHAPS	Adverb	English
	或	Written form	Chinese	LANCE MOUTH	Noun	English
	huo4 (and recording on activation)	Spoken form (pronunciation)	Chinese in English convention	FIRE 火	Noun Written form of FIRE	English Chinese
	<p>PERHAPS there's a LANCE in my MOUTH! The LANCE hurts like FIRE, 火 (huo3) but is quick (4th tone)</p>			huo3	Spoken form of FIRE	Chinese in English convention

To sum up, the above example problematises the concept of 'mode'. In this example meaning is moved across 'languages' (English and Chinese), across script systems (alphabets, characters, pinyin). Although in the language of social semiotics, this shift in meaning occurs within the same mode, i.e. writing, the meaning it carries and creates has transcended the boundary of mode in a social semiotic sense. Further research has to be done in this area to identify more suitable categories to describe this kind of shift in meaning.

This mem also shows the complex interplay between the aspects of the target language (meaning, form, pronunciation) and George's existing knowledge. It is a motivated and strategic selection of resources available to him. 'Perhaps', which is originally related to the meaning of the target character, is being turned into an adverb in the new sign, at the same time retaining its representation as the meaning of the word by being capitalised; what appears to be related in terms of form (e.g. 戈(ge1) and lance) is turned into a noun in a sentence, becoming an object which can act on another object.

In this mem, George drew on resources from his linguistic and semiotic repertoire to help him scaffold his learning of the character. Firstly, in terms of linguistic resources, he used Chinese (written), Chinese (spoken), Chinese (pinyin), English (written), English (spoken), and tones to construct this mem. In terms of semiotic resources, he used the mem created by another user, and his knowledge of the conventions of creating mems to help him create this multimodal text. Specifically, he used resources such as capitalisation to highlight the salient part of the text, and used brackets to indicate tones. Using a translanguaging lens helps me to expand the discussion to a level beyond language and take into account all the semiotic resources used, which would have been missed otherwise. This example shows how he drew connections between linguistic forms (English letters, Chinese characters, pinyin) and explicate this connection in the form of a mem, a multimodal text, which can be shared with other learners of Chinese. Contrary to code-switching which is language-focused, the discussion above is learner-focused, as the emphasis is on how the learner draw on resources from his repertoire to create the text.



After examining other mems created by George, and mems created by other members in Memrise, some general principles can be identified:

- Meaning: meaning of word x in Chinese (e.g. 或) **'is like'** meaning of word y in English (e.g. 'perhaps')
- Written form: character (e.g. 或) **'is like'** shape of objects named in English (e.g. lance, mouth)
- Spoken form: pronunciation of word x (e.g. 或) **'is like'** pronunciation of word y in Chinese (e.g. 火)
- Capitalising words which are related to the target character
- Including meaning, the written form, and the spoken form (pronunciation) in the meme

The next section shows how another learner, Neil, created a mem, this time using a different set of resources.

### 7.6 Case Study: Neil

Neil is a 30 year-old Belgian working in South Korea at the time of data collection. His first language is French, but he also speaks Dutch as he was growing up. In addition to this, he had learned English mostly at school, and he had also learned Spanish from a platform called Duolingo while he worked in Spain. At the time of the research, he was working as a researcher in South Korea, in the field of Computational Physics, and he had learned Korean using Memrise. He has experience in creating mems to help people learn Korean and Chinese, so this is not his first mem. In the video Neil was learning new words from Level 52 of the lesson 'HSK level 5'. HSK, also known as 汉语水平考试 Hanyu Shuiping Kaoshi, is a standardized test for Chinese as a foreign language. It has 6 levels, with level 1 for beginners and level 6 for the advanced. He made clear in the recording that the lesson was focused on pronunciation (but was later changed to a focus on the written form). 下载 was one of the lexical items that came up.

This is the content he wanted to learn and remember:

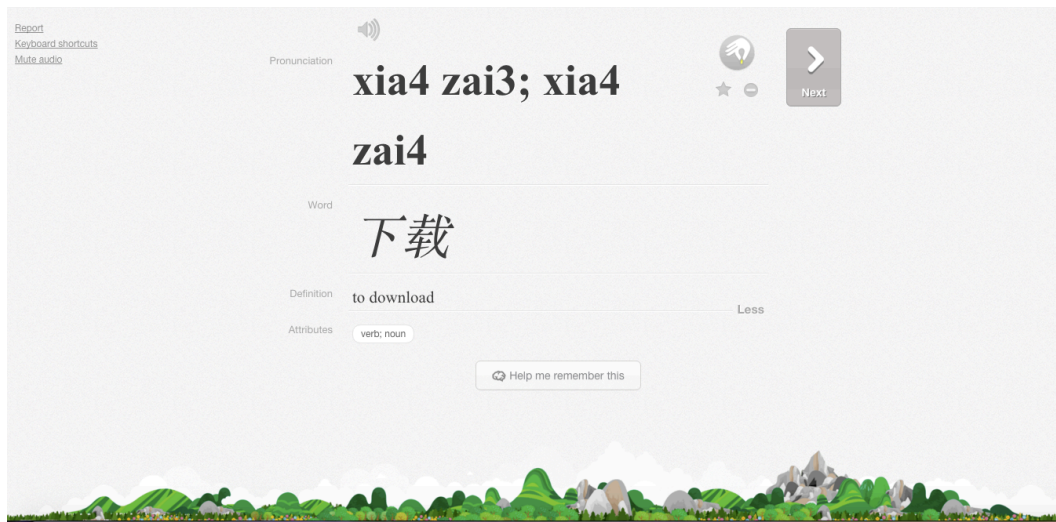


Figure 7.3: The original pedagogic material (to download)

As the lesson was pronunciation-focused, the pinyin, which represents the pronunciation, is placed on top of the page, with the same font size as the Chinese character shown below which gives salience to the pinyin. In contrast, this is not seen in George’s learning material (see Figure 7.2). Similar to George, before setting out to create his own mem, Neil looked at mems made by other users. Here are two mems that he looked at:

Mem 1:

我需要下载新的软件 (wo3 xu1 yao4 xia4 zai3 xin1 de ruan2 jian4). I need to download the new software.

Mem 2:

载 also means TO LOAD, as in TO LOAD a car (hence the car radical 车). 下 means DOWN. So it’s no wonder that 下载 means TO DOWNLOAD.

The mem created by a user called “Wobby” (Mem 2) caught his attention. From his experience of using Memrise he knew that “Wobby” always made mems that were helpful to him, so based on Wobby’s mem, he added the components that he felt were missing, which was the part about the “halberd” (戈). As 下载 is a commonly used lexical item in Chinese, he had no difficulty remembering the

meaning of it; what he wanted to focus on was the written form, especially of the character 载, which is a complicated character composed of three different radicals: 土, 车 and 戈.

To serve this purpose, he created this mem:

载: to LOAD. You LOAD the CAR with EARTH. The DAGGER is there to remind you you have to use some tool to do that.

Before creating the mem, Neil verbalised his guesses about what the phrase means. In other words, he was solving this problem through languaging, which is “the process of making meaning and shaping knowledge and experience through language” (Swain, 2006:98). The following multimodal transcript is able to shed light on how he used different internal and external resources to help him create the mem.

#### 7.6.1 *The multimodal transcript*

From the multimodal transcript in Table 7.3 we can tell how thorough and meticulous Neil was when making this mem. He did a lot of searching in order to find the most apt resources to be used in the mem. It is perhaps influenced by the fact that he was a researcher and so he strived for accuracy and insisted to find the dictionary definition of individual parts of a character. It was only after four Google searches that he established the meaning of 戈 as ‘dagger’, despite that before the searches he already knew 戈 as ‘halberd’. This shows how important the ‘official’ dictionary meaning is for him. Moreover, the way he modified the key words for the search, the way he made correction to what he had typed show that he was careful and detail-minded. He actually modified the wording of his search four times and he made a lot of corrections while he was typing the mem. Furthermore, his facial expressions and the position of his body all conveyed the signs that he was fully engaged with the mem-making process, what Thibault (2011, 2017) called “whole-body sense-making”.


### 7.6.2 Discussion

Similar to George, Neil also attempted to break down the character into its constituents to help him make sense of the written form. This lexical item is made up of two characters, 下 and 载. 下 means ‘down’ or ‘below’. It is a simple word and is one of the first words that beginners of Chinese learn. This is probably the reason why Neil did not include this character at all in the mem.

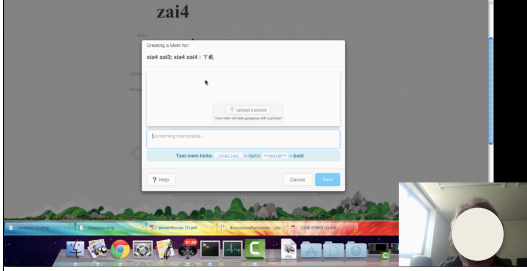
For the second part, 载, we can unpack it by first looking at the capitalised words in Neil’s mem. Similar to George, there is an underlying principle to the use of capitalisation: “I usually capitalise all the words that are appearing in the character, so ‘tool’ I cannot capitalise it because it’s not in there” (Neil, thinking aloud). LOAD is the meaning of 载, CAR is the meaning of the 车 radical, EARTH is the meaning of the 土 radical, and DAGGER is the meaning of the 戈 radical. Together they make up the word 载. His mem is heavily influenced by the mem of another user, Wobby. From there he got the idea of using “to LOAD a CAR with EARTH” as a metaphor, which serves as a way to link EARTH and CAR together. However, in his narration, he expressed that the mem did not link the “halberd” radical so he wanted to make one that includes all components that make up the character. To do this, he did extensive research from various websites and added DAGGER to make the ‘story’ complete. This example shows that although he did not create the mem from scratch, he actually did a lot of work in the selection of resources.

Table 7.4 compares the original pedagogic material with the new sign created as a mem. Unlike George, Neil’s did not include spoken form (pronunciation) in the mem, even though pronunciation was the focus of the lesson. This is probably because as Neil said himself, this is a commonly used word, so perhaps this frequent exposure helped him remember the pronunciation easily. Therefore, for him, the only thing that he needed help with was the written form, and this is reflected in his choice of resources in creating this mem.

**Table 7.3: Multimodal Transcript of Neil**

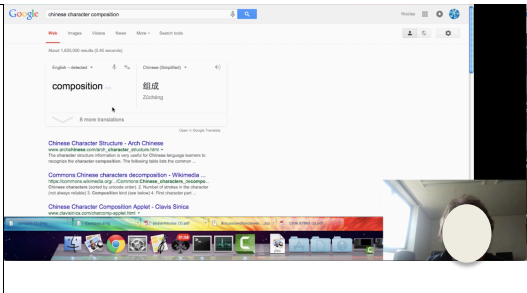
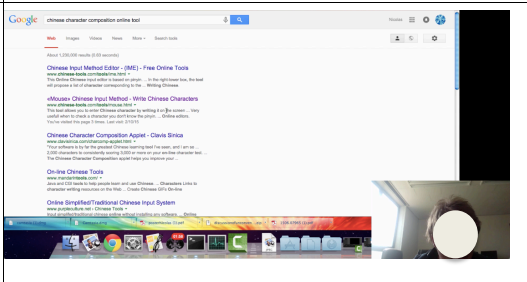
Speech and cursor movement	Screenshot	Typing	Facial expressions and other relevant happenings
<p>下載. And I suppose this is the word that with people once they've lived in China know. It's to download. So, to remember the meaning is not going to be complicated, now just to remember the character. 下, ok that's, just getting something down, below, whatever, and 載, so that's combination of halberd, which is a kind of weapon, combined that with (cursor pointing at 车) car, and it's colour the earth it's going to be, first I have to know what is, what actually means 載</p> <p><i>(Clicks "Help me remember this". Looks through two other mems)</i></p>			

<p>OK. Good friend Wobby has done the work again, so to load, so when you load a car...ok it doesn't really link... the second part halberd but, ok, loading a car...(5) to load a car you could use some tool, this weapon could</p>			

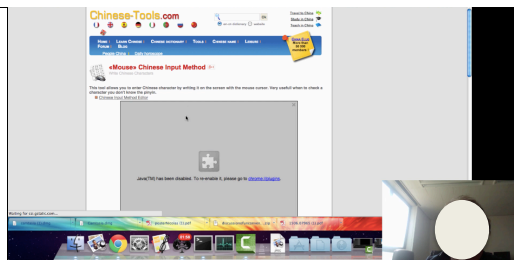
<p>be a tool... you've loading the car with earth with ground, maybe I should add here...this character</p>			
<p>Let's do that (<i>Clicks 'Add a mem'</i>) So usually for the learning sessions (<i>inaudible</i>) (<i>Copies '載'</i>)</p>			
<p>I think I have it...where is it</p>			<p>Checks to see if the website that he needs is in the bookmark section</p>

		chinese character deconstruction	
(inaudible)			Looks at the search results
		chinese character composition	



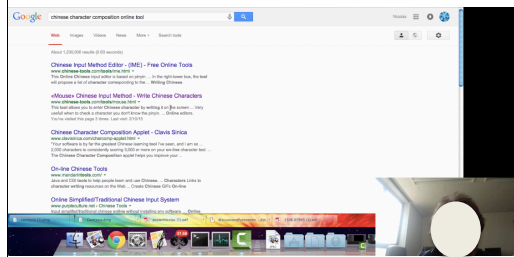
			Looks at the search results
		chinese character composition online tool	
(inaudible)			Looks at the search results
(Clicks on <<Mouse>> Chinese Input Method – Write Chinese Characters)			

(inaudible)



Looks at the page, thinks it is not useful

(Clicks on Chinese Character Composition Applet – Clavis Sinica)



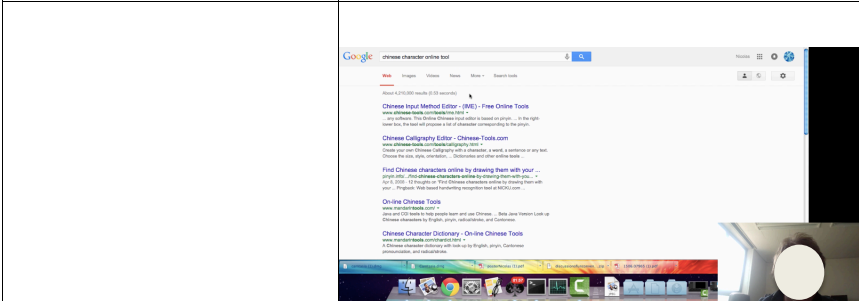
(inaudible)



Looks at the page, thinks it is not useful

Looks at other search results with the same key word

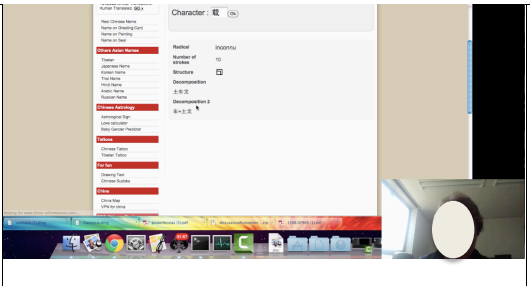
chinese character online tool



Looks at the search results

(Clicks on Character Decomposition – Chinese Tools)

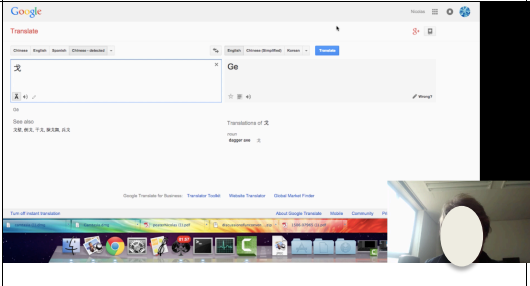
So we just (inaudible) this one  
(Pastes 戟 in the box and clicks  
ok)



We just have to make sure that  
there's (inaudible)

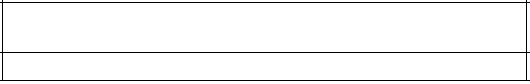
(Copies 戈)

Translate...dagger axe. Oh yeah  
so it was dagger (inaudible) a bit  
similar to halberd (Pastes 戈 to  
Google Translate)




So... let's now make

(Copies and pastes 戟 to the box)



		<p>載: to LOAD. You LOAD the CAR with EARTH. The DAGGER is there to remind you you have to use some tool to do that.</p>	
<p>I usually capitalise all the words that are appearing in the character, so 'tool' I cannot capitalise it because it's not in there. I mean the rest people will combined with the part of ...Wobby...</p>			
<p>OK I made my mem. 下 (inaudible) pronunciation, 載(.) 下载</p>			

Table 7.4: A comparison between the original pedagogic material and the newly-created material

	Original pedagogic material	Function in original pedagogic material	Language in original pedagogic material	Representation in mem	Function in mem	Language in mem
	xia4 zai3; xia4 zai4 (and recording on activation)	Spoken form (pronunciation)	English	-	-	-
	下载	Written form	Chinese	载	Shows the target word	Chinese
				CAR	noun	English
				EARTH	noun	English
				DAGGER	noun	English
	to download	Meaning	English	to LOAD	meaning	English

The agency of Neil can be seen by the omission of some information that he did not feel necessary to include, and the addition of new resources that he felt necessary to include. In the original pedagogic material “xia4 zai3; xia4 zai4” is shown to show the spoken forms (pronunciation) of the target lexical item, but they are not included in the mem. 下载 is the written form of the target lexical item and is only partially represented in the mem; 下 was omitted because it is a simple character and Neil could remember it well without help. For 载, it is represented as ‘载’, ‘CAR’, ‘EARTH’, ‘DAGGER’, where the latter three represents the components that make up the target character. They are capitalised because they represent parts of the target character. Although they are the meaning of 车, 土 and 戈 respectively, in the mem they are represented in English rather than in Chinese, and they take up grammatical functions in the newly-made sentence.

In a similar fashion, ‘to download’ is the meaning of the target lexical item. In the mem it is only partially represented as “down” which is the meaning of 下, and Neil had no difficulty with it. For ‘load’, it is represented as ‘LOAD’, capitalised because it is the meaning of the target character.

Similar to George, Neil used resources in his repertoire to create this multimodal text to scaffold his Chinese learning. For linguistic resources, he used Chinese (written), Chinese (spoken), English (written), English (spoken). As for semiotic resources, he used the mem created by another user, and his knowledge of the conventions of creating mems to accomplish this task. He also made use of a lot of ‘external’ resources, such as the websites that he consulted to help him arrive at an accurate definition.

Comparing George’s and Neil’s mems, George’s mem seems to be creative and imaginary. He creates his mem by drawing on his own knowledge of the language, mainly on the words that he already knew from his previous learning. On the other hand, Neil’s mem is a result of a lot of information search from various Chinese dictionaries and Google Translate. It can be seen that they draw on different funds of knowledge when creating the mems. The difference

in the kind of words that they are learning also plays a role in what kind of resources they draw on. Whilst George is learning an adverb, which mostly serves grammatical functions, Neil is learning a commonly used verb which is made up of two separate characters. In the post-recording interview, Neil expressed that as he was learning multi-character phrases, it was important for him to know what the individual characters meant, not just their combined meaning. He knows that because of his insistence to find out the meaning of each character, it is taking him a long time to finish one lesson. Nevertheless, he still thinks that it is worthwhile to know the building blocks of the phrase. Apparently, his research background in science has led him to strive for the precise definitions, as shown in the excerpt below.

The 'mems' [memes] that I really don't like are when someone has taken the meaning of a character, look for a picture that represents this thing, and just uses that as a background but without actually trying to explain why the character means that specific meaning or a picture, then those 'mems' are really not useful for me. The ones that are useful for me are really the ones that can build and explain why, so I think now, more recently, I don't even include any pictures anymore, I really just tell a little story based on the different building parts of the character (Neil, interview 2)

It appears that some of general principles that are identified in George's mem are also seen in Neil's mem:

- Meaning: meaning of word x in Chinese (e.g. 下载) 'is like' meaning of word y in English (e.g. 'to download')
- Written form: character (e.g. 载) 'is like' shape of objects named in English (e.g. car, earth, dagger)
- Capitalising words which are related to the target character

## 7.7 Discussion of the two case studies

Multiple perspectives can be taken to analyse these mems. I consider a social semiotic perspective and a translanguaging perspective as apt tools to help me understand how George and Neil made meaning through creating these texts. I take the social semiotic perspective to understand how the two learners, as sign-makers, remade meaning through 'digital remixing', that is, to add personal



touches to existing texts and add new meanings to them (Zourou, 2012; Adami, 2015). Furthermore, I take the translanguaging perspective to understand how learners used the resources they have in or outside of their repertoires to 'self-scaffold' their learning without any teachers.

#### *7.7.1 From a social semiotic perspective*

These two case studies show how sign-makers remake meaning across modes. In both mems, we can trace the "chain of semiosis" (Newfield, 2014:103). In the mem made by George, he first consulted a mem made by another user, and then he made a selection as to what to keep and what to leave behind. He decided that "For tough ones like this, I've been finding I like ridiculous quick phrases I can repeat a few times until they get stuck in my head" could be left behind and so it was not included in the mem that he made. He chose to keep "PERHAPS there is a LANCE in my MOUTH!", the only change that he made was to change "there is" to "there's". This represents that he was not just 'copying'. He appropriated it so that it reflects his repertoire, which normally uses 'there's', an informal form, rather than 'there is', a formal form. Also, he chose to include meaning, form, and pronunciation in his mem. On the other hand, in Neil's mem, he only chose to include meaning and form in his mem, but left out the pronunciation. Moreover, from the second mem that he consulted, which only addressed the 'car' radical in the character, he expanded his mem to include the other two radicals that were missing in the second mem. This selection, as mentioned by Mavers (2011), entails complex semiotic work (Mavers, 2011; 2015) and that

[c]hoices and combinations of choices in the 'original' are recognised and analysed, or disregarded, and remade in re-choosing and re-combining semiotic resources with the purpose of retaining some relationality, if not constancy, of meaning (p.106)

This remaking of text requires the sign-makers to interpret, redesign, and reproduce the form, meaning, and pronunciation of the target character (Mavers, 2011). This illustrates the transformative nature of learning (Kress, 2009; Bezemer and Kress, 2016). Moreover, this remaking is principled (Mavers,

2011). The other mems created by George and Neil all conform to the same general principles that we identified in the discussions above.

The use of multimodal transcripts in the two case studies are immensely helpful in unpacking how different modes are used in orchestration. Typing, speaking, pointing with the mouse, looking at the screen, to name a few, all occurred simultaneously. While at times typing or pointing with the mouse was used more frequently, at other times speaking or just looking at the screen were the dominant modes.

### *7.7.2 From a translanguaging perspective*

What George and Neil did was translanguaging. Creating these mems require them to draw on their entire linguistic and semiotic repertoires. Not only did they 'mix' the languages that they know together, they both used these languages in a fluid and flexible way. Most importantly, their use of different resources in creating these mems was strategic. They both go between and beyond language systems to make meaning through these mems.

The making of mems is an act which demonstrates the creativity and criticality of the learners (Garcia & Li Wei, 2014; Li Wei, 2011a; 2011b). According to Li Wei,

[c]reativity can be defined as the ability to choose between following and flouting the rules and norms of behaviour, including the use of language. It is about pushing and breaking the boundaries between the old and the new, the conventional and the original, and the acceptable and the challenging. Criticality refers to the ability to use available evidence appropriately, systematically and insightfully to inform considered views of cultural, social and linguistic phenomena, to question and problematize received wisdom, and to express views adequately through reasoned responses to situations (Li Wei, 2011a:1223)

George demonstrates creativity in his mem in the following ways. Firstly, his use of capital letters is 'unconventional'. At school everyone is taught to only capitalise the first letter of a sentence, the first letter after a full stop or a question mark, or proper nouns. However, but in George's mem, he capitalised 'PERHAPS', 'LANCE', 'MOUTH', and 'FIRE' which is seen as "flouting the rules

and norms of behaviour”. Moreover, the inclusion of the Chinese character 火 in the sentence further pushes and breaks the established ‘norm’. He demonstrated criticality by systematically analysing the original pedagogic material, interpreting, redesigning, and reproducing it as a mem. It was more than just copying. There was a lot of semiotic work put into creating the new mem. In Neil’s mem, creativity is demonstrated also by the ‘unconventional’ use of capital letters (e.g. LOAD, CAR, EARTH, DAGGER). Furthermore, he demonstrated criticality by omitting the word 下 in his mem because for him it was a straight-forward word and it did not need to be included in the mem. He also included all the radicals that was in the character in his own mem, even though the mems that he consulted did not include that information. Perhaps one thing worth mentioning is that 下载 (to download) is actually easier to be remembered as a phrase as it is widely used socially. Isolating the meaning of 载 and explaining it could potentially be more challenging than remembering 下载 as a phrase. This certainly demonstrates the criticality of Neil in creating the mem.

The mem created by George, in particular, clearly demonstrates the transformative capacity of Translanguaging. What seems to be clear to us though is that he has scripted himself an interesting story, a new sign, by mobilising the different resources in his repertoire and redesigning meaning, changing from one semiotic mode to another in a cycle of resemiotization (Iedema, 2003). New meanings emerged in this cycle. This meaning-making process involves carefully orchestrated use of multiple semiotic and modal resources: he is constantly talking to himself, thinking aloud; he is looking, reading, moving the mouse; he is typing; he is reading the picture/image/sign and imagining other pictures/images/signs in order to create his own sign; and he is trying out the pronunciation or trying to memorize the pronunciation and linking the pronunciation with the image/sign and making connections across meaning, sound and image. These are all examples of what Thibault calls whole-body sense-making or “pico-scale bodily events – synchronized interindividual bodily dynamics on very short, rapid timescales” (Thibault, 2011:214). Moreover, he is doing this across two languages, creating the story in English about a Chinese character, with bits of information about Chinese

radicals that make up the character embedded in the story. When he is trying out the pronunciation of the character in search of another word with similar pronunciation, he keeps repeating the word in a slightly exaggerated way, as if he was vocalising the word to get a feeling of what it sounds like as he mentally searches for another word which has a similar pronunciation. In addition, the use of resources other than language, such as the use of upper case letters as in PERHAPS, LANCE, MOUTH, FIRE, is a motivated attempt by George to highlight the keywords in the sentence, in this case, to give salience to words which would have been overlooked had there been no semiotic tools to highlight it. To sum up, in scripting a story about the character, he is simultaneously drawing on his multilingual, multimodal, multisemiotic repertoires, as well as his experiences of the world. From Neil's example, it can also be seen his experience as a researcher has played an important role in shaping his learning, as seen in his insistence and strive for accuracy.

Critics would argue that language was the only mode used in the two examples, however, I would like to address this by clarifying the stance taken by this thesis, which is the fact that language is a multimodal, multisensory, multisemiotic system. Although the two examples does not feature any 'non-linguistic' modes such as image or sound, it has to be noted that a translanguaging perspective highlights the need to go beyond the artificial divide of linguistic, paralinguistic and non-linguistic dimensions of language learning. From the above discussions, it is evident that the texts presented in this chapter are indeed texts that transcend language boundaries and go across writing systems.

## **7.8 Summary**

The chapter has presented two case studies in which learners had to create multimodal texts to achieve their learning objective – learning to read Chinese characters. These two case studies show how the original pedagogic materials that learners engaged in were transformed by the semiotic work that they put in it. When learners created mems, not only did they remember the meaning, form, and/or pronunciation of the character, they also had to create a coherent 'storyline' which connected different pieces of information together. This process goes beyond the use of language; it involves the use of the multimodal,

multisensory and multilingual resources that learners have at their disposal. The way they played around with the boundaries of 'language' and the relations of meaning and shape shows that they are translanguaging with their entire linguistic and semiotic repertoire, which acts as a resource for their Chinese learning. In terms of analysis, I demonstrated in the discussion how I used social semiotics and translanguaging to understand different parts of the meaning-making process in order to obtain a holistic view. I also attempted to show what added value translanguaging can bring to the analysis, compared with a code-switching approach. The next chapter focuses on another learning practice – learning to write in online platforms.

## Chapter Eight: Learning to write in online platforms

### 8.1 Chapter synopsis

In Chapter Seven I discussed in detail how learners use their linguistic and semiotic resources to create multimodal texts to learn to read Chinese characters and phrases. In this chapter, I focus on the resources that learners use to learn to write Chinese characters. Two case studies, featuring Valerie and Liz, show how the learners used both online and offline resources when they learn to write Chinese characters using Memrise. Although the learners are using an online platform, they often mediate between the online and the offline world when they learn to write. The key question to ask is: how and why do they move between the online and offline world? Through examining both the process of 'learning to write', and the 'products' of their writing, I seek to understand how learners select apt resources when 'learning to write'. In this chapter I am going to make three arguments: First, there is no 'pure' form of online learning where learners rely solely on online resources. Offline resources play an equally important role in online learning, and they influence each other. Successful language learning requires learners to be autonomous in choosing the resources that they need for a particular task. Second, I argue that what seems to be an act of 'copying' is actually a means of meaning-making which reflects the learners as agentive, resourceful individuals who are able to take charge of their learning through making various decisions. Lastly, I use these case studies to argue that learning is multimodal and transformative.

#### 8.1.1 *Learning to write Chinese characters*

This chapter addresses 'learning to write' because it is one of the key practices that I observed when learners used Memrise. It can be seen as a progression from 'learning to read', which was discussed in Chapter Seven. Learning to write requires a different set of epistemological commitments than learning to read (see Kress (2010) for a discussion on epistemological commitments), such as knowing the proportion of the different radicals, the lengths of the strokes, the stroke order, and the list goes on, which are not required in learning to read. Serious Chinese learners express that they want to know how to write in Chinese, although it is notoriously difficult to learn.

Indeed, learning Chinese characters is not an easy task. Shen (2005) identified two major challenges faced by learners of Chinese, especially in learning to write characters. The first challenge is the complexity of the graphic configuration of Chinese characters. In simple terms, Chinese characters have a three-tier orthographic structure: characters, radicals, and strokes. Successful mastery of a character involves the mastery of strokes and radicals. The second challenge is that Chinese characters lack sound-script correspondence as it is a logographic script (Shen, 2005; Xing, 2006; see also Li (2017) for a discussion of the challenges of learning to write Chinese characters). Learning to write Chinese characters involves a lot of embodied practice and so a lot of learners in the study expressed that 'the actual act of writing' and 'practice writing them' are the keys to successfully learning to write Chinese characters. Kan, Owen and Bax (2018) identified some character learning strategies by learners using mobile technologies. They found that as new ways of learning characters are used, new learning strategies emerged as a result, such as using pinyin input to choose/identify characters, which was not possible before technology was used. They also identified some strategies that were used previously, but technology has made them more important than before. For instance, while previously Shen (2005) has identified self-testing as one of the strategies for character learning, its importance has grown by the use of mobile learning apps, possibly because technology makes self-testing much easier to do than using pen and paper.

Nevertheless, in the context of online language learning, learning to write is seldom addressed for two reasons: firstly, most studies on technology and language learning are based on European languages that use alphabets (see my review of CALL studies in Chapter Two), therefore the need to learn how to write the alphabets is minimal, as a lot of languages, especially European languages, use an alphabetic system or variations of it. Secondly, a lot of studies focus on the use of technology to build communicative competence for survival in a new country, especially in social interactions, which is often being seen as synonymous with developing listening and speaking skills. Writing is usually excluded, or seen as marginal.

In addition to the scarcity of literature that addresses the issue, I also have a theoretical interest to examine 'learning to write' in online platforms. When I was looking through the screen recordings submitted by learners, These 'learning to write' practices struck me as rich examples of the learning theory proposed by Bezemer and Kress (2016) which sees learning as engagement with the world. This concept is elaborated later in this chapter.

People learn to write online in different ways. The following section examines how two learners, Valerie and Liz, learn to write Chinese characters using Memrise and other tools. I first present their comments gathered from the semi-structured interview to make sense of their different approaches to 'learning to write' (refer to Chapter Four for the details of semi-structured interviews). After that, I compare the two case studies to discuss how 'learning to write' in online platforms differs from person to person, which is closely related to a bigger question: how and why do these learners move between the online and the offline world in relation to the affordances presented by these two environments?

The online and offline worlds should not be seen as two entirely separate spaces. Warshauer (2000) argued that the online world and the offline world are interconnected. What students engaged in the online world will make an impact on their offline communication in real life. In a study conducted by Lund (2006), it was found that "learners introduce elements from one context into another as they traverse the boundary zone [of the online and offline world]" (p.199). In a similar fashion, learners participating in this study also brought with them their understanding and beliefs of how to learn to write in an offline context to the online world. In other words, the online-offline boundary is an artificial construct. It is imaginary. The following section looks at their traversing between the online and offline spaces in more detail.

## **8.2 The two case studies**

The two case studies below feature two learners, Valerie and Liz. These two learners were selected because of the following reasons:



### *1. They chose to learn to write Chinese characters*

Among the 11 learners featured in the study, only three learners (Ella, Valerie and Liz) expressed that they would like to learn to write Chinese characters.

The other learners believed that learning to write was not necessary, as explained in the following interview excerpts:

In my normal life in English, I really only write on a computer, hardly ever on paper, apart from shopping lists. If I lived my whole life in Chinese, I could probably just type pinyin into one of those programs like Sogu and write characters like that (Vicky, interview 1)

Actually, when you look at nowadays users of Chinese, even Chinese students, except the ones that have to write at school, they use their computers all the time...handwriting would not be my focus for the time being and for the foreseeable future. (Neil, interview 2)

In contrast, the three learners who expressed an interest in learning to write had something different in mind, as shown in the following excerpts:

I wonder if there's something about the actual act of writing that is more useful, then the act of kind of selecting it on your phone or even typing the pinyin, and then identifying it. Cause typing and identifying is a really different thing from being able to write it. (Ella, interview 2)

Physically writing the characters as opposed to clicking on them is helpful. (Liz, interview 2)

I can only remember things when I've written them down. Also with Memrise I have a little book where I write down the characters and meaning and the stroke order, so I remember them, also how to write them. (Valerie, interview 1)

These excerpts highlight the fact that the learners understand the different epistemological commitments involved in physically writing a character and other kinds of activities, such as selecting a character on the phone, or typing the pinyin. Among the three learners that had expressed an interest to learn to write Chinese, I could only obtain handwriting from two of them. In terms of research practicality, this is one of the reasons why Valerie and Liz are selected to feature in the two case studies.

### *2. These learners demonstrated the complexity of online learning practices*

When examining the screen-recording footage, I found that Valerie and Liz both used a variety of online and offline resources to learn to write Chinese characters, even though learning takes place in an online platform. This act of traversing between the online and offline world demonstrates the complexity of online learning and the diversity of resources used. By actively selecting apt resources for themselves, they are also examples of resourceful and autonomous learners.

### *3. They are experienced language learners*

Both Valerie and Liz are experienced language learners. Before participating in this study, Valerie already speaks German (L1), and has the experience of learning English, French, Spanish, Portuguese and Polish. As for Liz, before participating in this study, she has already learnt seven languages. As Peek (2015) suggested, learners with a larger linguistic repertoire who use different languages frequently tend to be more autonomous as a language learner, and vice versa.

## **8.3 Case Study: Valerie**

This case study focuses on Valerie, a 20 year-old university student from Germany studying multilingual communication. At the time of data collection, Valerie had attended Chinese classes for one semester, and she had been using Memrise as a supplement to her Chinese lessons. Among the four areas of language learning - reading, writing, listening, speaking, Valerie thinks that writing is the most important thing to learn.

Valerie is a very motivated Chinese learner. The data collection period coincided with her semester break. Instead of waiting for the next semester to begin to start learning Chinese again, she decided to search on the Internet to see whether there were any resources that she could use to keep learning Chinese during this break, and she found Memrise. Also, as an experienced language learner, Valerie seem to be very confident when it comes to learning Chinese, a language that is always being seen as difficult. In the following excerpt she compared Chinese to her first language, German:

German is a way more complex language when you look at the structure. The writing is the easy one to get to, but the structure is really complicated... So when I learn Chinese I'm really glad that I don't have a lot of grammar...A lot of people think Chinese is so complicated but it's, when you want to learn it, when you work hard or when you just do it some hours per week, it's absolutely doable (Valerie, interview 2)

### 8.3.1 Discussion of data

In the video Valerie was learning new words from a lesson called 'First 500 characters in Mandarin Chinese'. One word that she had to learn was 民 (people).

This is the content that came up on the page:

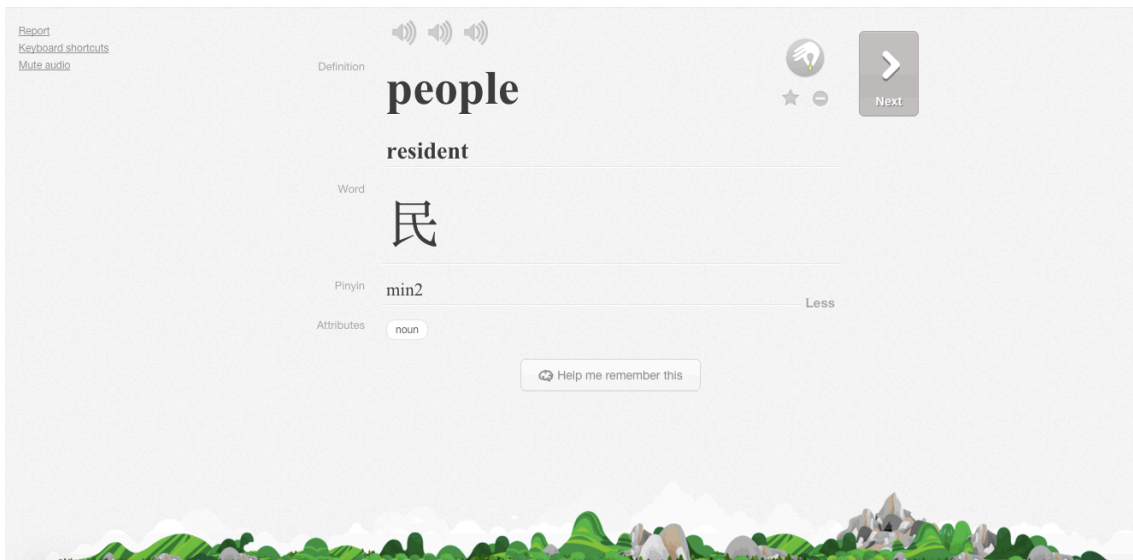


Figure 8.1: The original pedagogic material (people)

As mentioned before, the most important thing for Valerie was to learn how to write the character. Instead of just copying the character as it appeared on the screen, she decided to first check the stroke order of the character. As this information was not provided in Memrise, she had to find it from another website:

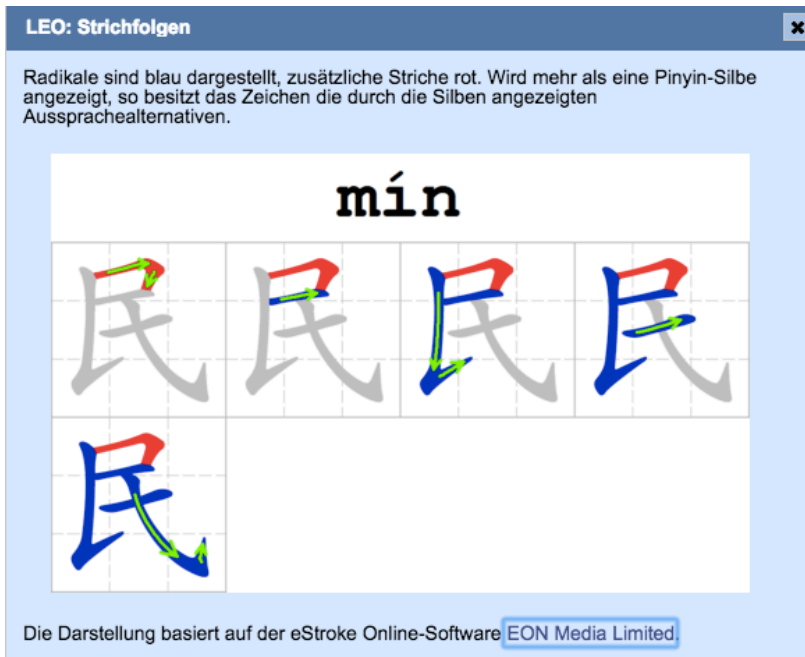


Figure 8.2: Stroke order from an online dictionary (LEO Dictionary, 2016)

She went on to an online dictionary to check the stroke order of the character (see Figure 8.2). The text above the stroke order gives instructions about how to decode the different colours. Translation is as follows:

Radicals are shown in blue; additional strokes in red. If more than one pinyin syllable is shown, then the character/sign has the pronunciation alternatives which are shown by/through the syllables

Not indicated in the instruction is the direction of the arrows which indicated the direction of the stroke. She then copied it to her notebook:

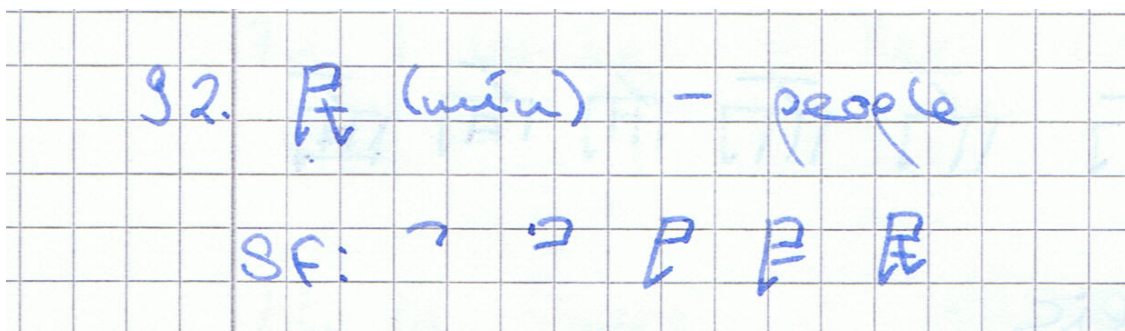



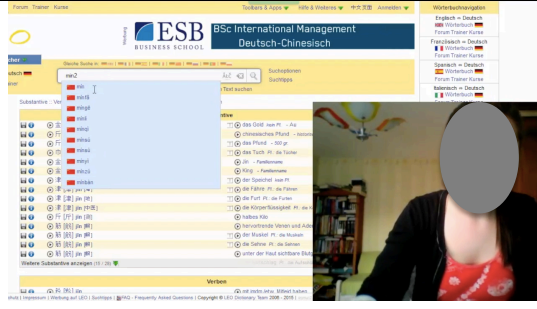
Figure 8.3: Valerie's handwritten notes

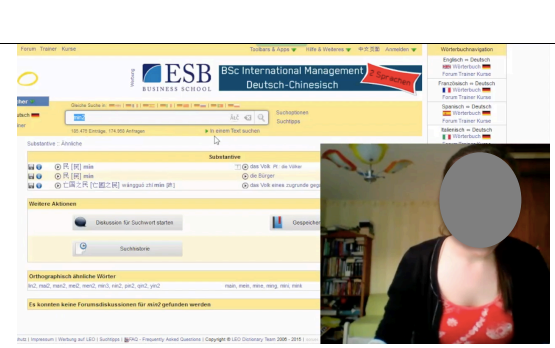
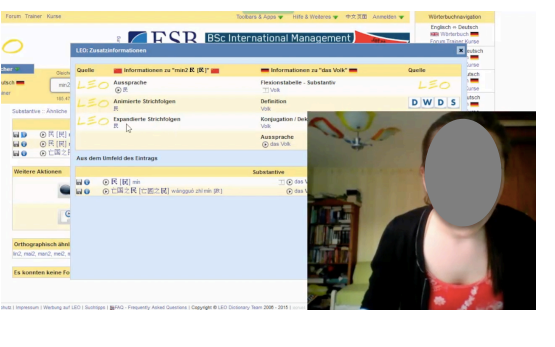
From the original pedagogic material (Figure 8.1), she copied the character (民), pinyin (mín), meaning (people). From the online dictionary (Figure 8.2), she copied the character stroke by stroke. For Valerie, not only is learning how to write important, but also the order in which the strokes are being written:



When you know the radicals, it's easier to remember what the character means. And also if you have some order you know where to start and where to end, sometimes I'm like, okay wait, I know this radical is in this character...mostly if I get the first one right I get everything right because that's the way I learn it and it helps to get the rhythm of the words (Valerie, interview 2)

### 8.3.2 *Multimodal transcript*

The multimodal transcript (Table 8.1) shows the steps that Valerie took to learn how to write the character (民). It shows that she went to consult an online dictionary because she was not sure about the stroke order, and how she followed the step-by-step guide to copy the character into her notebook. In this situation, a multimodal transcript is particularly useful to help me gain insight of how Valerie made use of the resources available, select apt resources, and reproduce her own character in her notebook, using a different medium (pen and paper) which requires a different set of epistemological commitment (Kress, 2010), for instance, knowing the proportion of the different components of the character, how long the strokes should be, etc. A lot of information would have been missed had I only performed a text analysis focused on the final 'product', that is, the writing in her notebook. This is an instance where using ethnographic tools in partnership with multimodality is helpful to help me gain a deeper understanding of the process of writing through examining artifacts, observation and semi-structured interview. See Chapter Four for a detailed account on the use of ethnographic tools in this thesis.

Table 8.1: The multimodal transcript of Valerie's interaction with the screen			
Speech	Screenshot	Typing / Writing / Clicking	Facial expressions and other relevant happenings
<p>Memrise: min2 (民) (2) Valerie: min2 (民) (writes in her notebook)(.)OK, that one is completely new to me (2) and I'm not (.) really sure about the stroke order, so I will just (.) go on another link (.)</p>		<p>Writing something on her notebook and opening a new window to LEO dictionary</p>	<p>Looks at the word intently while copying it in her notebook</p>
<p>and (.) type (.) in (.) min in the second tone</p>		<p>min2</p>	

<p>Look for here I also have the German translation here</p>		<p>Clicks on the 'information' button</p>	
<p>and go on the expanded stroke order</p>		<p>Clicks 'expandierte strichfolgen' (expanded stroke order)</p>	

<p>So see ok it's written like this (writes in her notebook) (3) It's actually quite easy but I wasn't (.) sure which kind of radicals were used (5) (inaudible) stroke order (.) it's one (2) two (2) three (4) four (2) five strokes, so there are quite few (.) that's nice</p>		<p>Copies the strokes to her notebook</p>	<p>Her gaze alternates between her notebook and the screen. She is also holding a pen with her right hand to write the character down</p>
<p>Ok (.) I go</p>		<p>Clicks 'Next'</p>	



### 8.3.3 Discussion

The way that Valerie learned to write could be compared with young children copying letters from alphabet charts. When we first learn a language, one of the first steps was to trace or copy the letters or characters for many times until we got it right. In a study conducted by Kenner and Kress (2002), they looked at early bilingual script learning. The languages in focus were Chinese, Arabic, and Spanish. These languages all have different features, such as shape, spatial organisation, directionality, to name a few. Through observing young children's "peer teaching sessions", Kenner and Kress found that these early bilinguals were aware of the principles underlying these different writing systems, and that they were developing "embodied knowledges" of the act of writing these different script systems. In particular, the children discovered several principles about Chinese writing: 1) Chinese have no alphabet, 2) Chinese words are made up of visual shapes, 3) Chinese characters are made up of 'elements' signifying meaning or pronunciation (semantic radicals and phonetic radicals), 4) Chinese characters appear in the centre of a squared grid rather than linearly, 5) The sequence of strokes, as well as their lengths, angles and curvatures are important. The same could be said about the two learners in this study who also showed awareness of the above principles. For instance, in Valerie's case, a correct representation of the character does not only mean getting the form right, but it also means getting the process (the stroke order) right. However, even with such considerations in mind, from the eye of a 'native' Chinese speaker, the lengths, angles and curvatures of the handwritten character does not conform to the 'standardised' way of how this character should be written. Critics would argue that it is a failure on Valerie's part that she did not learn the character well, or even worse, she did not copy it correctly. However, as I would argue in section 8.5.3, what Valerie did is much more than copying. It is sign-making to demonstrate her learning.

The notebook that she used to write the character had grids on it (see Figure 8.3). She chose this kind of notebook because she could "determine the spacing between the written lines better" (Valerie, email correspondence). The whole page is divided into two parts by the bold grey line (to the right of the

number “32”). The left column indicates the number of items, in this case 民 is the 32<sup>nd</sup> item on the page. The first line on the right column shows the form of the character (民), its pinyin (mín), the meaning in English (people). The second line shows the stroke order (*strichfolgen* in German, SF as indicated in the text). This is a stroke-by-stroke guide ‘copied’ from the online dictionary.

As regards the pen that she used to write the characters, Valerie explained,

At a certain age in school it was not acceptable anymore to write with pencils so it became a habit to use pencils only for sidenotes. And since the pen I used wrote with ink it was still erasable (Valerie, email correspondence).

This quote shows how learners bring offline classroom practice to the online learning environment. First of all, she chose not to use a pencil because of her experience at school that pencil was only used for making ‘side notes’, but not the main content. However, she realised that in practical terms, it would be better if she could erase what she wrote in case she made a mistake. In order to strike a balance between her habit formed in school and practical needs, she chose to write with a pen with erasable ink. This is a motivated selection of an apt tool which demonstrated her agency.

#### **8.4 Case Study: Liz**

The second case study focuses on Liz from the United States. She was a substitute teacher in her 20s, speaking English as her first language. She also knows French, Ancient Greek, Latin, German, and Toki Pona, an invented language that borrows from Dutch, English and Chinese (Bramley, 2015). Among the seven languages that she knows she learnt German and Toki Pona by herself. She wanted to learn Chinese because she wanted to set herself a challenge, and to be able to consume Chinese-language materials such as books and media.

Liz is an experienced language learner and she has her own ‘recipe’ for language learning. She only started to learn Chinese after she signed up for this study. From the interview before the study started, it is not hard to see that she is confident of her ability, based on her previous language learning experiences:

I can sort of teach myself grammar and remember that pretty easily, 'cause I speak seven languages, and so the more you know the easier it is to learn grammar so that's not really hard for me anymore, it's just needing to remember what all the words mean (Liz, interview 1)

This is a clear excerpt showing that Liz treats her multilingual repertoire as a resource for language learning. For her, the more languages that she has in her repertoire, the easier it is to master another language as she is able to use her entire linguistic repertoire to help her make sense of a new language system. As García and Kano (2014) suggested in their investigation of Japanese students learning to write academic essays in English,

Experienced bilinguals are able to use their entire linguistic repertoire for their own enrichment... it is their translanguaging that enables them to produce the specific language for the academic task. It is also their ability to translanguage and the opportunities to translanguage in this class that develops their dynamic bilingualism as they self-regulate as learners (p.273)

In other words, Liz's multilingual linguistic repertoire affords her with a higher metalinguistic and metacognitive awareness that can facilitate her language learning (Cummins, 1987; Jessner, 2006). By drawing on her language learning experiences, she is able to become an autonomous language learner. She can select resources that she considers as fit for the purpose. For instance, when I reviewed the recording, I realise that at one point she is making gestures when practising the tones. We discussed it in the follow-up interview (interview 3):

- J: ... I see that you were making gestures about the tones. Because when, you know the tones, they are, for example, first tone is like a straight line, and its read like a straight line. Second tone is like a slope and it's also read from, you know, from low to high, so do you think making gestures helps you read the words?
- L: ya ya.
- J: That's exactly how I learned Mandarin as well. The teacher would stand in front of the class and say *ma* in four different tones, making, asking us to do gestures with our hands while practising the tones out loud. So is this what you've been doing as well?
- L: Yeah. That's something I did when I started learning Greek, which also has pitch accents, which is sort of similar to tones
- J: I see.
- L: Just stole it from there.

J=researcher, L=Liz

This is translanguaging in action. This character has a fourth tone, which starts with a high pitch and ends with a lower pitch, like a downward slope. When Liz is practising this tone, she uses her finger and makes a downward motion. Liz uses her experiences of learning Greek to help her learn Chinese tones, using hand gestures (see Figure 8.4). It shows that she is using her whole multilingual, multisemiotic repertoire. She probably would not have done this had she not done the same thing when she learnt Greek.

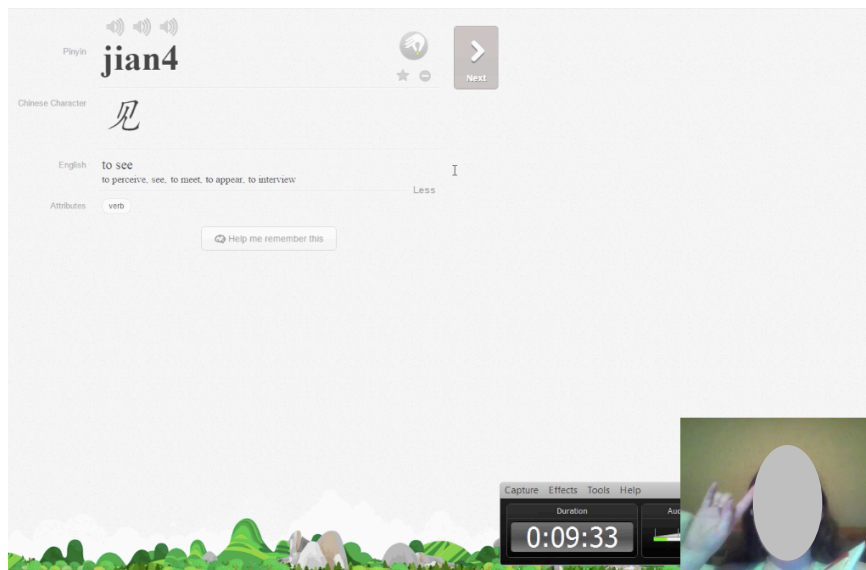


Figure 8.4: Liz learning pronunciation using hand gestures

At the beginning of the study, she clearly expressed that the one thing that she did not focus on in any of her self-directed language learning was writing:

Well one thing that I just don't care about at all in any other languages that I learned is writing...when you're talking, I feel like people are more lenient if you like don't conjugate a verb correctly or, like do something wrong in forming a question. But writing you really have to get it correct all the time, so I'm just not bothering about learning how to write Chinese (Liz, interview 1)

However, in the middle of the study, Liz had a change of strategy:

What I've started doing, which is helping, is writing, I'm keeping a notebook where I'm writing out the words that I'm learning...because actually physically writing the characters as opposed to clicking on them is helpful (Liz, interview 2)

It turns out that her Chinese learning is actually related to her learning of Chinese calligraphy at college:

I spend a lot of time trying to think about the stroke order, and since I took the Chinese calligraphy class when I was in college, I really try to make it look pretty, like balance things out and it's actually really different writing Chinese with a pencil than writing it with a brush, 'cause you can get, like different thicknesses...(Liz, interview 3)

These excerpts are examples of how offline experience is having an influence on online learning. Liz's experience of calligraphy has shaped her view of how she should learn Chinese by helping her understand the configurations of Chinese characters.

#### *8.4.1 The data*

During the four-week data collection period, Liz took an HSK level 1 course. She had been learning vocabulary from level 1 and 2 within the HSK level 1 course. After the recording sessions, she decided to write the words down in her notebook. Figure 8.5 shows one page of her vocabulary notebook.

Levels 1+2

5/2

了子	子 (zǐ)	child	子 (zǐ)
女	女 (nǚ)	woman	女 (nǚ)
	好 (hǎo)	well (good)	好 (hǎo)
	小 (xiǎo)	small	小 (xiǎo)
	勺 (bāo)	wrap (radical)	勺 (bāo)
	尔 (ěr)	thou	尔 (ěr)
	人 (rén)	man (person)	人 (rén)
	你 (nǐ)	you	你 (nǐ)
	你好 (nǐ hǎo)	hello	你好 (nǐ hǎo)
	马 (mǎ)	horse	马 (mǎ)
	妈 (mā)	mother	妈 (mā)
工	工 (gōng)	work	工 (gōng)
乍	乍 (zhà)	suddenly	乍 (zhà)
作	作 (zuò)	to do	作 (zuò)
羊	羊 (yáng)	sheep	羊 (yáng)
木	木 (mù)	wood	木 (mù)
样	样 (yàng)	appearance	样 (yàng)
丝	丝 (sī)	cocoon	丝 (sī)
帽	帽 (mào)	cap	帽 (mào)
点	点 (diǎn)	drop	点 (diǎn)
见	见 (jiàn)	to see	见 (jiàn)
觉	觉 (jiào)	to sleep	觉 (jiào)

Figure 8.5: A page from Liz's vocabulary notebook

The layout of the notebook is a typical one used by students, with a red margin on the left that divides the page into two parts. This is a typical arrangement of an exercise book for writing in a language with an alphabetic script system. Although Chinese could also be written on this kind of lined page, it is not typical for beginners. In most schools in Asia, using a lined page like the one used by Liz to write Chinese is a practice for advanced students of Chinese who are already familiar with the spatial arrangement of Chinese characters. A more typical arrangement for practising Chinese writing would be grids enclosed in big squares. The choice of lined notebook instead of grids enclosed in squares to practice writing Chinese could be a matter of choice, or it could be due to the unavailability of exercise books with grids enclosed in big squares.

Although the page has a two-column structure, Liz further divided the page so that it now has four columns, each column contains different information:

I copied down all the words I learned in my memrise course. The first column has the stroke order (if it wasn't obvious to me); the second column has the word in Chinese and the pinyin; and the third column has the English translation. I fill in the last column 2-3 weeks later. I cover up [the] everything but the English, and then try to write out the character and pinyin. Then I go back and check my work and highlight anything I got wrong in yellow (Liz, email correspondence)

Here we see something opposite to what Daniel did in Chapter Five. In Chapter Five, Daniel imported the vocabulary from a textbook, which belonged to the offline world, to Memrise, the online world. He did that because the affordances of Memrise could generate flashcards in random order so he could practice vocabulary. Here Liz created her own quiz by 'copying' the vocabulary from Memrise, the online world, to a notebook, the offline world, then cover up the 'copied' characters and practise writing them again after 2-3 weeks. Apparently, for Daniel, his purpose was to practise the form-meaning relation of the vocabulary, and Liz's purpose was to practise not only the form-meaning relation, but also the strokes as well. The comparison of these two examples shows the interconnectedness of the online and offline world and the agency of learners. In certain situations, such as in the case of Daniel, he saw the affordances in the online platform to revise vocabulary and so he decided to traverse from the offline to online. In contrast, Liz saw the affordances with using pencil and paper to practise writing, and thus she decided to traverse from the online world back to the offline world.

Liz chose to use a pencil rather than a pen to practise writing. This is a practice typical of beginners. They prefer using pencils so that if they made a mistake, it would not leave a permanent mark. Eraser marks are also visible in Liz's writing. This observation is confirmed by email correspondence with Liz. Similar to Valerie, instead of 'copying' the non-standard pinyin notations, she used the standardised pinyin symbols in her writing.

## 8.5 Discussion: Learning to write in online platforms

The two learners featured in this chapter learnt to write Chinese characters without any help from teachers. Although they were all learning in an unsupervised context, all of them were concerned about stroke order. However, the ways they learn to write in online platforms are very different. This section summarises some key observations that are being made from the two learners.

### 8.5.1 *Traversing between the use of online and offline resources*

Both online and offline resources are used by learners to learn how to write in online platforms. For instance, both Valerie and Liz had decided to physically write the characters down by hand, using notebook and pen/pencil. ‘Writing things down’ is seen as an important resource in language learning:

I can only remember things when I've written them down. Also with Memrise I have like a, like a little book where I write down the characters and meaning and the stroke order, so I remember them, also how to write them (Valerie, interview 1)

I wanted to write out the characters I remember them better when I have to exert the mental effort to draw each individual line, as opposed to just pressing a button. I also know that stroke order is important in Chinese and I wanted to have some time to practice that (Liz, email correspondence).

Indeed, writing by hand requires a different kind of epistemological commitment (Kress, 2010) from recognising a character, identifying the correct character from the wrong ones, or typing out the pinyin. Writing by hand requires the knowledge of stroke order, the angle, curvature, directionality of the strokes, the spatiality of the different elements of the character, etc. Learning to write by hand helps learners ‘experience’ the character differently from just looking at it or selecting it on the screen. Examining Liz’s handwriting closely, it can be seen that she is still trying to make sense of the spatial arrangement of Chinese characters. For instance, in Figure 8.6, when writing the character 样 (appearance), the 木 radical should occupy a smaller space than the radical 羊. However, in Liz’s handwriting of the character, both radicals occupy the same amount of space. In contrast, if we examine Valerie’s handwriting of the same character in Figure 8.7, it can be seen that Valerie had already shown signs of understanding about how the two radicals should be arranged.



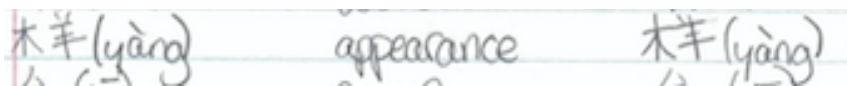


Figure 8.6: Liz's handwriting of the character 样

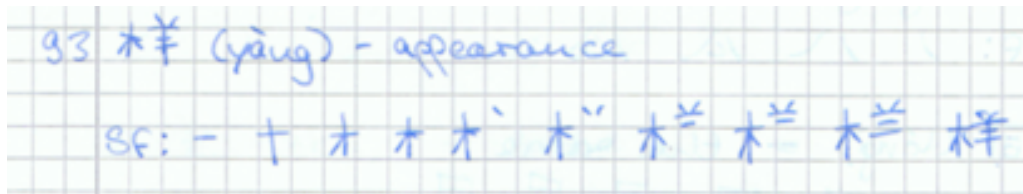
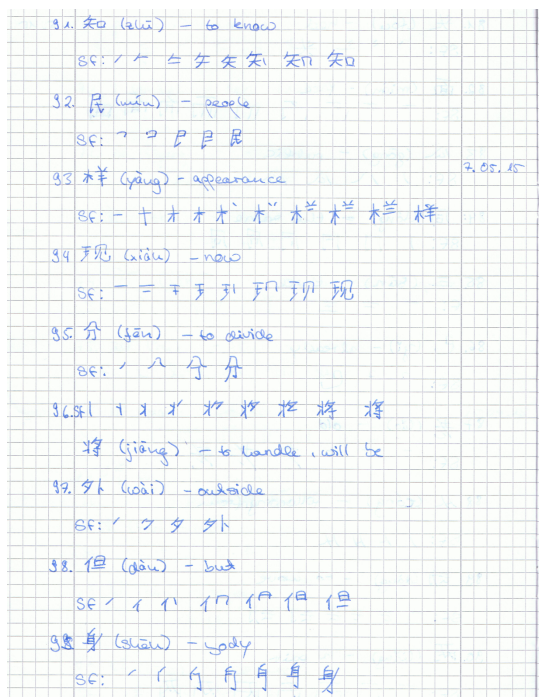


Figure 8.7: Valerie's handwriting of the character 样

Comparing a page of notebook of Valerie and Liz, it can be found that they have demonstrated how they learn to write online in different ways, which are summarised in Table 8.2:



Levels 1+2			
子 (zǐ)	子 (zǐ)	child	子 (zǐ)
女 (nǚ)	女 (nǚ)	woman	女 (nǚ)
好 (hǎo)	好 (hǎo)	well (good)	好 (hǎo)
小 (xiǎo)	小 (xiǎo)	small	小 (xiǎo)
包 (bāo)	包 (bāo)	wrap (radical)	包 (bāo)
尔 (ěr)	尔 (ěr)	thou	尔 (ěr)
人 (rén)	人 (rén)	man (person)	人 (rén)
你 (nǐ)	你 (nǐ)	you	你 (nǐ)
你好 (nǐ hǎo)	你好 (nǐ hǎo)	hello	你好 (nǐ hǎo)
马 (mǎ)	马 (mǎ)	horse	马 (mǎ)
妈 (mā)	妈 (mā)	mother	妈 (mā)
工 (gōng)	工 (gōng)	work	工 (gōng)
乍 (zhà)	乍 (zhà)	suddenly	乍 (zhà)
作 (zuò)	作 (zuò)	to do	作 (zuò)
羊 (yáng)	羊 (yáng)	sheep	羊 (yáng)
木 (mù)	木 (mù)	wood	木 (mù)
样 (yàng)	样 (yàng)	appearance	样 (yàng)
丝 (sī)	丝 (sī)	cocoon	丝 (sī)
帽 (mào)	帽 (mào)	cap	帽 (mào)
滴 (diàn)	滴 (diàn)	drop	滴 (diàn)
见 (jiàn)	见 (jiàn)	to see	见 (jiàn)
觉 (jiào)	觉 (jiào)	to sleep	觉 (jiào)

Figure 8.8: A page from Valerie's vocabulary notebook (left)

Figure 8.9: A page from Liz's vocabulary notebook (right)

Table 8.2: A table showing the different ways that Valerie and Liz took to learn to write Chinese characters

<b>Learner</b>	<b>Valerie</b>	<b>Liz</b>
Platform used	Memrise and online dictionary (to check stroke order)	Memrise and possibly online dictionary (to check stroke order)
Medium	Pen and paper	Pencil and paper
Format of notebook	Grid	Lined
Highlighting	No	Yes
Availability of final product (the character)	Given	Given
Availability of elements of the character	Elements of the character is visible (as strokes in the online dictionary)	Elements of the character is visible (as a whole character in Memrise)
Availability of stroke directions	Stroke directions given prospectively	Not given
Clarity of instructions	Explicit instructions (from the online dictionary)	No instructions
Self-testing	No	Yes
Principle of learning	The character as the starting point – the character is deconstructed into strokes	The strokes as the starting point leading up to a complete character
Learners' perceived importance of learning stroke order	All are concerned with learning about the 'correct' stroke order	

### 8.5.2 Copying as a process of sign-making

At first glance, what Valerie and Liz did was considered 'copying' in a conventional sense. Traditionally as something frowned upon in a pedagogical setting, 'copying' was seen as a passive process that did not require students to engage with the prompt. Mavers (2011) argued that copying is actually a purposeful, agentive process which requires semiotic work from the 'copier'. Photocopying from a xerox machine is often considered as a conventional sense of copying which produces copies identical to the original. However, Mavers (2011) challenged this claim by arguing that copies generated from a photocopying machine has a different materiality from the original copy, and that the original substances such as erasing marks or creasing are lost in the copying process. This analogy problematises what copying actually is. Mavers (2011) then explained that "copying is a relational process where an existing

material entity is interpreted and then remade as a different material entity” (p.15), and most importantly, “[m]aking the copy is also a process of sign making” (p.15) which is also an agentic process. In other words, there is no such thing as an “identical copy” as “copying is an agentic process of remaking afresh” (p.16). Even a photocopy machine cannot produce identical copies of an original in that sense. In the two case studies, both learners analysed the design of the original material (the forms and meanings), and then they were faced with a range of decisions as to “what is recognized, valued and deemed relevant “ (p.22). They showed signs of learning in the process of ‘copying’. Moreover, through the act of ‘copying’, Valerie and Liz demonstrated their agency to learning. They had to select what they should write down in their notebooks, and what to leave out. They had to recognise what was salient and what was not. It can be concluded that ‘copying’ in this situation is an active, motivated act which demonstrates signs of learning, as opposed to passively copying without engaging with the content.

### *8.5.3 Learning as transformative engagement*

From the above discussion, it can be seen that even though in a language learning context accuracy is the desirable outcome, it does not mean that deviation from the original is unacceptable. As Mavers (2011) mentioned,

[c]hanges are always there, however inconspicuous, and they are always meaningful. They may supplement, extend, deviate from, elaborate or explain that which was given in the original” (p.31).

For instance, looking at Valerie’s writing closely, we may realise that the ‘texture’ of the character differed from screen to page. On screen (Figure 8.2), because of the type of font used, it mimicked the kind of writing done by a calligraphy brush which can produce different kinds of ‘thickness’ depending on the strength of writing. This is different from using a ballpoint pen, which can only produce one type of ‘thickness’.

In the case of Valerie, the way she ‘copied’ the character shows deviation from the original (the original in this case could be considered as the character shown on Memrise and in the online dictionary). First, in terms of materiality, the text that Valerie created is a handwritten note written on a page in her

notebook, using a pen rather than being typed into the computer. The handwritten note written by Valerie includes the character (民), pinyin (mín), meaning (people). From the online dictionary, she copied the character stroke by stroke, i.e. strichfolgen (SF as indicated in the text). Furthermore, while different colours were used to indicate different strokes, and arrows that indicated stroke orders, Valerie did not 'copy' everything she saw. She only used a blue pen to write the character. Instead, she selected and 'copied' the criterial aspects of it, and left out the information that was not important to her. This act demonstrated that she understood what constituted the character and what was not. She strategically excluded certain elements, such as the alternative meaning of the character ('resident'), and the attribute of the character. She changed the pinyin symbol from 'min2', a non-standard convention, to 'mín', the standard convention. This shows that she selected the information she needed in order to learn the character and transform them. It also shows that she was not just passively copying. Instead it was a purposeful, agentive act which involved her interpretation of the material and she remade it to create a new sign (Mavers, 2011). It shows her interested engagement with the content (Bezemer & Kress, 2016). Using Wenger's (1998) words,

Learning is something we can assume – whether we see it or not, whether we like the way it goes or not, whether what we are learning is to repeat the past or to shake it off. Even failing to learn what is expected in a given situation usually involves learning something else instead (p.8)

These two case studies illustrate clearly how learning is multimodal and transformative. As mentioned in the above discussion, both Valerie and Liz were making new signs through the act of 'copying', and in this process meaning was made. Learning is the result of this process (Kress, 2009). From the social semiotic perspective, learning is the outcome of the learners' responds to a prompt, in this case the characters shown on the screen. Then they transform this prompt into a new sign, that is, the writing in their notebooks. Kress (2009) defined learning as:

the result of the transformative engagement with an aspect of the world that is the focus of attention by an individual, on the basis of principles brought by them to that engagement; leading to a transformation of the individual's semiotic/conceptual resources (p.31)

Learning is transformative engagement. It is the outcome of every engagement with the social world (Kress, 2009; Bezemer and Kress, 2016). For instance, after Valerie and Liz read the prompt shown on the screen, they had to select the most suitable modes of representation, in this case, writing, to demonstrate their learning. They also had to choose the tools that they needed by considering the affordances of these tools, such as the use of a pen versus a pencil, the use of a grid notebook versus a lined notebook. After writing the characters in their notebooks, a new sign is made which transformed the original prompt, and learning has occurred.

## **8.6 Summary**

People learn to write in different ways. Memrise is mostly a vocabulary-learning platform that does not place a high priority on writing. It is up to the learners how to use the resources provided to achieve their goal of learning to write. In the above case studies, it could be seen that while Valerie and Liz used the same platform and was provided with similar input, the way they selected resources was different. Nevertheless, both of them decided to traverse between the online and offline world because they recognised the different sets of affordances available in these two contexts. In a study conducted by Lai (2015), he found that learners were able to act on the affordances of different learning contexts “to create complementary, synergetic learning experiences” which could be mediated by the features of the resources, as well as the abilities of the learners (p.281).

In this chapter I have made three arguments: First, there is no ‘pure’ form of online learning where learners rely solely on online resources. In the discussion I have explained how learners moved between the use of online and offline resources in their learning of Chinese, and how these resources influenced each other. Successful language learning requires learners to be autonomous in choosing the resources that they need for a particular task. Second, I argued that what seemed to be an act of ‘copying’ was actually a means of meaning-making which reflected the learners as agentive, resourceful individuals who were able to take charge of their learning. Lastly, I argued that learning is

multimodal and transformative. The next chapter aims to summarise the key findings presented in this thesis.

## Chapter Nine: Conclusions

### 9.1 Chapter synopsis

This chapter concludes the thesis by revisiting the key themes that have been covered in each chapter. I then present the contributions that I consider this study makes to existing knowledge. These cover theoretical, empirical, and methodological contributions. Finally, I address the limitations of the study and suggest some directions for future research.

To recap, this study began with the following overarching research question:

- How do learners use resources in their repertoires to make meaning when learning Chinese in an online, self-directed context?

In an attempt to answer this broad question, I also asked the following sub-questions:

- a. What resources does Memrise provide, and what are the affordances of these resources?
- b. What resources do learners possess, and how do they use them differently?
- c. How do learners use translanguaging to scaffold their learning to read Chinese characters?
- d. How and why do learners alternate between the use of online and offline resources when learning to write Chinese characters?

Throughout the previous eight chapters, this thesis has described and analysed learners' uses of Memrise from different angles. The following section revisits the key concepts that I have mentioned in this study.

### 9.2 Revisiting the key concepts

In a contemporary superdiverse world which is dominated by mobility and technology, it is crucial to understand how mobile technologies and mobile learners have transformed language learning. In Chapter One of the thesis, I discussed in detail the connection between these two aspects of mobility, and

how the affordances of mobile technologies and mobile learners give rise to new ways of language learning, one of which is through online platforms. I argued there that the ubiquity of mobile technologies leads to more mobile learners, and the increase in the number of mobile learners calls for more mobile technologies to be developed. Later on in the same chapter I teased out the definition of 'repertoire' that I have adopted in this thesis, which not only includes the linguistic, as originally conceptualised by Gumperz, but also the semiotic resources that serve as records of mobility (Blommaert and Backus, 2013). The concept of 'repertoire' is central to the theoretical conceptualisation of this thesis.

Online, self-directed, out-of-class language learning is an under-explored area in the literature. As shown in the literature review in Chapter Two, it was found that most literature in this area has quite a narrow focus. Most research has tended to address themes about technology, motivation, learning strategies or the autonomy of learners. Seldom does it focus on the learning process from the perspective of learners. Although studies on OLLPs are always seen as a branch of CALL, they have actually evolved in different directions, and thus there is still no consensus on what they should be called in the literature. While OLLPs share some similarities with CALL and MALL, they should be treated as a separate research area in its own right because of its complexity and fluidity. On the one hand, OLLPs are structured like a textbook, with courses and lessons which have clear learning goals. On the other hand, they are not because they afford the freedom for learners to choose their own learning trajectories. The 'learning on-demand' nature of OLLPs is highly dependent on the design of the platforms, the affordances that they provide, and most importantly, the learners. Most of the time the platforms are used as stand-alone learning tools, but they could also be used to supplement classroom learning. All in all, learners are the ones to decide what role these platforms play in the learning process.

In order to develop a holistic understanding of how learners from different linguistic and cultural backgrounds use resources in their repertoires to learn Chinese in an online platform, it is necessary to draw on concepts from different



perspectives. In Chapter Three of the thesis I have discussed in considerable detail three relevant concepts which form the conceptual framework of this study: translanguaging, multimodality, and multilingualism. Each of them contributes to the thesis in different ways. First, adopting a translanguaging perspective can help uncover how learners use their multilingual and multimodal repertoires to make meaning and to make sense of the world. It is able to show how learners use their entire repertoire and transcend existing language boundaries and across writing systems to scaffold their language learning. The transformative nature of translanguaging transforms the form, meaning and function of the sign and thus highlights the need to go beyond the artificial divides of the different modalities of language learning. Second, from the lens of multimodality, the underlying assumption is that all communication is multimodal which involves the use of different modal resources to make meaning. Language is just one of the modes to make meaning, and therefore a multimodal approach to language learning is necessary and much needed. Methodologically, a multimodal approach can also add value to the analysis, expanding the scope from analysing language to the analysis of other modes such as image, colour, and gestures to get a more holistic view of the communication process. Third, decades of multilingualism research informs us that knowing more than one language is a resource rather than a hindrance to language learning. Being a multilingual means that a person can use his/her entire linguistic repertoire to learn a new language and to make meaning. These three perspectives are interwoven in the whole thesis for a holistic discussion of how OLLP learners engage in different learning practices.

The conceptual framework that I have used informs the methodology of the thesis, which is a combination of ethnographic tools (e.g. observation, interviews) and social semiotic multimodality. In Chapter Four of the thesis I have presented in detail how the collection of ethnographic tools that I have employed work in partnership with social semiotic multimodality, both in terms of data collection, and subsequently, in the data analysis stage (Dicks, Soyinka and Coffey, 2006; Dicks, Flewitt, Lancaster and Pahl, 2011; Kress, 2011; Domingo, 2012). In the same chapter I have also presented in considerable detail the steps that I took to collect and analyse the data, including the

selection of the platforms, recruitment of learners, and the selection of data collection and data analysis methods.

In order to understand how learners use resources in their repertoires to learn Chinese, I first had to understand the affordances provided by the platform. Using social semiotic multimodality as an analytical tool, I have discussed in Chapter Five how Memrise positions itself in relation to the learners (see Chik (2015a; 2015b) for a discussion on the use of positioning theory to analyse learning platforms), and what kind of pedagogical assumptions it holds. Through using language, images, colours, and other semiotic resources, Memrise positions itself as both an expert and an 'emphatic friend', at the same time conveying to the learners that language learning is fun. Through its design, it encourages learners to take ownership of their learning. Following this overview, I then examined five different modes that are used in Memrise: writing, speech, image, moving image and page layout, and presented the pedagogic work each mode does and their affordances in relation to Chinese learning.

In contrast to a lot of studies in the field of CALL and MALL where the focus is on the technology and how teachers can incorporate this kind of learning in both in-class and out-of-class settings, this thesis focuses on the learners and their experiences with using OLLPs. In Chapter Six I have presented an overview of the 11 learners that I followed in the study, and I sought to understand what kind of resources they brought to the learning environment. Through analysing semi-structured interviews, their thinking-aloud in the screen-recording footage, and all the other email correspondences that I had with them (see Chapter Four for a discussion of these methods), I mapped out the resources that they had in their repertoires, including the languages that they know, their records of mobility, as well as their language learning experiences. In particular, asking learners about their language learning histories has provided me with an insight of how and why certain languages are learnt, retained, or abandoned (Pavlenko, 2007; Chik and Breidbach, 2011). Through eliciting this data from all the 11 learners, it has been shown that all of them have a unique set of resources that make up their repertoires which

influence the way they use Memrise, and the resources that they use to learn Chinese.

Through analysing the screen recording footage, semi-structured interviews, as well as the analysis of the learners' repertoires, I have identified two learning practices that are of significance. One of which is 'learning to read Chinese characters' and the other is 'learning to write Chinese characters'. With regard to the first, Chapter Seven presented two case studies and illustrated in considerable detail how two learners created multimodal texts using the resources that are provided by Memrise, as well as using their entire linguistic repertoires. Using both social semiotic multimodality and translanguaging I was able to focus on different aspects of meaning-making. From a social semiotic multimodality point of view, I have focused on how the sign-makers shift meanings from one mode to another, how they analysed the original pedagogic material and transformed them into a new sign through which learning is done. This is one example of the transformative nature of learning (Kress, 2009; Bezemer and Kress, 2016). On the other hand, from a translanguaging perspective, I have been able to show through these two case studies that translanguaging adds value to the research by understanding not only the languages being used, but also the semiotic resources used which goes beyond language boundaries and across writing systems. This use of social semiotic multimodality and translanguaging resonates with the argument that I made in Chapter Four that a multiperspectival approach is a useful way to understand what learners do in this learning environment.

The second learning practice that I focused on was 'learning to write Chinese characters', which is a progression from 'learning to read'. In the two case studies that I presented in Chapter Eight, I argued that although learners were using online platforms to learn Chinese, they traversed between the use of online and offline resources. They brought with them learning practices that were associated with offline, classroom learning and applied them in the online learning context. Another argument that I made was that what was considered as 'copying' is actually a meaningful act in which new meanings are made. It reflects the agency and resourcefulness of learners in their selection of modal

resources to facilitate their learning, and it should be seen as a sign of learning. Again, through these two case studies, I have endeavoured to show how learning is a transformative engagement with the social world (Kress, 2009; Bezemer and Kress, 2016).

### **9.3 Summary of key findings**

This thesis has discussed a few important issues related to self-directed Chinese learning in online platforms. The most important finding of this thesis is that it shows how multilingualism can be used as a resource for language learning. The case studies of George and Neil featured in Chapter Seven, in particular, demonstrate how language learners make use of the languages that they already know to learn a new language. With a multilingual, multimodal repertoire at their disposal, these learners can use their entire repertoire when creating multimodal texts, which in turn serve as a learning tool for them to read and deconstruct Chinese characters. Through looking into the process of the creation of these multimodal texts, it is clear that having a multilingual repertoire is beneficial to language learning (see Chapter Seven for a detailed discussion of these two cases). Research on the benefits of multilingualism abounds, but this thesis has attempted to go one step further to demonstrate how multilingualism can be an asset rather than a hindrance to language learning by means of the lens of translanguaging.

Another important finding of this thesis is that it demonstrates how learning is transformative, which is shown in the four case studies featured in Chapter Seven and Eight of the thesis. In particular, the case studies featuring Valerie and Liz in Chapter Eight show how they referred to the pedagogic materials (i.e. the prompt) given to them and re-make their own learning material (i.e. the new sign), which is more than a 'copy' of the original. Both learners transform the original pedagogic materials and make new signs, while demonstrating their learning at the same time.

Lastly, I have argued that even though learners were engaged in online learning, offline learning practices can also be found in online learning spaces, and that there is a crossover between the online and offline learning practices.

In other words, the boundary between online and offline learning is imaginary. As demonstrated by the case study of Daniel in Chapter Five, Valerie and Liz in Chapter Eight, online and offline learning practices often influence each other.

Having revisited the key concepts in each chapter of the thesis, I am now going to explain how this thesis contributes to knowledge at three levels: the empirical, the methodological, and the theoretical.

#### **9.4 Contributions to knowledge – Empirical**

This thesis contributes to research on online, self-directed language learning, which is an under-researched area. One of the reasons that it remains under-represented may be that it is often difficult to obtain data about individual language learning, in which the learners involved do not belong to a language school or any other kind of institution. This study has analysed both the learning environment and the resources of learners in order to gain a thorough understanding of the affordances of the pedagogical materials, and the learners' interaction with these resources. By adopting a repertoire approach, I can also show what kind of resources learners possess, what resources they bring to the learning environment, and how they use their entire repertoire to facilitate their language learning. This thesis connects two concepts that are dominant in the contemporary world, but seldom explained in relation to one another: mobile technologies and mobile learners. This thesis shows how mobile technologies exert an influence on how people learn languages, and in reverse, how mobile learners create and support mobile technologies. In Chapter Seven, I have demonstrated through the two case studies how learners used translinguaging to scaffold their learning by creating multimodal texts. I have described and explained how they displayed their linguistic creativity and criticality with their entire linguistic repertoire (Li Wei, 2011a; 2011b; García & Li Wei, 2014). Studies on translinguaging abound, but this study is unique in the sense that it is able to show translinguaging at work in different modalities and across writing systems through multimodal transcription. The translinguaging process that these two learners engaged in was highly complex and multimodal which shows clearly why and how linguistic analysis is not sufficient in these circumstances, and that a multimodal view is needed to describe and analyse

how learners construct new knowledge that not only makes use of language, but goes beyond that. The thesis also extends existing work in social semiotics. The two case studies in Chapter Seven problematise the concept of 'mode'. In these examples, meaning is moved across 'languages' (English and Chinese) and across script systems (alphabets, characters, pinyin). Although in the language of social semiotics, this shift of meaning occurs within the same mode, i.e. writing, the meaning it carries and creates has transcended the boundary of mode. New terminologies are needed to describe this shift of meaning. Moreover, social semiotics is predominantly based on textual analysis, and this study has sought to expand it by looking at the relationship between text and situated practices, unpacking why and how pedagogic texts are transformed by the learners, and to make explicit the signs of learning that they demonstrate through this transformative engagement (Kress, 2009; Bezemer and Kress, 2016).

### **9.5 Contributions to knowledge – Methodological**

The case studies featured in the thesis show the importance of introducing a "multimodal turn" into language learning research. Block (2014) argued that there is a lack of attention of multimodality in applied linguistics research, which he called "a lingual bias". He called for more research looking at the role of embodiment and multimodality in applied linguistics, as they are essential to understand communication and meaning-making, both of which are at the heart of applied linguistics. In Chapters Seven and Eight of the thesis, although the commentaries of the learners were informative, only a partial meaning was conveyed. It is through a multimodal transcript that a holistic view of the situation emerges, and an analysis made. A lot of their struggles and uncertainty was shown not by what they said, but the way they positioned themselves. A good deal of it would have been lost had I not examined them multimodally. The multimodal transcripts in Chapter Seven are ample examples of how multimodality has the potential to add value to the research of multilingual language practices. It also serves as a model of how to do research in applied linguistics. A multimodal approach is needed to understand the complexity of communication (Block, 2014; Kress, 2015; Adami, 2017). This study is novel in the sense that not only does it inform research practices in

applied linguistics to include multimodality, but it also informs research practices in multimodality to include superdiversity. As explained by Adami (2017),

While the multimodality of communication is generally acknowledged in work on language and superdiversity, the potential of a social semiotic multimodal approach for understanding communication in superdiversity has not been adequately explored and developed yet – and neither has the concept of superdiversity been addressed in multimodal research (p.1)

Moreover, this study attempts to use video as the main source of data which enables the possibility to analyse communication in a multimodal way. Although the potentials of using video as a research tool is widely understood, challenges associated with data collection, transcription and analysis still abound. As Heath and Hindmarsh (2002) commented, “[t]his curious absence of video as an analytic resource derives perhaps more from the absence of a relevant methodological orientation than a lack of interest in exploiting sociological possibilities of video” (p.104).

## **9.6 Contributions to knowledge – Theoretical**

This thesis centres around three concepts – translanguaging, multimodality, and multilingualism. Together they form the theoretical framework of the study. While these concepts are well-researched in their own rights (see Chapter Three for a review of these concepts), there have not been any studies that connect them in a way that has been done in this study, allowing these concepts to cross theoretical boundaries and complement one another in both the conceptualisation stage, the data collection stage, as well as the data analysis stage. These three areas of knowledge are interwoven in this thesis to form a coherent narrative to explain how learners use their resources to learn Chinese in an online platform.

Research suggests a strong connection between multilingualism and translanguaging (see works of Li Wei, Ofelia García, Jasone Cenoz and the like), but the connection between multilingualism and multimodality has been vague. This vagueness is primarily due to the lack of dialogue between the two disciplines. While multilingualism is traditionally situated in the field of applied linguistics, it has been said to be linguistically-focused. On the other hand,

social semiotic multimodality, with its origin in the theory of semiotics, did not have a clear perspective on language to start with. While Saussure suggested that linguistics is just one way to make meaning, he also referred to language as “the most important” of all means of meaning making (Saussure, 1983:15). Later on, as social semiotic multimodality evolved, the stance is clear: language is only one part of the semiotic, and it has equal status to the other modes of representation. Multimodal research has been predominantly focused on the so-called ‘non-linguistic’, such as images, music, colours, gestures, gaze, and so on. Multilingual interactions have not been adequately explored in multimodality. As society is becoming more diverse, or superdiverse, as Vertovec (2007, 2010) described it, researchers in multimodality now have to re-examine their toolkit so as to better explain communication in superdiverse, multilingual contexts where interlocutors share few linguistic and semiotic resources with each other (Adami, 2017).

In the same vein, the notion of translanguaging is not without its criticisms. It is frequently misunderstood as focusing on language alone because of the ‘linguaging’ element in translanguaging. However, by having ‘language’ in the term, we are able to highlight the grammatical and systematic nature of communication, with the use of multiple semiotic resources. There is no evidence in the literature to suggest that translanguaging implies a sole focus on language. At first glance, social semiotic multimodality and translanguaging seem to have a lot in common. For instance, both approaches regard language as one of the modes to make meaning, and so both suggest that in order to understand communication in its entirety, we should look at other semiotic modes as well. However, social semiotic multimodality and translanguaging have different roots. While social semiotic multimodality originated from semiotics, the study of signs, it is deeply rooted in the sociocultural tradition. On the other hand, translanguaging started off as a cognitive perspective which is concerned with the cognitive and mental capacity of learners. In other words, while social semiotic multimodality focuses on the material and their representation, translanguaging focuses on interpretation. Social semiotic multimodality places emphasis on the orchestration of modes, whereas



translanguaging places emphasis on the fact that meaning-making goes beyond the boundaries of modes.

All in all, this research is situated in the area of applied linguistics and multimodality, and part of its purpose is to enlighten research practices in both areas. By attempting to use three theoretical perspectives in this thesis, I hope I have demonstrated a methodological approach which provides a multiperspectival way of looking at a social phenomenon. Quoting the words of Nietzsche (1968), we should learn “how to employ a variety of perspectives and affective interpretations in the service of knowledge” (p.555). Communication is multimodal, multilingual, multi-faceted and complex. It is only through multiple lenses that we can better understand it. In this thesis, I have explored the reach of these three concepts, whose relationships have been vague. In this section I have discussed the contributions to knowledge of this thesis at the empirical, methodological and theoretical level. I now reflect on the limitations of the study.

## **9.7 Limitations of the study**

### *9.7.1 The research design*

I consider this thesis as predominantly an empirical study with the aim to find out how multilingual learners use the resources that they possess in their repertoires and learn Chinese in an online, self-directed context. In such a case, the research design is of utmost importance. However, I must admit that some aspects of it are not executed as well as I would have liked due to a subsequent change of research focus. This study started its life as a multimodal study of learners' interactions with other members of the community in the platforms through the use of virtual ethnography (Hine, 2000). However, due to numerous practical infeasibilities, I had to abandon this initial plan and change my focus to individual, self-directed language learning. While it made the study more unique and hopefully original, it presented problems because it was both difficult and time-consuming to focus on individuals' learning experiences.

Another issue was that in the third year of my research, I decided to recalibrate my theoretical focus, from a greater focus on multimodality, and on how

learners engage with the platform and show signs of learning, to a greater focus on translanguaging, which concerns the use of multilingual, multimodal repertoires of learners. This shift in focus was due to two factors: the first one being that when I was studying full-time at UCL Institute of Education, I attended many seminars in the field of applied linguistics, and topics such as multilingualism and superdiversity caught my attention. I began to relate these concepts to my own work, and later on decided to change the focus of the thesis so I could address these issues in greater depth. The second reason for the change of focus is informed by the data that I collected which spanned from my second to the third year of my research. When I started analysing the data, I saw the rich linguistic and semiotic resources that these learners had, and the creative ways that they used these resources to learn Chinese. I felt that I could only do justice to the richness of the data by changing my focus, from the engagement between learners and platforms, to the multilingual, multimodal repertoires of learners. Making changes is, as I see it, a good thing because it shows my development as a researcher. However, inevitably, changes are always risky. This change of focus rendered some of the data 'unusable' because translanguaging was not incorporated in the research design when I originally collected the data. Had I decided to use translanguaging at an earlier stage, I would have been able to ask questions during the interviews that tied in more closely to my research questions and would have been able to collect more data related to the learners' repertoires. The analysis presented here is somehow constrained by this limitation. Furthermore, a change of focus had an effect on the selection criteria of participants. Admittedly, had translanguaging been incorporated earlier in the research design, I would not have preferred L1 speakers of European languages. On the contrary, I would have preferred L1 speakers of Asian languages, especially Japanese and Korean speakers, because they would be likely to demonstrate how they used their L1 as a resource to learn Chinese, due to the similarities between Japanese or Korean and Chinese.

### *9.7.2 Data collection and analysis*

The data collection method is largely informed by multimodal social semiotics, which places emphasis on the orchestration of modes. Therefore, I am more

interested in how modes combine to make meaning. Eye-tracking and cursor-tracking could have been used in order to help me understand more about how different modes interact and orchestrate with each other. Nevertheless, during the data collection stage, there was concern that adopting eye-tracking and cursor-tracking would create an imbalanced focus on these two modes due to the vast amount of data that could have been generated by this tracking software, so it was not considered in order to keep the analysis of the different modes more balanced. Furthermore, eye-tracking and cursor-tracking involve the use of expensive equipment, which has to be installed on the computers used for data collection. As this study examines how learners learn Chinese in an out-of-class context, in practical terms, it went against the aim of the study to invite participants to do the study in a controlled environment where there would be a computer installed with the tracking devices, and it was also impractical to install the equipment on each participants' computers. Based on these considerations, eye-tracking and cursor-tracking software devices were not used.

Furthermore, I relied a lot on the thinking-aloud method and interviews to elicit experiences and feedback from learners. However, following the social semiotic framework strictly, both thinking-aloud and interviews only offer a partial representation of reality, which is language, specifically in English. It does not allow a multimodal representation of events, and most learners had to use a second language both in the interview and thinking-aloud. This may have had an effect on the authenticity of data collected. Indeed, for two learners who are featured in the study, the data that I collected were very limited because of the language barrier. This language barrier was accentuated by unstable Internet connections and poor sound quality in some of the Skype interviews with them. Furthermore, the thinking-aloud protocols could lead to the criticism that learners were performing, as in real-life people would seldom verbalise their inner speech, or having to explain to another person what they are doing, or why they are doing something. However, as mentioned in Chapter Four, it is not the intention of this study to collect naturalistic data which shows the objective reality, and therefore the performative nature of learners would not have been a limitation.

In terms of the multimodal transcription, a more fine-grained version could have been done to show clearly the relations between modes at a particular moment in time. However, it is a very challenging thing to do, as this was just one part of the thesis. In particular, I find that transcribing cursor movement was the most challenging part because it happened very quickly while the learner was speaking, but it was significant. A compromise is to transcribe it in the 'speech' column in an attempt to show its relation with speech. Nevertheless, a better way to represent cursor movement could have been sought.

In any kind of ethnographic research, the authenticity of data is always an issue of concern. Researchers express concerns on the use of recording devices, and their effect on participants' behaviour in the data collection process. Although every effort is being made to capture 'naturalistic' behaviour, it is indeed difficult, if not impossible. For instance, due to the limitation of the screen recording software that it could only be used to record the screen of computers, I could not record learning done on the Memrise app which was a common practice for a lot of learners. Learners also reported that they had to change their normal learning schedules because they needed to find a computer to do the recording. Furthermore, the performative nature of the participants must not be ignored. It was apparent that participants were aware of the fact that the video would be watched by me. Participants self-reported some changes of behaviour, for instance, finding a quiet room for the recording, making sure that they look presentable, and lastly, my speculation is that they are less likely to practise saying the words out aloud lest they are being judged.

Another issue that I had was that the data collection period was too short. As mentioned before, this study was originally framed as a virtual ethnographic study in which I was to have positioned myself as a participant and observed the community for a period of three months. However, it was not possible because of the following reasons: first, I was constrained by the technology. I surveyed different free screen-recording software, and none of them could be used for free for more than one month. This set a limitation of the time of my observation. Second, at the initial stage of participants' recruitment, I had

difficulty recruiting participants who were willing to be observed for such an extended period of time, and so for practical reasons, the observation was shortened to one month. In hindsight, this might have indirectly contributed to my change in research focus to translanguaging, as it made more sense to focus my attention to analyse particular learning practices, rather than involve myself in a prolonged observation of engagement patterns between the learners and the platform.

### *9.7.3 The ephemerality of online data*

During the time when this thesis was being written, Memrise had been changing its interface regularly. Sometimes the changes were minor, but sometimes there were major changes to the colour scheme and the placement of the different objects on the screen. For instance, when I compared the screen grab made in January 2014 (see Figure 9.1) with that of March 2016 (see Figure 9.2), it could be seen that while the contents were very similar, subtle changes were being made. For instance, the font used in the January 2014 version resembled a Chinese calligraphy brush, while the March 2016 font was a standard, computerised font. All these changes affected the resources available for learners to use, and learners' decisions about whether to use those resources or not. However, based on practical considerations, I decided to base my analysis on the version in March 2016. Moreover, during the course of my research, one of the online platforms that I examined, Livemocha, ceased to operate.

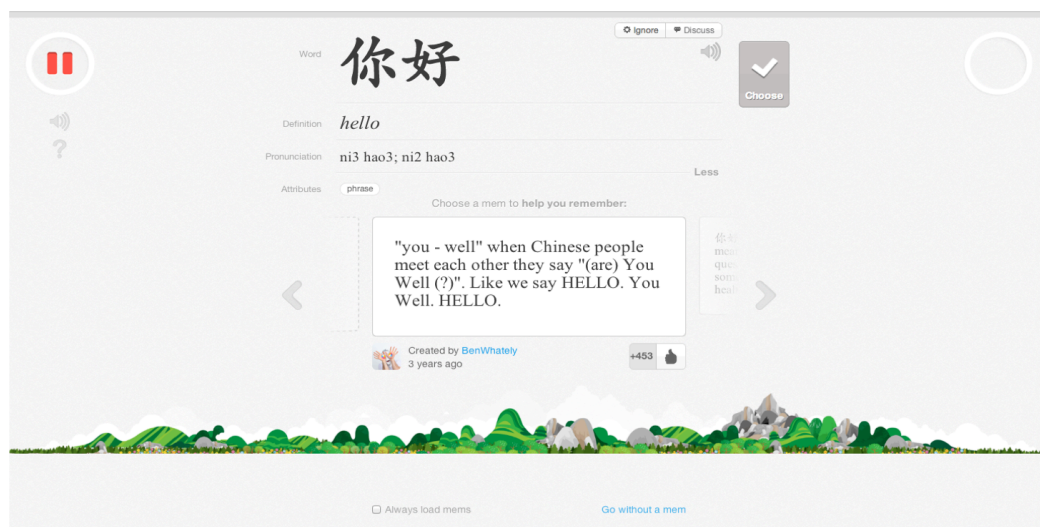


Figure 9.1: Memrise in January 2014

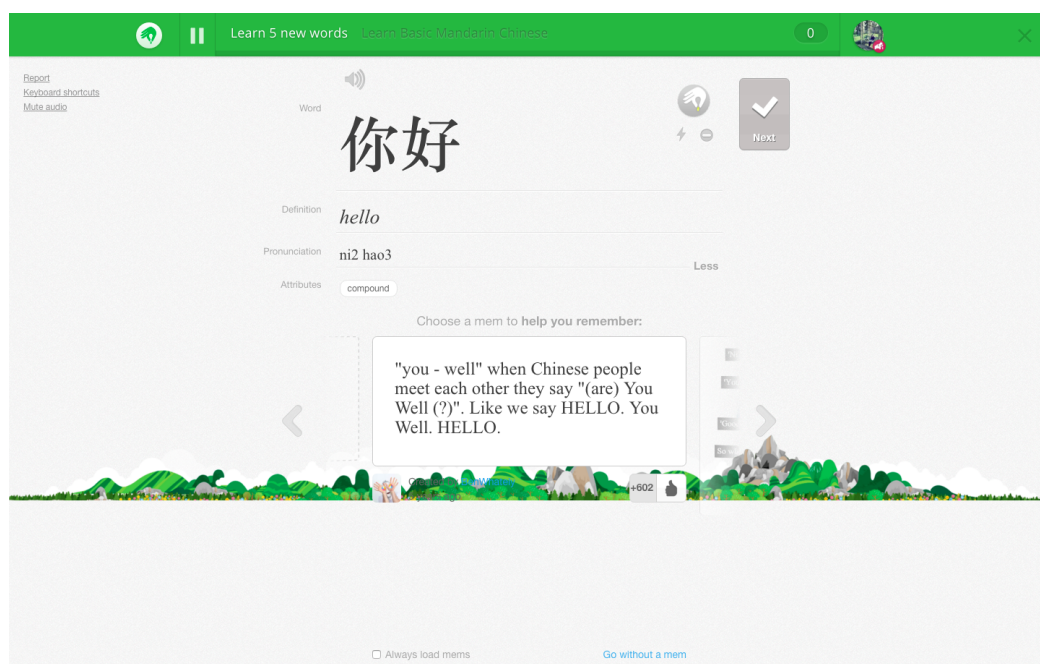


Figure 9.2: Memrise in March 2016

In this section I have provided a candid account of the limitations and shortcomings of this research, and explained them to the best of my knowledge. In the next section I outline some directions for future research and conclude the thesis.

## 9.8 Future Directions

In this thesis, I have demonstrated how learners use their multilingual and multimodal repertoires as a resource for language learning primarily through

analysing the multimodal texts that they produced. For future research, it is perhaps worth taking a multimodal narrative approach (Barkhuizen, Benson and Chik, 2014) so that learners are able to express themselves through different modes, not only using language. There are many ways to use these multimodal narrative texts. As the authors suggested, multimodal texts can be used either as a subject of analysis, or as an elicitation tool to help learners to reflect on their experiences. Furthermore, as mentioned earlier in this chapter, more research in the area of out-of-class, self-directed language learning is needed. This is a relatively new phenomenon which needs to be researched.

Using video as a research tool is still at its infancy due to practical considerations and the complexity of data transcription and analysis (Heath and Hindmarsh, 2002; Heath, Hindmarsh and Luff, 2010). However, videos offer a lot of potential to help us understand how events unfold in real time, and it provides the chance for researchers to view an event repeatedly for further analysis. More research should therefore utilise the affordances of videos.

Lastly, a more sustained dialogue between applied linguistics and multimodality is needed. This is particularly relevant in a world presently characterised by heterogeneity, mobility and complexity. As Adami (2017) observed, increasingly, in a lot of communicative contexts, people share few linguistic and cultural resources in common, and therefore greater functional load is assigned to 'non-linguistic' modes such as pointing, gestures, gaze, and so on. It is essential to take into account these other modes of communication as well to form a comprehensive understanding of these communications. I hope in some way this research may make a contribution to opening up that dialogue.

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# Appendix 1:

A screen grab of the WordPress blog that was used for participant recruitment. At the bottom of it is a form asking for basic information of the potential participants.

The screenshot shows a WordPress blog page with the following content:

## Research on Online Language Learning Platforms

### Private: Recruitment of research participants

**Language learning in online platforms: A multimodal study of English speakers learning Chinese**

Did you know that you can learn Chinese on the Internet for free? I am a doctoral student at the UCL Institute of Education in London. I am doing a PhD on online language learning platforms and I hope to recruit participants to help with my study. The study involves the use of three platforms: Livemocha, Memrise and ChinesePod.

**Livemocha**

**Memrise**

**ChinesePod**

By signing up on the above platforms, you will have access to a variety of Chinese classes which you can take at your own pace. You can also interact with other learners or native speakers of the language to practice your skills.

This PhD study aims at exploring the role of online language learning platforms in an informal learning environment, with a focus on teaching and learning Mandarin Chinese as a foreign language.

#### Who can take part in the research?

You can take part in the research if you are:

- Interested in or already learning Mandarin Chinese as a foreign language
- Aged 18 or above
- A native-speaker of English or other European languages

#### What are the benefits for you to take part?

By taking part in this research project:

- You get a chance to learn Chinese for free
- You will be supported with using the technology
- You will be encouraged to reflect your learning
- You can help language teachers to understand how people use online language learning platforms

#### What will happen if you take part?

If you decide to take part in the research, here are the things that you will do:

- Attend a Skype briefing session where you will be assisted with using the technology
- Record your lessons using screen-recording software at your leisure
- Reflect on your experience and thoughts
- Attend follow-up interviews on Skype

The duration of the study is one month. You will have finished four or more Chinese lessons by participating in the study.

#### Right to withdraw from the study

You can decide if you want to take part and, even if you say 'yes', you can drop out at any time or say that you don't want to answer some questions.

#### How do I take part in the study?

There are two ways you can take part in the study. You can either:

- Fill out the form at the bottom of the page, or
- Send me an email at [who01@ioe.ac.uk](mailto:who01@ioe.ac.uk)

#### Further questions?

If you have any questions, please feel free to contact me at [who01@ioe.ac.uk](mailto:who01@ioe.ac.uk).

The project has been reviewed by the Research Ethics Committee.

Thank you for reading this.

**Name (required)**

**Email (required)**

**Where are you based in? (required)**

**What's your first language? (required)**

**What other language(s) do you speak? (required)**

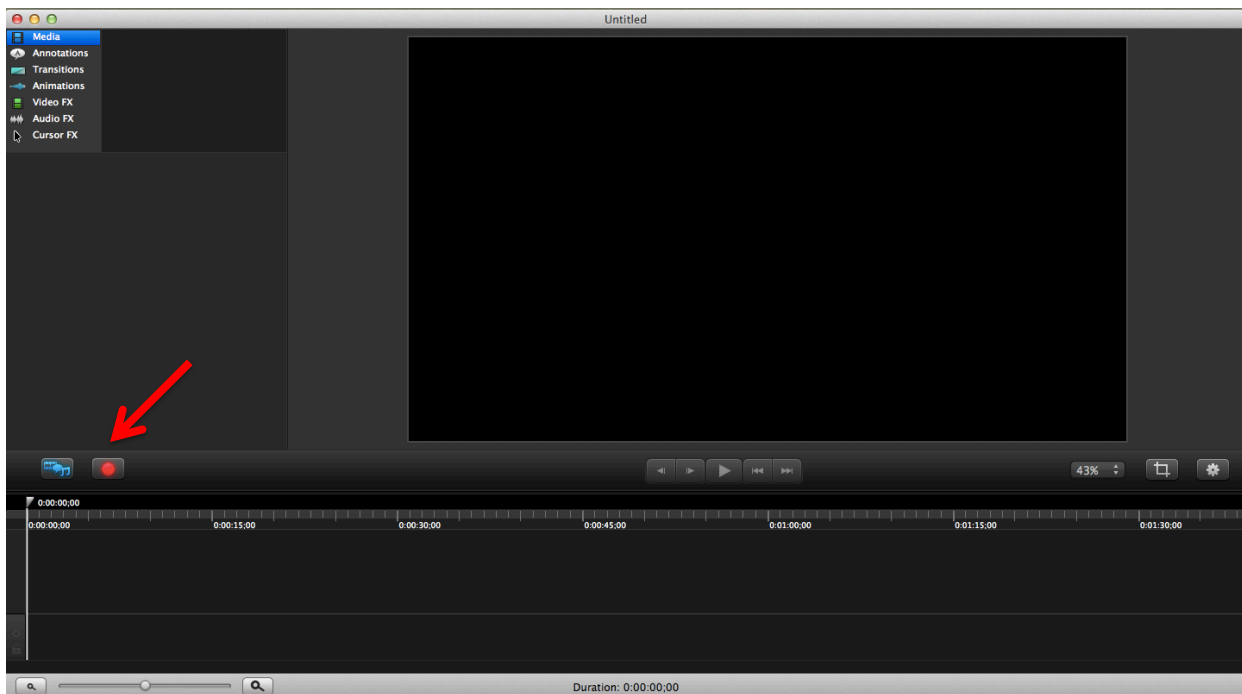
**Are you a user of Livemocha/Memrise/ChinesePod? (required)**

**If yes, which one(s) are you using?**

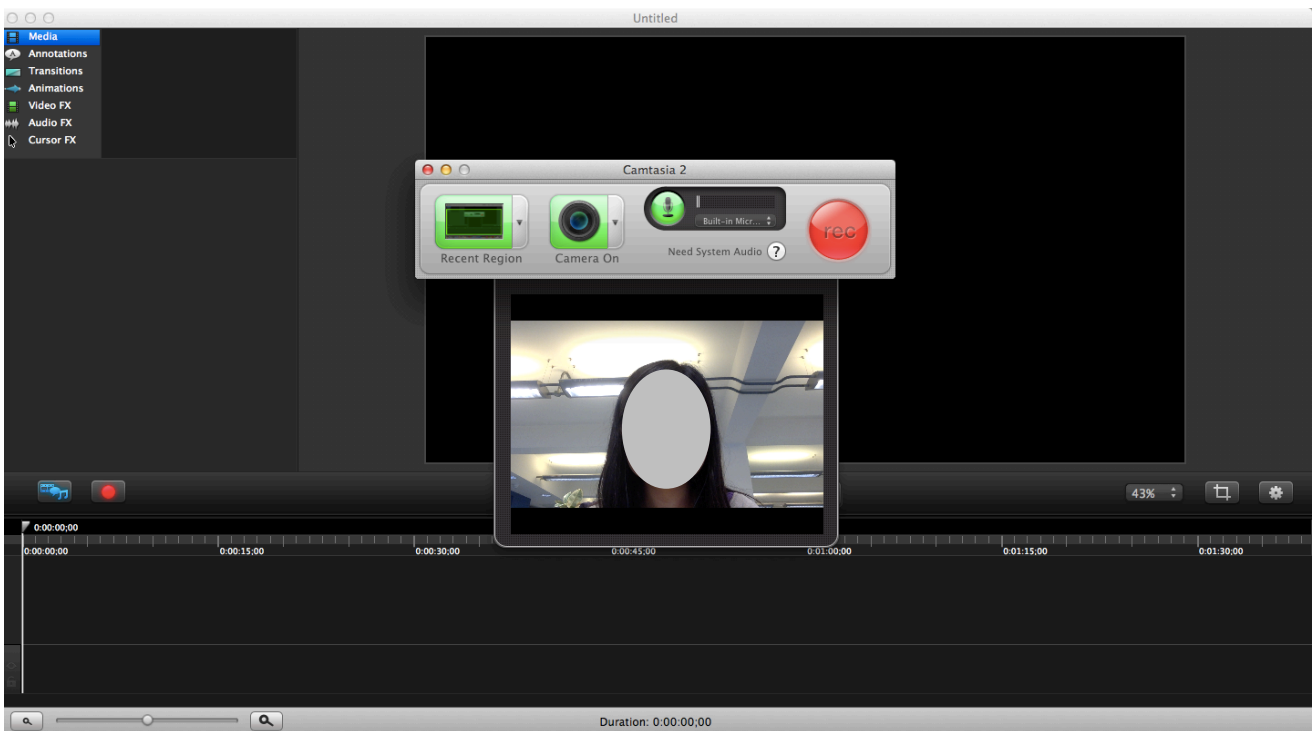
**SUBMIT**

## Appendix 2: Screen recording using Camtasia (A guide sent to recruited learners)

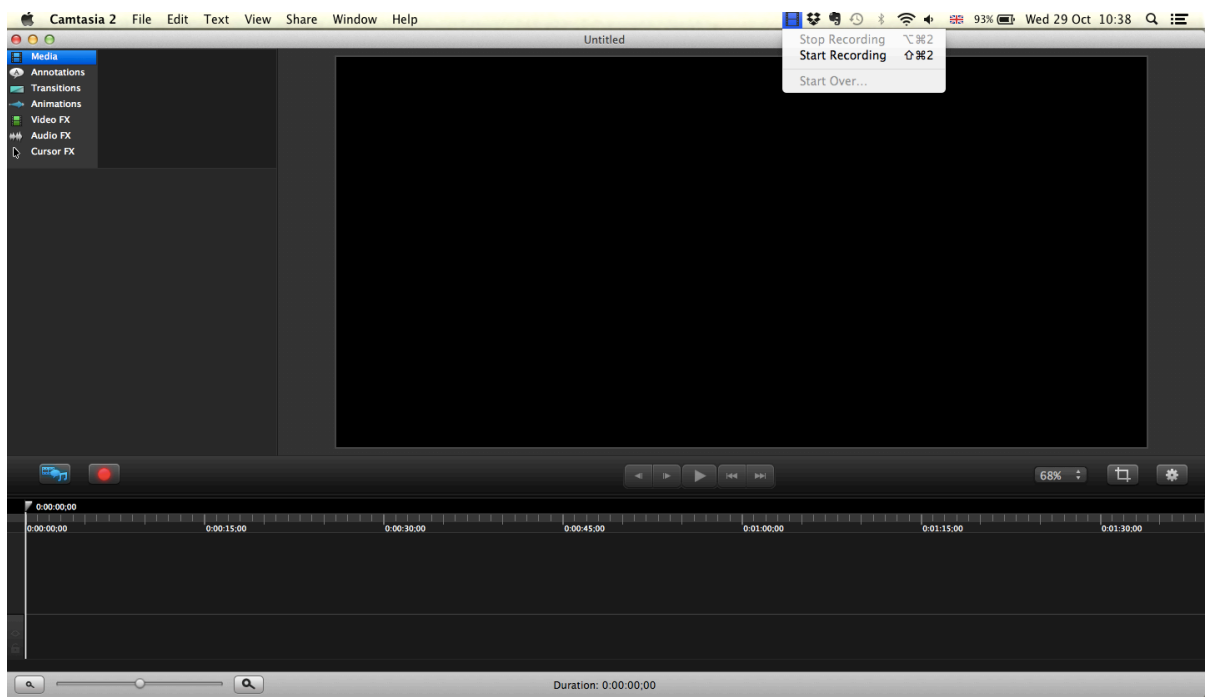
This guide is made using Camtasia 2 for Mac, but it works in a similar way in Camtasia Studio for Windows



1. Click the red recording button to start the recording menu



2. In the recent region drop down menu, you can select to record a customised part of the screen  
Make sure the three green buttons are lit up and your face is clearly visible on the screen  
Press the red 'rec' button to start recording



3. Press 'Stop Recording' on the top right hand corner of your screen when you want to stop recording