Literacy practices and heritage language maintenance: A case study of three Cameroonian adolescents

# الممارسات الخاصـة بتعليم مهار ات القر اءة و الكتابية و علاقاتها بالخلفية التر اثية للغة: در اسة حالة لثلاثة طلبة مر اهقين من دولة الكاميرون 

## Marie-Therese Endale Lottin

Dissertation submitted in partial fulfilment of the requirements for the degree of Master of Education in Teaching English to Speakers of Other Languages (TESOL)

## Faculty of Education

Dissertation Supervisor

Dr Yasemin Yildiz

April 2015

## DISSERTATION RELEASE FORM




I warrant that the content of this dissertation is the direct result of my own work and that any use made in it of published or unpublished copyright material falls within the limits permitted by international copyright conventions.

I understand that one copy of my dissertation will be deposited in the University Library for permanent retention.

I hereby agree that the material mentioned above for which I am author and copyright holder may be copied and distributed by The British University in Dubai for the purposes of research, private study or education and that The British University in Dubai may recover from purchasers the costs incurred in such copying and distribution, where appropriate.

I understand that The British University in Dubai may make that copy available in digital format if appropriate.

I understand that I may apply to the University to retain the right to withhold or to restrict access to my dissertation for a period which shall not normally exceed four calendar years from the congregation at which the degree is conferred, the length of the period to be specified in the application, together with the precise reasons for making that application.


## Table of Contents

Chapter One - Introduction ..... Page
1.1: Background of the study ..... -6
1.2: Research focus ..... $-7$
1.3: Research questions ..... $-7$
Chapter Two -Theoretical framework and literature review
2.1: Literacy Practices ..... 8
2.2: Bilingualism and Multilingualism ..... $-9$
2.3: Linguistic Ethnography ..... 10
2.4: Heritage Languages ..... 11
2.5: Language dominance \& language attrition ..... 12
2.6: Digital Literacies ..... 12
Chapter Three - Methodology
3.1.1: Context ..... 15
3.1.2: Subjects ..... 15
3.1.3: Methods of data collection ..... 15
3.1.4: Linguistic biography ..... 16
3.2.1: Instruments
3.2:2: Literacy diaries ..... 16
3.2:3: Questionnaires ..... 17
3.2:4 Lexical retrieval tasks ..... 18
3.3.1: Steps of implementing the study
3.3.2: Data findings ..... 18
3.3.3: Data analysis ..... $-23$
3.3.4: Patterns and themes ..... 26
3.3.5: Limitations of the study ..... 27
Chapter Four - Discussion
4.1: Pedagogical implications ..... 32
4.2: Future research and Conclusion ..... 33
References ..... $-27$
Appendix A ..... 40
Appendix B ..... 41
Appendix C ..... 42
Appendix D ..... 43
Appendix E ..... $-44$
Appendix F ..... 45
Appendix G ..... 46
Appendix H ..... 48
Appendix I- ..... 49
Appendix J ..... 51
Appendix K ..... 53
Appendix L ..... 54
Appendix M ..... $-55$
Appendix N ..... 56
Appendix 0 ..... 60


#### Abstract

The study reports on the regulated and unregulated literacy practices of three adolescent children who all interact within a multilingual context in which we examine these practices to ascertain which of the language. The Subjects speak, understand and/or are familiar with at least 10 languages between them (English, French, Pidgin English, Spanish, Cameroonian dialects, Latin, German, Arabic, Chinese and Mandarin). We undertook an ethnographic case study by using literacy diaries and lexical retrieval tasks to obtain qualitative data which describes whether the knowledge of L1 and L2 and other languages is a significant predictor of the accuracy of lexical access. We assumed that the prevailing sociolinguistic and cultural environment in which the Subjects live will affect which language(s) make up their memory store. We also discuss heritage speakers in the light of differences in language input and learning experience which determine the behavior manifestations of linguistic knowledge and aptitude in regulated and unregulated contexts through using an ethnographic case study. Ultimately, our aim is to corroborate the bank of current literature which is seeking to make this aspect of psycholinguistics and sociolinguistic analysis an area of research in its right. We also interpret our findings as evidence that L1 attrition and successful competence in L2 and heritage languages are dependent on a combination of attitude, motivation and other personal background variables.


## Abstract

ملخص
تهذ هذة الدراسة إلى الكثف عن الممارسات المنتظمة وغير المنتظمة الخاصة بتعليم القراءة والكتابة لثالثة أطفال في سن المراهقة موجودون في بيئة تعلم متعددة اللغات حيث نتحث الدراسة من مدى تأثير كل لغة على هؤلاء الطلبة. المواد الدراسية التي يتعرض لهاهؤلاء الطلبة تحدثأ أو فهماُ تتضمن عشرة لغات مختلفة من ضمنها ( الغة الإنكليزية - الفرنسية- الإنجليزية البدجينية - الأسبانية - الههجات الكاميرونية - اللاتينية - الألمانية - العربية - الصينية - المندارين). ما قدمته تلك الدراسة هو دراسة حالة انثولوجية بإستحدام الأجندة الدراسية اليومية والمهام المعجمية للحصول على بيانات نوعية عما إذا كان هناك تأثير للغة 1 واللغة 2 وبقية اللغات على الأهمية القصوى للراسة المفاهيم المحمية. فنحن ومن خال تلك الدراسة على يقين بأن المواد الدراسية الني تتضمن مجموعة متعددة من اللغات ضمن بيئة تعلم واحدة، سوف نسيطر أحد تلك اللغات على الفهم العام للطالب وتثقق طريقها نحو تميز الطالب بتللك اللغة وحفظها في الذاكرة. كما قمنا بدراسة ومناقشة التاريخ التقافي للمتحدثين بلغة ما على إختلاف اللغات التي يتعرضون لها والتي من شأنها تحديد الكفاية اللغوية ضمن ممارسات منتظمة وغير منتطمة. هدفنا هو نوظيف المراجع الناريخية من أجل نوثيق الصلة بين علم اللغة النفسي والتحليل الإجتماعي اللغوي. وقمنا أيضا بتوظيف ما توصلنا إليه من نتائج كدليل على أن أكتساب اللغة الأولى والنجاح في اللغة الثانية واللغات النقافية والتزاثية يعتمد بشكل كبير على الإتجاهات والميول والتحفيز والمتغيرات الثخصية الأخرى

## Chapter One - Introduction

This research work is a case study reporting the regulated and unregulated literacy practices of 3 adolescents with a view to ascertaining which language dominates their mental lexicon by using qualitative research techniques with more than one data source and by so doing, investigate the sociolinguistic factors which affect their linguistic competence. Chapter One outlines the background of the study and defines the research focus. Chapter Two provides the theoretical framework and literature review while Chapter Three describes the methodology. The research findings are presented in Chapter Four and we support the results of other studies with specific examples in our discussion as well as make some recommendations in the last chapter.

## 1.1: Background of the Study

There have been many advances in technology and the global economy has resulted in many cultural and linguistic changes as the search for fulfilment in these areas has meant that more and more whole communities and individuals have tended to move around due to various reasons. Diverse linguistic studies have highlighted these changes by noting that 'when people migrate, they cross not only geographical borders but also cultural and linguistic ones' (Dewaele \& Stavans - 2014). Bialystok (2001) emphasized the view that 'linguistic diversity should be actively cherished for the wealth of personal, social and economic benefits it brings to individuals and communities rather than simply tolerated or worse still, ignored or suppressed'. It has also been shown that bilingualism has a substantial influence on the language and cognitive processing of speakers who know two or more languages and use them regularly (Bialystok, Craik, Green and Gollan, 2009). As mentioned above, many recent descriptive research, case studies, sociolinguistic and psycholinguistic studies as well as classroom research have focussed on language acquisition differences between monolingual and bilingual learners as well as on the question of evaluating the effects of knowing more than two languages on the cognitive processing and metalinguistic skills of children on the one hand and adults on the other. To this researcher, there seems to be much less abundant literature on the cognitive performance of adolescent bilinguals as they continue to maintain their L1 and acquire their second, third and/or more languages. Following the realisation that bilingualism is fast becoming the norm rather than the exception among many language communities in the last decade, it is inevitable that these issues have come back into sharp focus and pedagogical researchers seek to gain more insight into their potential impact on current teaching trends and practices.

Even more recent reviews further triggered the interest of this researcher in carrying out this case study. Writing in a recent special issue of the International Journal of

Multilingualism, editors Eisenchlas, Schalley and Guillemin (2015) shed light on the relationship between multilingualism and literacy and on dominant forces that shape it by highlighting their conviction that 'individual and societal interests can be furthered by [the] re-examination of language policies and attitudes in the light of current research findings, and by recognising the so-called minority languages are significant [ ] in our multilingual multi-ethnic societies'.

This research therefore situates itself in the body of work on heritage language acquisition (Brinton et al. 2008; Polinsky \& Kaga 2007; Montrul 2008a) that is collectively enabling the formulation of theoretical models and methodological designs borne from examining language contact and change (based on the nature of second language acquisition models already renowned) from the point of view of formal linguistic and psychological perspectives.

## 1.2: Research Focus

Following on Montrul's study (2012) which concluded that the linguistic knowledge portrayed by L2 learners and heritage speakers is 'profoundly shaped by experience', the aim of this study is partly to engage in a small case study which might add some value to the mounting knowledge of information about ethnography as an important method of collecting data and to serve as a vital supplement to certain aspects of quantitative research. We examine the regulated and unregulated practices of three Subjects with a view to figuring out what effect the language background in which they grew has on their mental lexicon; pointing out what linguistic strategies they relied on to carry out one free and one controlled lexical access task. The desire here is not to present a set of findings that could be generalized but an endeavour to draw out themes and patterns to support current literature on the subject.

## 1.3: Research questions

This study will focus on 2 questions: 1) Are target languages maintained by subjects in regulated as well as unregulated contexts? 2) Which language dominates the subjects' mental lexicon? Particular attention is paid to unregulated contexts as we explore the first research question through the compilation from the literacy diaries. We will also use a free and a controlled task for lexical access and retrieval to provide some answers to RQ2.

## Chapter Two - Theoretical Framework and Literacy Review

The study of the literacy practices and language behaviours of different groups of individuals speaking multiple languages has been going on in the field of applied sociolinguistics for a while now with much light shed on the complexities involved in making generalized commentaries and advancing theories about literacy development in the wake of changes in the definition of literacy to embrace a greater understanding of the pervasive nature of media and texts in the twentieth century.

## 2.1: Literacy Practices

Jackie Marsh (2003) reports on the need to improve the curriculum in such a way that home and school literacies for nursery age children reflect the changes away from traditional literacies which focussed on print and picture books to improvements and technological innovations, different media texts and other multimodal meaning-making forms. Similarly, Boudreau (2005), while seeking the parental perspective on early literacy home practices of preschool children, pointed out that this is an important starting point for identifying early skills development in this area. He observed that the linguistic and cultural background of the families have a significant effect on this development. Although the study focussed on comparing the home literacy practices of pre-school children with language impairment and those considered 'normal' in terms of language development, it supported the validity of collecting information from multiple sources, gathering evidence from observations in a variety of naturalistic contexts to provide insight into the factors that hamper or enhance literacy development at different stages. Again, discussing parental involvement in the literacy development using media texts, Marsh and Thompson (2001) argued that because popular culture and the media are deeply entrenched in the daily home literacy lives of children, formal educational institutions must not discard these informal sources of information since, they maintain, "it is time to firmly embed the popular culture and media texts children encounter in home and community into schooled literacy practices if we are to move the disparate elements in children's worlds a little closer together".

A series of research studies on adolescents have also highlighted the mismatch between school practice and out-of-school literacy experiences. The bulk of these posit that bridging this gap will enhance the motivation skills and classroom reading engagement of students. A study which seemed to confirm that students' at-home literacy practices were not reflected in school practices was one carried out by Ladbrook (2008) which concluded that failure to navigate this divide will be detrimental to motivation and success in reading for the 'digikids' of this century. In our case study,
we look at the literacy practices of 3 adolescent kids for a period of one week in regulated and unregulated contexts.

## 2.2: Bilingualism and Multilingualism

Early language development does not happen in a vacuum. De Houwer (2009) pinpoints that bilingual language development is a gradual process and although there may be variations in when learners can utter certain things, this variation exists irrespective of whether one or two languages are being acquired. The potential interconnectedness between developing language and literacy skills across the L1 and the L2 has long been recognized in the work of many linguists where a sizeable body of work has provided evidence that skills in the L1 such as phonological awareness, word reading, decoding, vocabulary knowledge, oral language skills and general reading proficiency can be transferred into the L2. Research evidence is fairly strong that people who begin the second language at an early age will eventually gain native-like fluency. Cummins (1978) developed what he called the Linguistic Interdependence Hypothesis which affirms that it is possible to positively transfer some aspects of one's L1 in the acquisition of L2 provided the learner has had substantial exposure to certain aspects of knowledge and abilities prior to the onset of the development of second language in an educational environment, for example. According to another research, bilinguals acquire skills and abilities with the need to satisfy specific communication situations like code-switching between languages in a systematic way or specific preferences like using certain grammatical features dictated by social constraints (Meisel, 2008). In support of Cummin's hypothesis mentioned above, more recent research also shows that children who secure a good foundation in their first language, including sound literacy development, will have more self-confidence and consequently less difficulty in acquiring subsequent languages (Lightbrown and Spada, 1999). Conversely, Lightbrown and Spada also hold the view that older children whose first language has been developed and maintained and who are undergoing an educational program whose aim is to improve basic communication skills will benefit from learning second and subsequent languages at a later rather than at an earlier stage. Language learning, however, does not occur simply through constant imitation and practice. Contrastive analyses by various researchers have shown that second language learners go through developmental sequences that are similar to those experienced by first language learners. Selinker (1972) identified what he called 'inter-language transfer' as one among diverse other factors which affect second language acquisition. Inter-languages, he added, are systematic interferences that constantly evolve as learners gain more language input and subsequently modify assumptions about the second language. Proponents of communicative language teaching approaches likewise agree that languages are not learned by a steady accumulation of skills and abilities but much like in the monolingual acquisition model, the second language learner will acquire the language in developmental stages. Notwithstanding this, discussions are still very wide-open about whether bilingual acquisition is notably typified by cross linguistic influences or whether it moves along independently with the acquisition of each language. More research in the last 2 decades on linguistic development in a multilingual setting has focussed on debates with varied opinions
emerging on this issue. This research study situates itself amidst the current debate by observing the literacy practices of subjects who are living in a multilingual setting to discuss how this affects the said practices in regulated and unregulated contexts.

## 2.3: Linguistic Ethnography

Ethnography, a term used to define descriptive accounts of the life of remote nonliterate societies in the 50s emerged from studies in the field of anthropology, binding the two pursuits together and accommodating them under the umbrella of 'cultural anthropology' in the United States. Through the years, the study subjects have gradually been narrowed down from exclusive primitive to urbanized communities although there were still the tilt towards research carried out in distant areas where knowledge of local languages and a lengthy time spent to complete the fieldwork were both pre-requisites. In recent times, amidst conflicting definitions from notably British and American anthropologists (Radcliffe-Browne quoted in Wolcott, 2008), ethnography and anthropology are almost interchangeable with the former ideally suited for studying a 'problem' rather than just examining a cultural place' as early ethnographers were used to doing. Cultural perspectives are becoming more familiar to the ethnography researcher in the subjects chosen for study like pool players, a bingo parlour, a trailer park etc... and multiple qualitative techniques are increasingly identified with ethnographic research such as participant observation, interviewing, archival (sometimes personal) documentation (Wolcott, 2008). Strategies derived from these multiple data collection techniques (triangulation) may include casual conversation, life history, structures and semi-structured interviews, case studies, surveys, census and other measurement techniques.

The research process has also been seen to be as valid in ethnographic research and defined simply as a number of actions geared towards the production of a naturalistic study of some feature or aspect of social behaviour and extricating meaning from the findings. Brewer (2000) adopts this definition but adds that this process, though flexible, seems like a "messy interaction between the research problem, the design of the research and data collection and analysis". In discussing data collection and analysis, Brewster concedes that notwithstanding this flexibility in which unanticipated twists and turns may invariably occur because of dealing with people in their naturalistic setting, the research design process must still be rigorous and carefully thought out. The analysis of the data which is sometimes considered limited (due to the small sample size of some ethnographic studies) must still be categorized and organized into descriptive junks that will be viewed as meaningful and objective rather than biased and based on the researcher's own perceptions. In this case study, the researcher made notes and self-reports while observing the literacy practices of the three subjects in
unregulated practices and categorized these into themes and come up with balanced judgements and assertions.

## 2.4: Heritage languages

The term 'heritage language' can describe 'linguistic acquisition in many different contexts' (Rothman, 2007 cited in Bar-Shalom and Zaresky, 2008). Fishman (mentioned in Peyton, Ranard and McGinnis, 2001) refers to heritage languages as languages with which one has a personal connection to; a historical and personal connection which is tangible as opposed to just proficiency in the said languages. Some foreign language education experts view heritage language students as learners who are raised in a household where a non-English language is spoken; they may speak the languages or at the very least understand those (Valdés, 2000). These rather recent definitions make heritage language students somewhat different from traditional foreign language students; the difference having more to do with the development of the functionality and not proficiency in the languages. It must, however, be noted here that proficiency still remains the determining factor in the definition of what is considered a heritage language for some educators involved in its teaching in America (Peyton et al, 2001).

Looking at heritage languages with regards to bilingualism, many have suggested that bilingualism should be seen as a continuous shifting and dynamic process. In a lifetime, a person's bilingual profile might vary greatly depending on the dominance of one language over the other during different background experiences and schooling at any given stretch of time. The three Subjects in this study have typically had these dynamic changes as they have been born into multi-language environments, experienced migrations and been exposed to different languages at school yet English has been maintained as the dominant language with the medium of instruction being essentially in English.

In one of the conclusions made by Huffines (1991) in his study of heritage language speakers in the US, he found the use of the languages to be restricted to "largely lowlevel functions and casual, informal, private sphere interactions". Over time, he adds, "the [] language falls into disuse" and consequently lots of young people in bilingual communities may not acquire the full range of registers and styles of their home country languages. Valdés (2000) validates this point by saying further that most heritage speakers will 'know' the language and use a set of internalized rules but not necessarily possess the meta-language to describe the grammatical systems of the given language. Moreover, Valdés goes on to affirm that over the generations, bilinguals show different levels of proficiency in the heritage language. Though the majority of $2^{\text {nd }}, 3^{\text {rd }}$ and even $4^{\text {th }}$ generation immigrants will speak both languages, they will become what he termed English 'dominant', if not English 'preferent' over time.

## 2.5: Language dominance

Researchers in the field of bilingualism agree that for a balanced bilingual (a person with equal proficiency in two or more languages), there is scarcely ever a true and equal balance between the languages; that there is typically one dominant language while the other known language is used in different domains for different purposes in everyday life. In fact, Grosjean (1997) devised the term 'complimentary principle' to underscore this notion. Despite this loose interpretation, disagreements still persists amongst some researchers who have made a distinction between language dominance, the proficiency and the patterns recognised beneath this dominance. In a comparative study on language dominance in two groups of Turkish-German bilinguals (one group comprised of children who grew up in Germany and returned to Turkey in their school days and the other a control group who grew up in Turkey and learned German as an L2), Daller, Yildiz, de Jong, \& Kan Basbagi (2010) measured language dominance based on fluency and oral proficiency. They noted that although the two languages were structurally different, variables such as family background had an influence on the proficiency of the students. In another study where the two languages being compared were structurally the same (namely English and French), various measures were used to establish proficiency as well as dominance (Paradis, Tremblay \& Crago, 2008, cited in Daller et al, 2010). Here, standardized vocabulary tests and parental questionnaires were used and the results found a high correlation between these measures and language dominance in bilingual children. This pattern of results would be contrary to one of the findings in our present study since the languages in which one of the Subjects possesses extensive vocabulary is not necessarily their dominant language. In another study, it was posited that the bilingual's lexical presentation may be described in terms of a lexicon for the less dominant language and another lexicon for the more dominant language (Heredia 1997). What this translates into is that bilingual memory representation is a function of the frequency of use rather than lexical capacity. Again, this is interesting for us because 2 of the Subjects in this study do not have a vast lexicon for their heritage languages but are able to recognise the language during the lexical retrieval tasks. We will touch on this again in the discussion section later.

## 2.6: Digital Literacies

Children and adolescents are increasingly engaged in a variety of digital technologies and this has given rise to new ways of looking at curriculum provision for language learners in many institutions. As Wolfe and Flewitt (2010) suggest, curriculum guidance in the UK on new technologies emphasizes the technical dimensions of ICT rather than the potential of new media to promote literacy learning via collaborative multimodal
communication less reliant on books. Movies, mobile phones, video messaging, blogs, social networking and websites constitute the globalized communication environment central in the literacy practices of youths and adults today (Cope \& Kalantzis (2000). A decade later, Mills (2010) comparing multimodal digital and literacy practices of adolescents in school and at home recommended that educational institutions take greater responsibility in bridging the gap between what happens at school and at home and emphasised how language learning can be enriched as a consequence.

## Chapter Three - METHODOLOGY

We drew inspiration for using case study methodology as a useful starting point when we considered Stake's distinction between intrinsic and instrumental case studies (1995, pp3-4). The former refers to the need to learn about a particular case while the latter (this is our case) has to do with the need for the researcher to understand a wider issue or examine a known phenomenon. Our case was selected in terms of its value in shedding light on ongoing discussions and the potential contribution it might bring to the understanding of the world of multiple language speakers who are fast becoming the 'norm' rather that the 'aberration', so to speak, in society today.

This case study focusses on the gathering qualitative observational data to examine the regulated and unregulated literacy practices of 3 subjects. The purpose of using this approach is, as Creswell (2007) describes, to explore an issue without merely relying on previous results. Using this methodology allows the investigator to 'retain the holistic and meaningful characteristics of real-life events (Yin 2009). Case studies, while examining contemporary events, usually rely on two sources of evidence namely: direct observation of the events under study and interviews of the people involved in the events. Yin (2009, p. 11) added that the case study's unique strength lies in its ability to utilize a myriad of evidence in the form of artefacts, documents, interviews and observations. With such data triangulation, case studies have the ability to pre-empt potential problems around validity and reliability since the multiple sources of evidence basically provide multiple measures of the same phenomenon (p. 116). Creswell (2003), however, cautioned that triangulation of data may also cause difficulty in merging and comparing these multiple types of data. This viewpoint is also shared by Yin (2009 pp. 114-118) when he adds that triangulation of data centres around pulling together different sources with a view to developing a robust "fix" on the case while at the same time "allowing for subtle nuances of interpretation and insight that multiple perspectives provide". Similarly, ethnography, as defined by Brewer (2000) uses research methodology, which in its application, studies 'people in a naturally occurring setting or 'field', in which the researcher participates directly, and in which there is an intent to explore the meanings of this setting and its behaviour and activities from the inside', and so fits well alongside a case study research model. The present study draws on these above methodologies to investigate the literacy practices of 3 adolescent children in both regulated and unregulated contexts. A particular area on interest here that "remains highly unexplored" according to Montrul (2012), is the nature of lexical knowledge and representation in the two types of learners investigated in her study.

### 3.1.1: Context

This ethnographic case study was conducted in the home setting of three adolescents between the ages of 13 and 16 ; all belonging to families of first generation immigrants from a multilingual as well as multicultural background. The distinction between first, second and third generations in sociolinguistic terms with reference to heritage language speakers was made by Silva-Corvalán, 1994, cited in Montrul (2012). Prior to the study, the researcher obtained permission from the parents of the subjects for them to take part. Although anonymity has been largely recognised as problematic in qualitative research, there seems to be no easy solution except to be aware of the need to pay particular attention to the sensitivity of ethical issues and the extent to which anonymity can be promised. The study also offered an insight into the literacy practices of the subjects with regards to their use of digital technologies in both regulated and unregulated contexts. At the time of the study, 2 of the Subjects resided in Abu Dhabi with their families and the third in the UK.

### 3.1.2: Subjects

As mentioned above, the three Subjects have been raised in households where more than one language was spoken routinely in everyday interactions. Subjects $1 \& 2$, born in the UK, are siblings whose parents (both English/French bilinguals and speaking 2 Cameroonian dialects) have been immigrants for over 15 years, living in the host country in which resides a wide and vibrant speech community, all hailing from the same home country, Cameroon. Subject 1 is a 16 year old whose L1 is English but who understands a second language (Pidgin English) to which the subject has been exposed from birth. Other languages gained from schooling from the age of 9 include French and Arabic. Subject 2 is a 13 year old whose linguistic background is identical to Subject 1 but who has been exposed through formal instruction to more languages from the age of 6 (French, Spanish, Arabic, Latin and Mandarin). Subject 3, on the other hand, was born in France to bilingual parents (English and French) who speak one Cameroonian dialect as well. French was the Subject three's L1 until the age of 4 when the family moved to the US. Formal schooling started 18 months later in English (L2). At age 6, Subject 3 began formal instruction in Spanish, German at age 12 and Chinese at age 13. The Subjects were solicited through the researcher's personal connections.

### 3.1.3: Methods of data collection

The current study is an ethnographic case study of the regulated and non-regulated practices of 3 adolescents with the aim to obtaining a sense of which language is
maintained in their mental lexicon given their exposure to multiple languages in their developmental process. We chose to collect our data using multiple sources of evidence because in doing so, problems addressing validity and reliability can be addressed. We did not limit ourselves to just recording actual behaviour in a laboratory nor just surveys or questionnaires to gain verbal information. This, and the absence of a formal database which can be accessed by other readers have been identified as a major shortcoming in case study research. We strove to triangulate our data in order to increase confidence in the conclusions we arrived at. Keeping notes, documents, narratives, observations, interviews organized and categorized and available for access later are all necessary for overall pattern of results to be observed and for theoretical and literal replication to be accomplished. Cognizant of the limitations of this study, we modelled our research on one of the protocols identified in Denzin's book, The Research Act ( 1984 \& 1989, quoted in Stake, 1995) namely data source triangulation protocol, investigator protocol, theory triangulation protocol and methodological triangulation protocol. We found the first protocol-data source triangulation protocolmore suited for what we hoped to achieve. Data on the personal background, patterns of language use and language attitudes, social networks, cultural and motivational attitudes from both the subjects and parents was elicited through a written questionnaire which was adapted from an existing version developed by Schmid (2005) in his manual called 'The Language Attrition Test Battery’ (See Appendix A). Some other questions were adapted from studies on L2 acquisition and bilingualism (Pavlenko, 2005). Also included in the collected data were field notes (made throughout the process), informal interviews (See Appendix B, C, D) and email exchanges (See Appendix F).

### 3.1.4: Linguistic biography

The subjects' families were contacted at the beginning of the study by email and informal chats were had to discuss the linguistic background of the languages understood and spoken by the 3 Subjects. They were given a linguistic biography document (See sample Appendix H; completed samples L, M, N) to complete and as respondents are teenagers, the researcher was on hand to answer any questions they could not figure out or needed clarification with. We followed the biographies with the above mentioned questionnaires which afforded more in-depth information about the backgrounds of the adolescents.

## 3.2: Instruments

### 3.2.1: Literacy diaries

The Subjects were asked to complete a literacy diary documenting all materials-read and written-over a period of one week. The diaries required the Subjects to record every text they engage with over a vast range of media from traditional print books to multimedia and digital technology like television, computer games, electronic devices, comics and other social media sites transmitted over the internet and computer networks. There was guidance explaining that they had to document all texts worked on in school and at home and provide samples of the documentation where possible. Although the researcher recognises that self-reporting can raise some methodological setbacks, the feeling was that the diaries would provide a comprehensive and broad base for discussions and allow opportunities for taking notes at the end of each day during the diary week. Each Subject was informed about the purpose of the study and the confidentiality of their identities. (See Appendix O).

### 3.2.2: Questionnaires

Interviews in qualitative research serve to aid in understanding people's perceptions as well as to facilitate the extraction of certain vital information that might otherwise not be found in literature. Among the different types of interviews: - structured, semistructured and unstructured, we chose the middle one because it seemed most convenient for the purpose of this study. The semi-structured interviews (See Appendix E; completed samples I, J, K) were face-to-face, allowing the researcher to obtain rich detailed information gained from the actual voices of the subjects. Since the respondents were adolescents, the questions were tailored to their level of understanding to avoid ambiguity and reduce any confusion that may have arisen. Also, they went beyond initial questioning, especially for Subject 3 as her language background was intriguing. Interviews and informal chats were also carried out with parents to corroborate the information provided by the subjects as well as obtain any additional data or missed information. During the interviews, each Subject was given 30 - 40 minutes to complete the questionnaires (See Appendix A). Although one of the drawbacks of using questionnaires is the time it takes to draft them (Munn \& Drever, 2004), the resultant descriptive information proved useful in helping the researcher gain a fuller picture of the background of the Subjects and their literacy practices and language attitudes which the interviews alone may not have yielded. Moreover, according to Rugg \& Petre (2007), questionnaires can be a very useful tool for collecting 'ancillary' data on subjective issues such as the participants' opinions and views around language choice, language contact and attitudes. The data was collated using a 5-point Likert-style scale where "very often" = most of the time, "often" = from time to time, "sometimes" = on some occasion, "rarely" = infrequently, and "never" = not at all. It must be interjected here that Subject 3 had to respond to the questionnaire by mail because of distance at the time the information was needed. The semi-structured interview later ensured that the answers were in-depth and reliable. Another reason for using the Likert-type scale is the relative ease it affords with regards to data analysis as it does not require statistical assumptions to be made. Such a scale provides qualitative data that is accurate, measurable and easy to analyze. It can also show when
respondents do not have a clear opinion or are not interested in a particular statement thus making it relatively easy to categorize.

### 3.2.3: Lexical retrieval tasks

In bilingual research, lexical retrieval tasks have been used more and more to gain better insight into the psycholinguistic, socio cultural and cognitive impact on all aspects of language development. Mixed results have been obtained for groups of children and adults for example, for monolinguals and bilinguals, for gender based groups and so on and some of the findings have contributed in beginning to shape policy decisions and have implications for pedagogy. A good number of research in lexical retrieval have made comparisons between multilingual speakers' ability to perform tasks like naming pictures in two or more languages (Costa \& Santesteban, 2004), making semantic clarifications for words in two languages by comparing lexical access and fluency rates amongst bilinguals, (Dufour \& Kroll, 1995) and translation exercises between languages (Kroll \& Stewart, 1994). In the present case study, we chose to use lexical retrieval in a free and then a controlled task where the Subjects were asked in one session to name the pictures of 20 lexical items in any language and then write the orthographic representation of the items the way they conceptualize them. We were guided by Montrul \& Foote (2012)'s work on bilingual lexical access for L2 English/Spanish language learners and heritage speakers, examining factors like age of acquisition and language dominance. The really interesting factor from this work that guided our choice was the fact that one of the groups of participants was made up of bilinguals whose L2 happened to be their dominant language. The items were selected based on the early languages known by the Subjects. 16 of items are nouns, 9 of which are food items that could be associated with different cultures and 4 of them referred to items of clothing items from distinct cultures also. The remaining items were common nouns in English. The non-noun items were short simple sentences in Pidgin English and Arabic.

### 3.3.1: Steps of implementing the study

Data gathered from observations, field notes, questionnaires and interviews yielded interesting insights. Parents and Subjects gave permission and verbal consent prior to the interviews and completing the questionnaires. The interviews were conducted in the comfort of the children's homes, and this was eased by the fact that the researcher is a parent to Subjects 1 \& 2. Observations and note-taking took place at home as the Subjects were engaged in their unregulated literacy practices. These observations formed part of the data recorded in the literacy diaries. For Subject 3, the same procedures were followed at home for the one week literacy diary collection and responding to the questionnaire but the follow-up notes and any other clarifications the researcher needed were done by email correspondence. The data was then categorized to examine whether there were any patterns emerging and these were
clustered around the research questions to support or disclaim the body of literature review. Finally, the data was presented in a table below:

### 3.3.2: Data Findings:

| Instruments |  | Subject 1 | Subject 2 | Subject 3 |
| :---: | :---: | :---: | :---: | :---: |
| Lexical retrieval tasks | Researcher Input |  |  |  |
| Free task Oral | Item \# 1- <br> Miondo - a cassava based food item from Cameroon | Miondo | Miondo | Bamboo but resembles 'baton de manioc' French translation |
|  | Item \# 2Pain au chocolat | Pain au chocolat | Pain au chocolat | Pain au chocolat |
|  | Item \# 3- <br> Kabba | Kabba | Kabba | Kabba |
|  | Item \#4Library | Library | Library | Library |
|  | Item \# 5-Dodo-fried plantains | Dodo | Dodo | Plantains fritesFrench translation |
|  | Item \# 6Fufu \& eru-a West African dish of vegetable leaves and pounded cassava | Fufu \& eru | Vegetable stew \& fufu | Ndole-a Cameroonian vegetable dish made with beef, dried fish and blended groundnuts |
|  | Item \# 7-Café-a French diner selling light snacks | Restaurant diner | Café | Bistrot-a small inexpensive restaurant |
|  | Item \# 8Pidgin English greeting meaning 'how are you?' | Pidgin Englishmeans 'how are you?' | Pidgin-means 'hello', how are you?' | Subject said 'reminds me of Chinese 'ni how' |


|  | Item \# 9Arabic greeting'welcome' | Arabic-subject said 'that is am ' $m$ ' sound; identifying first letter of word | Subject said 'Marhaba'Arabic language | Arabic |
| :---: | :---: | :---: | :---: | :---: |
|  | Item \# 10Traditional west African ceremonial dress | Kaba for formal gatherings | African dress | Pagne-French word for patterned fabric |
|  | Item \# 11Jollof rice-a West African rice dish | Jollof | Jollof rice | Fufu de manioc- <br> French <br> translation <br> meaning <br> cassava fufu |
|  | Item \# 12- <br> Pidgin <br> English <br> meaning 'I have not seen you for a long time; how's work?' | Pidgin Englishmeans 'long time since we met' | Pidgin | Nigerian language |
|  | Item \# 13Baguette | Baguette | Baguette | Baguette |
|  | Item \# 14Books | A pile of books | Books | Books |
|  | Item \# 15- <br> Juju-an <br> African <br> dancer <br> wearing <br> amulets; <br> symbol of <br> witchcraft | Juju | Puppet | Voodoo-danse traditionelleFrench translation |
|  | Item \# 16- <br> Pidgin <br> Englishmeaning a lazy man will | 'A lazy man will not take my money'-Pidgin | Pidgin | Pidgin |



|  | Item \# 7 | Café | Café | Bistrot |
| :---: | :---: | :---: | :---: | :---: |
|  | Item \# 8 | 'How are you?' | Pidgin | Subject wrote 'nĩ hăo and some Chinese characters |
|  | Item \# 9 | Arabic | It says 'Hello' in Arabic | Arabic |
|  | Item \# 10 | Caba | Kaba | Pagne |
|  | Item \# 11 | Jollof rice | Jellof rice | Fou-fou-spelt in French |
|  | Item \# 12 | Wrote' long time no see; how is the bolo going?' | Pidgin | Nigeria |
|  | Item \# 13 | Baguette | Baguette | Baguette |
|  | Item \# 14 | Books | Books | Books |
|  | Item \# 15 | Juju | Puppet | Voodoo |
|  | Item \# 16 | Wrote 'lazy men don't cost me money | Pidgin | Pidgin |
|  | Item \# 17 | Puff-puff | Puff-puff | Puff-puff |
|  | Item \# 18 | Bobolo \& ndole | Ndole | Bobolo |
|  | Item \# 19 | Beret | Beret | Beret |
|  | Item \# 20 | Grains of wheat | Bag of rice | Semolina |

### 3.3.3: Data Analysis

Item by item analysis. Subjects will hitherto be referred to as S1, S2 \& S3.

| Item \# | S 1 | S 2 | S 3 | Comparative analysis |
| :---: | :---: | :---: | :---: | :---: |
| Item \# 1 | Provides correct label for picture | Provides correct label for picture | Provides a translation (French) of the picture | S1 \& S2 used their cultural kn asked reason for answer both eat the item frequently. S3 re from French and her reply wa is referred to at home. |
| Item \# 2 | Correct label in free as well as controlled tasks | Correct label in free as well as controlled tasks | Correct label in free as well as controlled tasks | S1, S2 \& S3 went into their m to the cultural linguistic contex during interviews that it was a |
| Item \# 3 | Correct label in free task | Correct label in free task | Correct label in free task | In the written task, S1 \& S3 w the letter ' C ' rather than a ' K ' because the heritage languag primarily oral. They are basic sound system of English. Sa 2 though her representation is correct one. |
| Item \# 4 | Correct label in both tasks | Correct label in both tasks | In free oral task, same reply as S1 \& S2 but in the written task, she writes the French equivalent for library | Responses from all subjects items are 'straightforward' in they revert to their dominant noted here that S3 uses eithe English (her L2) as she is flue choice seems to be determin interlocutor is. When the rese the oral task, she chose Engli on her own, she chose French |
| Item \# 5 | Correct label | Correct label | In both tasks, S3 comes up with translations of the item in French | We see cultural linguistic influ choice of labels from S1 \& S2 because of the familiar use of English in S3's home backgro stronger. |
| Item \# 6 | Correct label | Approximate label | Uses a totally different label | S1 provides the right respons as he suggested during the ta favorite Cameroonian meal. approximate answer showing awareness but maybe for the S1, she does not remember th however, offers a dish whose is the fact that it is a vegetabl reason for this S3's approxim |


|  |  |  |  | because 'Ndole', the dish she consumed across regional bo the Cameroonian community familiar. |
| :---: | :---: | :---: | :---: | :---: |
| Item \# 7 | The label gives a general picture of the first words that come to S1's mind in the free tasks. Given the controlled task, he writes the correct word. | Correct label | S2 provides a specific label in both tasks, unlike S1 \& S2 | Interestingly, S3 chooses a de narrows down the item to its c which only a competent langu |
| Item \# 8 | S1 mentions what the language is and what it means | Same as S1in both tasks | S3 overcomes her lack of familiarity with Pidgin English by associating it to Chinese-a language she is familiar with | S1 \& S2 show more interactio features of Pidgin English by but exhibiting more than just a understanding of the nuances S3, in the written task, actually characters to label the Pidgin |
| Item \# 9 | S1 shows some contact with the language, identifying one sound in the word | S2 says it is Arabic and explains the meaning of the word in English | S3 stays with the general identifying the word as being from Arabic | The differences between the access their lexical store seen an interplay with all the langua as by the complexity and dept languages are known. |
| Item \#10 | Correct label | Correct label | French word for patterned fabric | In the free task, S1 \& S2 have in the controlled task, S1 puts context-it is used for formal ga is strictly not the case as the o formal as well as informal occ general context-it is an African leans towards the language st with her parents and thus whe |
| Item \# 11 | Correct label | Correct label | S3 likens the picture to a pounded cassava meal she is familiar with | Once again, the first 2 Subjec context clues in their mental s translate the words the picture French comes to mind. When the words automatically come when she thinks of 'Cameroon |


| Item \# 12 | S1 tries to supply the meaning of the words rather than identifying what language it is | Simply says it is Pidgin | S3 identifies it as a Nigerian language | It is interesting here that S3 re English sentence as being Nig mentioning here is the fact tha country whose 2 official langu English, S3's family hails from French-speaking) regions whe common assumption that the deviation from Standard Englis 'Anglophones' (of the Englishcome from the close associati Nigeria where English is the o reference is sometimes made (Kouega \& Emaleu, 2013). |
| :---: | :---: | :---: | :---: | :---: |
| Item \# 13 | Correct label | Correct label | Correct label | None of the Subjects referred pointing to a deep understand its use. |
| Item \# 14 | Correct label | Correct label | Correct label | Straightforward retrieval from for all subjects. |
| Item \# 15 | Correct label and during interview, S1's manner showed that he was aware of the negative feelings associated with this character in the Cameroonian context | S2 associates picture with a puppet, the closest thing she can think of from her lexical store in English | S3 refers to item as voodoo-a term that is readily used when looking at things of the 'underworld' | S2's response suggest that le than one language go through pathways as they decide whic as the situation demands. S3 depicts the influence of French repertoire and because of the and S2, this researcher knows have referred to this item in th S3 knows that the dress is wo dances in some parts of Came adds the translation 'danse tra controlled task. |
| Item \# 16 | In the free task, S1 chooses to provide the meaning of the words. In the written, he translate them into English. | S2 identified the words as being from Pidgin in both tasks | S3 identified the words as being from Pidgin English in both tasks but we notice that she does not say it is from Nigeria as before | We note here that although in sentence, there is the word 'ch eat', none of the Subjects con interpretation of that word in th suggesting that familiarity with superficially, has an influence to activate their mental store. |
| Item \# 17 | Correct label | Correct label | Correct label | This food item is very commor regions in Cameroon and so t recognition for all 3 Subjects f local dialect. |


| Item \# 18 | Correct label | S2 provided a <br> more <br> generalized <br> word which <br> she often does <br> when she <br> cannot find an <br> exact answer | S3 gives a <br> partial answer <br> but is aware of <br> what the dish <br> is called | All Subjects activate their men <br> dominant as well as non-domi <br> occasion demands. |
| :--- | :--- | :--- | :--- | :--- |
| Item \# 19 | Same <br> response like <br> for the other <br> words that are <br> have French <br> origin | Same <br> response like <br> for the other <br> words that are <br> have French <br> origin | Same <br> response like <br> for the other <br> words that are <br> have French <br> origin | There is always an interplay in <br> depending on the background <br> language or the other, its fami <br> dominance in the Subjects' re |
| Item \# 20 | Approximate <br> response | Correct <br> response in <br> oral task but <br> approximate in <br> written one | S3 chooses a <br> totally different <br> word but <br> consistent with <br> the mental <br> picture that it is <br> activated | Semolina, chosen by S3 is a f <br> consumed and looks like 'garri <br> So it is an understandable cho |

### 3.3.4: Patterns and themes from the lexical retrieval data

1. All Subjects rely on cultural linguistic influences buried in their mental lexicon to help them label the items. This can be seen for all the items that are nouns. This also addresses RQ2 because retrieval from the mental store is quickly done for languages that are dominant on the one hand. The food nouns (picture items \# $1,5,6,11,17,18$, and 20 identified for what they are even though some of the conceptualization is approximate. By this we mean that item \# 6 for example, the 3 Subjects naming them as fufu \& eru, vegetable stew and fufu and Ndole respectively, they all capture the essence of what the food consists of. Again, items \# 2, 7, 13 and 19 are all named with their cultural origin in mind. But we have also seen from other information gathered that though the Subjects are not competent enough in their ethnic languages, they still get the approximate definitions for some of the items in Pidgin English. This shows that the influence of culture and environment cannot be minimized as these will have an impact on the way speakers contextualize and develop language.
2. Even where the Subjects' knowledge of the languages are at beginner levels, it seems that the mere exposure to different languages creates a complex set of factors which come into play when we examine how they store and make sense of the language systems, even at an subconscious level. As Hoffmann \& Stavans (2007) put it, these complex combinations occur both due to the knowledge of
the language(s) and knowledge about the language(s). RQ1 which asks the question whether target languages are maintained by the Subjects in regulated and unregulated practices raises more questions than answers for this researcher. It brings into question how much metalinguistic awareness and communicative competence are critical in language development and maintenance. It does not seem to matter how vast the size of a learner's vocabulary but rather what seems to be of some importance is their connection with the language, their attitude towards it, their motivation for using it and the frequency of its use.

### 3.3.5: Limitations of study

One of the limitations of the current study is its small scale and so generalizing the findings will be somewhat difficult. Secondly, the Subjects do not make up a homogenous group and so results tended to be specific to the individual as opposed to the group. Thirdly, we made tacit assumptions about the Subjects' linguistic competence during a small window of time (retrieval tasks) and have only represented information about the linguistic skills of the migrant at one particular point in time. Since we mentioned before that L1 loss is a dynamic phenomenon, longitudinal designs, though more difficult to set up, would have the advantage of allowing evaluation of language development, competence and perhaps language attrition as well by comparing specific assessments of the proficiency of individuals at different moments in time. Also, the ethnic language vocabulary measures for the words used in the tasks were not validated in terms of frequency of use by any cited prior studies and so the analyses were mainly correlational.
In our context, the written questionnaires were especially useful for collecting general personal background information, but to gain more in depth insights into the sociolinguistic variables, the interviews, in our opinion, were a more adequate elicitation tool. Parental information proved to be more reliable than the information provided by the adolescents as parents have the opportunity to observe children from the very early stages of language development and in broader day-to-day contexts as well.
Notwithstanding this, it is believed that there could have been a limitation here because the parent language data were self-reported raising the possibility of having data which could not be verified in the course of our study. Furthermore, after the data analysis was done, it was felt that the use of a formal elicitation instrument like a C-test might yield precise measurements of the differences in L2 proficiency and memory store of lexical items. Focus on a single morph syntactic feature would probably have yielded more interesting findings.

## Chapter 4 - Discussion

This study set out to explore the literacy practices of 3 adolescents in regulated and unregulated contexts with a view to shedding a light on the language dominance in their mental lexicon. The collective languages, heritage languages and/or language varieties for 3 subjects include English, Pidgin English, and two Cameroonian dialects, French, Spanish, German, Chinese, Mandarin, Latin and Arabic. We will carry out the discussion by providing a linguistic profile for each subject in turn from the data in the literacy diaries. The interpretation of the findings will pertain to the competence in the heritage languages, which language dominates the mental lexicon and the extent to which the subjects' language background has an effect on literacy practices notably in unregulated contexts.

## Subject 1:

Subject 1 is a 16 year whose L1 is English and who can understand a Cameroonian ethnic language and Pidgin English, understand and speak French and has knowledge of Arabic from formal instruction in school. He can understand conversational Japanese (self-taught through websites and interacting with video games, films and comics).

The questionnaire data shows that he speaks other languages at home other than English but rarely would do so out of the house. He would infrequently read or write anything in other languages in unregulated contexts but would from time to time watch video clips in Pidgin English and play computer games, read comics online with subtitles and sing songs in other languages.

The linguistic biography shows that English is the L1 and French the L2. Subject 1 has limited knowledge of the two Cameroonian dialects spoken by both of his parents. Pidgin English, being a common language between the parents has been spoken in the home and around the immediate social circle of Subject 1 and so he understands and uses short words and phrases on many occasions. He considers himself an ascendant bilingual-an individual whose ability to function in a second language is developing due to increased use. (See Appendix F).

The interviews and observations also reveal that Subject 1 dips in and out of Pidgin English and French in unregulated contexts at home. The literacy diary also confirm this picture of dipping into the language that fits depending on the communicative purpose. This is mostly seen in the digital literacy practices where social networking sites on the internet like What's App, Facebook, YouTube, MySpace, gaming sites, mobile phone and music video sites confirm the fact that young adolescents' personal interests and recreational uses of ICT are closely linked with the amount of reading and writing they would engage in. The realisation of this calls more and more for
development in educational exploitation of new technologies to enhance and enrich the learning experience of students in regulated contexts.

In the lexical retrieval task, there was evidence that the stored languages in Subject 1's mental lexicon are accessed accurately for the most part from the context of the cultural background surrounding the context and meaning of the words. For example, 'miondo', 'dodo', 'fufu \& eru', 'jollof rice', 'puff-puff' and 'bobolo and ndole' which are all food items from Cameroon are all named correctly from the pictures presented to him. The same thing happens for 'baguette' and 'beret' which to a monolingual English speaker perhaps would have been labelled as 'bread' and 'hat' respectively. This point could have been substantiated had this study been looking at making comparisons with the word choice of a monolingual English speaker. This may be an area for further exploration by this researcher. For the short phrases in Pidgin English, there was an attempt by Subject 1 not only to name the pictures but also to translating the meaning of the phrases, showing more than just a superficial understanding of the language. These were, however, approximate translations as he has limited competence and performance in the language.

## Subject 2:

Subject 2 is a 13 year old and being the sibling of Subject 1 has an identical linguistic, social and parental background. Through formal instruction, she knows French, Arabic, Spanish, Latin and Mandarin.

The questionnaire data indicates that she sometimes uses another language at home, is not comfortable using other languages out of the home, reads and writes in other languages from time to time as well as watch and listen to other languages from time to time too.

Looking at the linguistic biography, English is the L1, French L2 and for the other languages, the Subject is an early beginner and she has been picking up these languages at different stages up to age 12. She considers herself to be a receptive bilingual-an individual who understands a second language, in either its spoken or written form, or both, but does not necessarily speak or write it. (See Appendix G)

From the interviews and observation notes, Subject 2 is a versatile and prolific reader and would pick out books from the library "just because they had some French words in them". In unregulated contexts at home, she frequently read books, blogs, media texts, Instagram, Tumbler, Snap chat. In fact, she seems to represent the title 'cyber girls', a term coined by Thomas (2004) in his study of how girls 'construct their virtual selves verbally (cyber talk) and visually (avatars) in the context of an online chatting
environment'. Gómez (2010) also explored how British and Spanish teenagers act out their feminine identities using blogs. Another study worth mentioning in this same vein is Chandler-Olcott and Mahar, 2003, cited in Koutsogiannis and Adampa (2012) where they examined how two girls' out-of-school use of digital tools shape their gendered identities. Subject 2 does use these tools as a means of reading, writing, communication and entertainment. The interesting angle for the present study is that she chooses media texts with other languages other than her dominant English to do these (See Appendix H \& I). Her literacy diary also reflect this.

As regards the lexical retrieval tasks, the dominance of English is seen but equally the Subject accesses the words in free recall and correctly draws from her conceptual store. Although this study did not measure the time it took for the retrieval, we still notice as Heredia (1997) suggests that theoretically, it would be possible 'for fluent bilinguals to develop a strong connection between conceptual store and their second lexicon with enough practice in the [other] language[s]'. In naming the picture items, Subject 2 uses the same strategies as Subject 1 for the nouns except that for the short phrases, she merely identified the languages as being Pidgin without giving her contextual understanding of the words.

## Subject 3:

As mentioned earlier, Subject 3 was born in France and so her L1 was French but like the other two Subjects, her parental background is the same. Data from interviews revealed that both parents speak 1 Cameroonian dialect but are less competent in Pidgin English. She knows Spanish, Chinese and German from formal instruction and clearly defines her level of competence in the languages (See Appendix F).

From the questionnaire, we note that Subject 3 speaks other languages than English most of the time in and out of the home. We suggest here that this is because of the 'status' of the other languages in the environment in which Subject 3 lives as well as her attitude toward the heritage language, unlike the pattern we see with the attitudes of the other Subjects. She often writes and reads in other languages as well as interact in them during times of entertainment.

The linguistic biography shows that while Subject 3 considers herself very fluent in both English and French, she states that she is better in both her written and spoken skills in English (her L2). Pidgin English is not mentioned as a language she knows.

In the interviews and observations, Subject 3 reads a lot of materials in both French and English in unregulated contexts. In these contexts as well, she switches codes very often as she interacted with members of her family, speaking primarily in French to her parents and English to her siblings. We must admit at this juncture that more data was obtained from the informal chats and interviews than from the literacy diary and we
overcame this shortcoming by corroborating information about literacy practices with the parents.

The lexical retrieval task for Subject 3 presents a different kind of picture from the other 2 Subjects. She reverts to her cultural mental store for the noun items and accesses some of them in French rather than the ethnic languages. For example, 'miondo' is named as 'bamboo' but she adds that it looks like 'baton de manioc' which is a literal translation from French meaning 'cassava sticks'. This translation describes what the food item is, much like a French speaking person will describe it in Cameroon. Again, 'dodo' is named as 'plantain frites' which is the French translation for 'fried plantains'. The 'jollof rice'-a rice dish- is named 'fou fou de manioc' (French for pounded cassavaan item she will be more familiar with because of the region where this food item is common; making this her frame of reference). In the case of the nouns referring to clothing items, again Subject 3 tends to be influenced by her knowledge of French than ethnic languages. She names items \# 10 and 15 as 'pagne pour les fêtes' and 'voodoodanse traditionelle', translated as 'cloth for special celebrations' and 'voodoo-traditional dance'. We see that she gives responses which incorporate the generic meanings of the concepts in the ethnic languages rather than the direct ethnic names themselves. And again, for items associated with French culture, Subject 3 seems to be specific with content words she chooses. 'Library' is represented as 'library' in the free speaking task but as 'bibliotèque' when she was undertaking the controlled written task; and café was named as the more specific word 'bistrot' which we suggest might be used by speakers who have an in-depth knowledge of the cultural nuances of language.

One last finding to point out here is that for an item whose equivalent Subject 3 could not immediately retrieve from her more prominent languages, she reverts to other languages she has in her repertoire. This might explain why for item \# 8, the Pidgin English phrase which means 'how are you?' is seen as a Chinese phrase Ni hăo in the free and controlled tasks.

One goal of the study was to gain an insight into how adolescents who know more than two languages store them in their mental lexicon. Some findings do stand out in relation to the literature. 'Lexical access is restricted considerably by lack of language experience, reduced proficiency and infrequency of use' (de Bot, 1998). Our findings bear this assertion out but goes further to support Montrul and Foote's (2012) more recent claim that experience alone rather than predetermined linguistic knowledge is almost exclusively the one factor which dictates the accuracy of access from the bilingual mental lexicon and the selective links between lexical and conceptual representations in different languages. Other studies too have shown that the visual recognition of words and phrases is acquired through experience in specific situations rather than on a maturational schedule. However, other findings also suggest that if migrant parents do not speak ethnic languages to their children more than 'societal'
language, the kids will generally find it hard to gain as well as maintain a robust heritage language vocabulary (Dixon et al, 2012). Parents of Subjects 1 and 2 report that they mostly speak English to the kids so this accounts for their limited success with improving competency in their ethnic languages. Furthermore, according to Polinsky and Kagan (2007) one's competence in the heritage language can be viewed in terms of a continuum-from fluent to no knowledge. Notwithstanding this, our 3 Subjects exhibit responses that reflect what influence the experience of their known languages have in their linguistic repertoire. Language interference is seen as the instances where deviations from the norms of either language occur in the speech of bilinguals as a result of familiarity with more than one language. Subject 3 shows this quite well because despite the fact that she considers herself a more confident English user, she still pulls greatly from her knowledge store of French. She gives a French translation for half of the 20 lexical items as opposed to 4 items for the other two Subjects. Again, Scheele et al (2010) found that the more mothers use ethnic/heritage languages at home, the more likely their children will develop a vast vocabulary store in them. All three Subjects testify to this. However, we find that even though two of our Subjects do not have an extensive vocabulary store in their heritage language, they still recognize it during the tasks and, during observations, were seen to use the language spontaneously and understand when being spoken to.

Our study did have an orthography-phonology aspect in the written control task when the Subjects had to provide written representations of the lexical items, especially in the ethnic/heritage languages with no help. It was found as expected that since for Subjects 1 \& 2 Pidgin English was a conversational language at home spoken mostly between the parents, they made fuzzy representations from their knowledge of the English phonetic system.

For all three Subjects, digital literacy played a huge part in what was read and written both in regulated and unregulated environments and they did not shy away from interaction with the languages they knew as they manipulated this form of literacy. As Walsh (2010) acknowledged, it is impossible to separate the processes of writing and reading on screen from the social practices of literacy which have had to adapt to this changed forms of communication in this 21 st century.

## 4.1: Pedagogical implications

Researchers agree that it is time to firmly embed the popular culture and media texts language learners encounter in the home and community into schooled literacy practices if we are to move the disparate elements in children's worlds a little closer together. From our study, we have ascertained that our Subjects' schools use a lot of their skills in new technologies and integrate these into regulated practices in school.

There is still the feeling however that some teachers may be reluctant to engage with digital technologies possibly because of their lack of knowledge and interest in them. This can sometimes be demotivating for learners. In fact, a New Zealand research study (Fink-Jensen et al., 2003, cited in Ladbrook, 2008) posited that this hesitancy in teacher engagement in these technologies might also be due to lack of access to and willingness to use them. In linguistic terms, the vast language spectrum that learners come with in many educational institutions today can no longer be ignored. It is hoped that the findings of this research will contribute to motivating educational policy makers to capture the positive impact that multilingualism and multiculturalism can have in foreign language classrooms.

## 4.2: Future research and conclusion

A case study is 'a distinctive form of inquiry that remains one of the most challenging of all social science endeavours' (Yin, 2009, p 1). There must be evidence of how the case has a connection to wider issues, whether as an intrinsic and interesting example of a bigger picture; as a platform for making practical recommendations or as a means to contribute to the development of theories in the future. Our study is clearly set in the context of growing discussions on the subject of bilingualism and multilingualism in a world that sees more and more of this group of people emerging. Discussions have been raging in the last decade in America where there is the emergence of heritage language schools whose primary focus is to enhance the quality of teaching and learning and this is borne from the recognition of the rich language learning experience that could be offered different types of learners.

Contrary to what was reported in a study by Dixon et al (2012), our Subjects' interaction with their heritage language using different digital media provides only a minimal influence in helping them maintain these languages. The above mentioned study carried out in the US examined a group of 282 Singaporean children who were found to have maintained proficiency in their ethnic languages because they regularly watched television in Korean.

Following on from Wolfe and Flewitt's case study (2010) where it was stated that more case studies will need to be carried out on children from 'mixed ethnic, bi-lingual and trilingual families, it is our hope that the present study will contribute to the continuing debate about new technologies, multimodal literacy practices and metacognitive development in young children. A goal for future research may be to delve more into the cognitive consequences of bilingual speakers' complex management of two or more languages in cultural-linguistic environments. As Grosjean (1998) underlined, bilinguals are rarely equally fluent in both languages they know and language dominance usually follow patterns of change that are dependent on the pressing communicative needs of the speaker. Notwithstanding this, L1 attrition seems to be a natural consequence of the reduced use of a language in a 'new' environment in which it competes with L2. It is
vital that given the increase in the number of people world-wide who understand and speak more than two languages, more studies be carried out on the sociolinguistic and cognitive issues that surround the literacy practices of defined groups of language speakers. It is hoped that the premise of this study will be widened to include a larger sample and a control group of monolinguals to obtain a balanced view. Our aim here was not to present a set of findings that could be generalised but rather to use the data to carve out themes and patterns which may offer specific signposts towards where educational policy decision makers may be heading. As mentioned earlier, literacy "as a communicative practice is inherently social, grounded in the need to compile and share information between individuals or groups [ ]". There always will remain the human desire to participate in larger social and cultural practices with regards to satisfying the purpose of literacy in daily self-expression.

## References

Anderson, K. T. (2010). A review of "digital literacies: social learning and classroom practices". Language and Education. Vol 26 (6) pp535-538 http://dx.doi.org/10.1080/09500780903509894

Bar-Shalom, E. G., \& Zaresky, E. (2008). Selective attrition in Russian-English bilingual children: provision of grammatical aspect. International Journal of Bilingualism. Vol. 12 (4) pp281-302.

Basturkmen, H., Loewen, S., \& Ellis R. (2004). Teachers' stated beliefs about incidental focus on form and their classroom practices. Oxford University Press. Vol 25 (2) pp243272.

Bialystok, E., \& Craig, F., Luk, G. (2008). Cognitive control and lexical access in younger and older bilinguals. Journal of Experimental Psychology. Vol. 34 (4) pp859873.

Bialystok, E., Craik, F. I. M., Green, D. W., \& Gollan, T. H. (2009). Bilingual minds. Association for Psychological Science. Vol. 10 (3) pp89-129.

Boudreau, D. (2005). Use of parent questionnaire in emergent and early literacy assessment on preschool children. American Speech-Language-Hearing Association. Vol 36 pp33-47.

Brewer, J. D. (2000). Ethnography. Open University Press.
Cope, B. \& Kalantzis, M. (2000). Multiliteracies: Literacy learning and the design of social features. South Yarra, VIC, Australia: Macmillan.

Costa, A. \& Santesteban, M. (2004). Lexical access in bilingual speech production: Evidence from language switching in highly proficient bilinguals and L2 learners. Journal of Memory and Language. Vol 50 pp491-511.

Creswell, J. W. (2003). Research design: Qualitative, quantitative, and mixed methods approaches. 2nd ed. Thousand Oaks: Sage Publications.

Creswell, J.W. (2007). Qualitative Inquiry \& Research Design: Choosing Among Five Approaches. Thousand Oaks, California: Sage

Creswell, J. W. (2008). Educational Research. Planning, Conducting, and Evaluating Quantitative and Qualitative Research. 3rd edn. New Jersey: Pearson.

Cummings, J. (1978). Bilingualism and the development of metalinguistic awareness. Journal of Cross-Cultural Psychology. Vol 9 pp131-149.

Cummings, J. (1979). Review of Educational Research. Vol.49. Accessed March 31 ${ }^{\text {st }}$ 2015. http://rer.sagepub.com/cgi/alerts;
http://rer.sagepub.com/content/49/2/222.abstract

Daller, M., H., Yildiz, C., De Jong, N., H. \& Başbaĝi, R. (2010). Language dominance in Turkish-German bilinguals: methodological aspects of measurements in structurally different languages. International Journal of Bilingualism. Vol 15 (2) pp215-236. SAGE Publications.

De Bot, K. (1998). The psycholinguistics of language loss. In G Extra and L. Verhoeven (Eds.). Bilingualism and migration.

De Houwer, A., (2009). Bilingual First Language Acquisition. MM Textbooks.
Dewaele, J-M. \& Stavans, A. (2014). The effect if immigration, acculturation and multicompetence on personality profiles of Israeli multilinguals. International Journal of Bilingualism. Vol. 18 (4) pp201-221.

Dixon, L. Q., Zhao J., Quiroz, B. G., \& Shin, J-Y. (2012). Home and community factors influencing bilingual children's ethnic vocabulary development. International Journal of Bilingualism. Vol. 16 (4), pp541-565.

Dörnyei, Z. (2003). Questionnaires in second language research: Constructing, administration and processing. LEA. London.

Drever, E. 1995. (2003). Using Semi-Structured Interviews in Small-Scale Research: A Teacher's Guide. Edinburgh: Scottish Council for Research in Education.

Dufour, R. \& Kroll, J.F. (1995). Matching words to concepts in two languages.: A test of the concept mediation model of bilingual representation. Memory \& Cognition, Vol 23. Pp 166-180.

Eisenchlas, S., A., Schalley, A., C., \& Guillemin, D. (2015). School of Languages and Linguistics. International Journal of Multilingualism. Vol. 12, (2) pp151-161. http://dx.doi.org/10.1080/14790718. Accessed March, 242015.

Golasfhani, N. (2003). Understanding Reliability and Validity in Qualitative Research. The Qualitative Report. Vol. 8 (4) http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf

Grosjean, F. (1998). Studying bilinguals: Methodological and conceptual issues. Bilingualism: Language and Cognition. Vol 1. Pp131-140.

Flewitt, R. S. (2010) 'New technologies, new multimodal literacy practices and young children's metacognitive development'. Cambridge Journal of Education. Vol. 40 (4): 387-399.

Heredia, R, R., (1997). Bilingual memory and hierarchical models: A case for language dominance. Cambridge University Press.

Hoffmann, C., \& Stavans A. (2007). The evolution of trilingual code-switching from infancy to school age: The shaping of trilingual competence through dynamic language dominance. Vol 11 (1) pp55-72.

Huffines, M.L. (1991). Pennsylvania German: Convergence and change as strategies of discourse. In H.W.

Kouega, J-P., Emaleu, C-S. Language choice in multilingual socio-religious settings in southwest Cameroon. World Englishes, Vol. 32, (3) pp. 403-416, 2013.

Seliger \& R.M. Vago (Eds.), First language attrition (pp. 125-137). New York:
Cambridge
University Press.
Koutsogiannis, D. \& Adampa, V. (2012). Girls, identities an agency in adolescents' digital literacy practices. Journal of Writing Research. 3(3), pp217-247.

Ladbrook, J. (2008). Teachers of digikids: Do they navigate the divide? Australian Journal of Language Literacy. Vol 32 (1) pp69-82.

Lightbrown, P. M. \& Spada, N. (1999). How languages are learned. 2nd edition. Oxford University Press.

Marsh, J. (2001). Parental Involvement in literacy development: using media texts. Journal of Research in Reading. Vol 24, (3) pp66-278.

Marsh, J. (2003). One-way Traffic? Connections between literacy practices at home and in the nursery. British Educational Research Journal. Vol 29, (3). Carfax Publishing.

Marsh, J. (2004). The Techno-literacy practices of young children. Journal of Early Childhood Research. http://ecr.sagepub.com/content/2/1/51

Meisel, J., M. 2008). The Bilingual Child http://www1.uni-hamburg.de/romanistik/personal/pdf-Dateien/bilchild.pdf. Accessed (find date from the article bank in documents

Mills, K. A. (2010). Shrek meets Vygotsky: Rethinking adolescents' multimodal literacy practices in schools. Journal of Adolescent \& Adult Literacy. Vol 54 (1) pp35-45.

Montrul, S. (2008a). Second language acquisition welcomes the heritage language learner: opportunities of a new field. Second Language Research. Vol 24 (4) pp487506.

Montrul, S. (2012). Is the heritage language like the second language. International Journal of Bilingualism. SAGE publication.

Montrul, S., Foote, R. (2014). Age of acquisition interactions in bilingual lexical access: A study of the weaker language of L2 learners and heritage speakers. International Journal of Bilingualism. Vol. 18 (3) pp274-303.

Munn, P., \& Drever, E. (2004). Using Questionnaires in Small-Scale Research: A Beginner's
Guide. Edinburgh: Scottish Council for Research in Education.

Nag-Arulmani, S., Reddy V., \& Buckley, S. (2003). Targeting phonological representations can help in the early stages of reading in a non-dominant language. Journal of Research in Reading. Vol 26 (1) pp49-68.

Pavlenko, A. (2005). Emotions and Multilingualism. Cambridge, UK: Cambridge University
Press.
Peyton, J., K., Ranard, D. A., \& McGinnis, S. (2001). Heritage languages in America: Preserving a national resource. Language in Education. Pp 37-77.

Polinsky, M. \& Kagan, O. (2007). Heritage languages in the "wild" and in the classroom. Language and Linguistic Compass. Vol 1 (5) pp368-395.

Rugg, G., Petre, M. (2007). A Gentle Guide to Research Methods. Open University Press.

Selinker, L. (1972). 'Interlanguage'. IRAL. Vol. 10 (2) pp209-231.
Selinker, L. (1979). Linguistic Interdependence and the Educational Development of Bilingual Children.
Review of Educational Research. Vol. 49 (2) pp. 222-251.

Scheele, A., F., Leseman, P., P., M. \& Mayo, A., Y. (2010). The home language environment of monolingual and bilingual children and their language proficiency. Applied Psycholinguistics. Vol 31 pp117-140.

Schmid, M. S. (2005). The language attrition test battery. A research manual. Vrije Universiteit
Amsterdam. (Unpublished manuscript)
Shin, D-S. (2006). ESL students' computer-mediated communication practices: context configuration. Language Learning \& Technology. http://llt.msuedu/vol10num3/shin/

Simcox, T., Pilotti, M., Mahamane, S. \& Romero, E. (2011). International Journal of Bilingualism. Vol 16 (4) pp419-427.

Stake, R. E. (1995). The Art of case study research. SAGE Publications.
Thomas, A. (2004). Digital literacies of the cybergirl. E-learning. Vol 1 (3) pp358-382.
Valdes, G. (2004). "Teaching heritage languages: A introduction for Slavic-language teaching professionals" In Olga Kagan and Benjamin Rifkin, eds. Learning and Teaching of Slavic languages and cultures: Towards the $21^{\text {st }}$ century. Bloomington, Indiana. Slavica Publishers.

Walsh, M. (2010). Multimodal literacy: What does it mean for classroom practice? Australian Journal of Literacy and Literacy. Vol 33 (3) pp211-239.

Wolcott, H. F. (2008). Ethnography. A way of seeing. $2^{\text {nd }}$ ed. Altamira Press.
Wolfe, S., \& Flewitt, R. (2010). New technologies, new multimodal literacy practices and young children's metacognitive development. Cambridge Journal of Education. Vol 40 (4) pp387-399.

Yin, R., K. (2009). Case study research: Design and methods (4 ${ }^{\text {th }}$ ed). Thousand Oaks, CA. Sage.

## Appendix A

## Sociolinguistic Questionnaire Sample for Subjects

This questionnaire will serve to gather information about your personal background and your language use. It consists of questions and do try to answer all questions on your own because I am interested in your opinion about your language use. If you do not understand a question, please do not hesitate to ask me. There are no right and wrong answers.

1. What is your date of birth?
2. Are you:
$>$ Male
$>$ Female
3. Where were you born?
4. What language(s) did you acquire before starting school?
$\qquad$
5. What language(s) are spoken in your home?
6. What language(s) do you speak to your parents?
7. How often do you speak another language other than English at home?
$>$ Very often
$>$ Often
$>$ Sometimes
> Rarely
> Never
8. How frequently do you speak another language other than English out of your home?
$>$ Very often
$>$ often
> Sometimes
> Rarely
$>$ Never
9. Do you read or write in any language other than English?
$>$ Very often
$>$ Often
$>$ Sometimes
> Rarely
$>$ Never
10. Do you ever watch or listen to any TV programmes or go on any other internet sites which feature other languages other than your main language?
$>$ Very often
$>$ Often
> Sometimes
> Rarely
> Never

## Subject 1 <br> Appendix B

## Appendix A

## Sociolinguistic Questionnaire for Subjects

This questionnaire will serve to gather information about your personal background and your language use. It consists of questions and do try to answer all questions on your own because I am interested in your opinion about your language use. If you do not understand a question, please do not hesitate to ask me. There are no right and wrong answers

1. What is your date of birth? $22 / 04 / 1999$
2. Are you:
$\Rightarrow$ Male
$>$ Female
3. Where were you born

4. What languages) did you acquire before starting school?
5. What languages) are spoken in your home?
English, Pidgin, French Cameroonian language
6. What languages) do you speak to your parents?

7. How often do you speak another language other than English at home?
$>$ Very often
$>$ Often
$>$ Sometimes
$>$ Rarely
$>$ Never
8. How frequently do you speak another language other than English out of your home?
$>$ Very often
$>$ often
> Sometimes
$>$ Rarely
$>$ Never
9. Do you read or write in any language other than English?
$>$ Very often
> Often
$>$ Sometimes
$>$ Rarely
$>$ Never
10. Do you ever watch or listen to any TV programmes or go on any other internet sites which feature other languages other than your main language?
$>$ Very often
$>$ Often
$\rightarrow$ Sometimes
$>$ Rarely Cancelled
$\rightarrow$ Never

Subject 2

Appendix A
Sociolinguistic Questionnaire for Subjects
This questionnaire will serve to gather information about your personal background and your language use. It consists of questions and do try to answer all questions on your own because I am interested in your opinion about your language use. If you do not understand a question, please do not hesitate to ask me. There are no right and wrong answers.

1. What is your date of birth? 16 th April 2002
2. Are you:
$>$ Male
$>$ Female $\checkmark$
3. Where were you born? Manchester
4. What languages) did you acquire before starting school? English
5. What languages) are spoken in your home?

English, Pidgin and French
6. What language (s) do you speak to your parents?
English
7. How often do you speak another language other than English at home?
$>$ Very often
$>$ Often
$>$ Sometimes
$>$ Rarely
$>$ Never
8. How frequently do you speak another language other than English out of your home?
$>$ Very often
$>$ often
$>$ Sometimes
$>$ Rarely
9. Do you read or write in any language other than English?
$>$ Very often
$>$ Often
$>$ Sometimes
$>$ Rarely
$>$ Never
10. Do you ever watch or listen to any TV programmes or go on any other internet sites which feature other languages other than your main language?
$>$ Very often
$>$ Often
$>$ Sometimes
$>$ Rarely
$>$ Never

Appendix C

## Appendix D - Subject 3

## Sociolinguistic Questionnaire for Subjects

This questionnaire will serve to gather information about your personal background and your language use. It consists of questions and do try to answer all questions on your own because I am interested in your opinion about your language use. If you do not understand a question, please do not hesitate to ask me. There are no right and wrong answers.
11. What is your date of birth? $\qquad$
12. Are you:
> Male
$>$ Female $\mathbf{V}$
13. Where were you born? $\qquad$ France $\qquad$
14. What language(s) did you acquire before starting school? $\qquad$ French $\qquad$
15. What language(s) are spoken in your home?

French, English, Cameroonian language (mum \& dad)
16. What language(s) do you speak to your parents?

French $\qquad$ English $\qquad$
17. How often do you speak another language other than English at home?
$\rightarrow$ Very often
$>$ Often
$>$ Sometimes
> Rarely
> Never
18. How frequently do you speak another language other than English out of your home?
$\rightarrow$ Veryoften
$>$ often
> Sometimes
$>$ Rarely
> Never
19. Do you read or write in any language other than English?
$>$ Very often
$\rightarrow$ Often
> Sometimes
> Rarely
> Never
20. Do you ever watch or listen to any TV programmes or go on any other internet sites which feature other languages other than your main language?
$>$ Very often
$\rightarrow$ Often
$>$ Sometimes
> Rarely
$>$ Never

## Appendix E

## Semi-Structured Interview Sample-Subjects/Parents

1. What language is spoken at home?
2. What language do you use when you talk to your children?
3. What language do your children use when they talk to you?
4. Do you encourage your children to speak in your ethnic language?
5. How do you feel towards the languages that your parents speak?
6. Do you think heritage languages play an important role in the relationship between your family members?
7. Would you say you are a bilingual person?
8. Do you listen to music and other kinds of entertainment in other languages in your home?
9. How would you rate your skills in all the languages you know-native-like? Fluent? Good? Ok?
10. What languages did you learn outside of an educational institution?


Regarding the questions, here are my answers:

1) Where was $A-L$ born?

Anne Lucie was born in France, in the little town of Saint Mande (Post code: 94160), a municipality bordering Paris.
2) Which language(s) was spoken to her from birth?

French was the language, (and we could say only language for her first three years), first spoken to her from birth. Through some CDs with song in English, I tried also to familiarise her to the English language and accent).
3) Which language did she begin to speak first?

French
Could she understand any other language that was spoken at home?
She could not understand any other language until the family moved from France to the US when she was nearly 4 years old.
What language is this? English
4) Was she bilingual -

She had become bilingual by the time she started school 18 months later after our arrival in the US. The first year, as she was not going to school, she practiced her English while playing with kids from the neighborhood with whom she became good friends.During that year at home she learnt to read and write in French, and this helped her when starting school at 5, to learn to read with great ease in English,
did she at any point use more than one language-that is, speak to mum in English, to dad in French etc...
Yes, she was using French at home, with her parents and big sister Maeva, and English first with her friends, then also at school.
5) Did one language become more dominant than the other over time?

Yes, English became more dominant.
Why? This is due to the fact that it is the language she used daily at school,to listen, to speak, to read and to write. Meanwhile French was only for oral use (listening and speaking).
6) Right now, which language does she use most of the time at home?

Right now, at home she uses French when speaking to her Mum or Dad, and English when speaking to her 3 siblings.

Does she switch from one to the other depending on the interlocutor in social situations-like among Cameroonians who may speak both English and French?
Yes, she adopts her choice of language between English and French depending on her interlocutor.

## Appendix TYRES OF BILINGUALS

| Type of Bilingual | Definition |
| :---: | :---: |
| Additive Bilingual | An individual whose two languages combine in a complementary and enriching fashion. |
| Ascendant Bilingual | An individual whose ability to function in a second language is developing due to increased use. |
| Balanced Bilingual (equilingual) (symmetrical bilingual) (ambilingual) | An individual whose mastery of two languages is roughly equivalent. |
| Compound Bilingual | An individual whose two languages are learnt at the same time, often in the same context. |
| Co-ordinate Bilingual | An individual whose two languages are learnt in distinctively separate contexts. |
| Covert Bilingual | An individual who conceals his or her knowledge of a given language due to an attitudinal disposition. |
| Diagonal Bilingual | An individual who is bilingual in a non-standard language or a dialect in an unrelated standard language. |
| Dominant Bilingual | An individual with greater proficiency in one of his or her languages and uses it significantly more than the other language(s). |
| Dormant Bilingual | An individual who has emigrated to a foreign country for a considerable period of time and has little opportunity to keep the first language actively in use. |
| Early Bilingual (Ascribed Bilingual) | An individual who has acquired two languages early in childhood |
| Functional Bilingual | An individual who can operate in two languages with or without full fluency for the task in hand. |
| Horizontal bilingual | An individual who is bilingual in two distinct languages which have a similar or equal status. |
| Incipient Bilingual | An individual at the early stages of bilingualism where one language is not fully developed. |
| Late Bilingual (achieved bilingual) | An individual who has become a bilingual later than childhood. |
| Maximal Bilingual | An individual with near native control of two or more languages. |
| Minimal Bilingual | An individual with only a few words and phrases in a second language. |
| Natural Bilingual (primary bilingual) | An individual who has not undergone any specific training and who is often not in position to translate or interpret with facility between two languages. |
| Productive Bilingual | An individual who not only understands but also speaks and possibly writes in two or more languages. |
| Receptive Bilingual (semibilingual) (asymmetrical bilingual) <br> (passive bilingual) | An individual who understands a second language, in either its spoken or written form, or both, but does not necessarly speak or write it. |
| Recessive Bilingual | An individual who begins to feel some difficulty in either understanding or expressing him or herself with ease, due to lack of use. |
| Secondary Bilingual | An individual whose second language has been added to a first language via instruction. |
| Semilingual | An individual with insufficient knowledge of either language. |
| Simultaneous bilingual | An individual whose two languages are present from the onset of speech. |
| Subordinate bilingual | An individual who exhibits interference in his or her language usage by reducing the patterns of the second language to those of the first. |
| Subtractive bilingual | An individual whose second language is acquired at the expense of the aptitudes already acquired in the first language. |
| Successive bilingual (consecutive bilingual) | An individual whose second language is added at some stage after the first has begun to develop. |
| Vertical bilingual | An individual who is bilingual in a standard language and a distinct but related language or dialect. |

Depending on different definitions of bilingualism, a great number of sociolinguistic researches have been carried out focusing on diglossia, language choice etc. (see Ferguson 1959, Fishman 1965,

## Appendix H

## Linguistic Biography for Subjects - sample

| 1) What is your first language - your L1- the first language you learned as a child? |
| :---: |
| 2) What is your level of competence in your L1? (How well do you speak it?) |
| 3) What is your second language - your L2- the second language you learned? |
| 4) At what age did you learn your second language? |
| 5) What is your level of competence in your L2? |
| 6) Do you know a third language? If yes, what is it? |
| 7) At what age did you learn your third language? |
| 8) What is your level of competence in your L3? |
| 9) List any other languages you know |
| 10) a) What is the age of acquisition and your competence in each one? <br> b) Use the attached list to describe which type of bilingual you are. |

## Semi-Structured Interview - Subject 1

1. What language is spoken at home?

Answer: English most of the time but the whole family speaks more of Pidgin when we are all together. That is where I learn to understand it.
2. What language do you use when you talk to your children?
3. What language do your children use when they talk to you?
4. Do you encourage your children to speak in your ethnic language?
5. How do you feel towards the languages that your parents speak?

Answer: Pidgin is a very funny language and there are many words that sound like English. Sometimes my sister and I laugh at the way our parents' English sounds like Pidgin. We like to watch video clips in Pidgin of comedians on Youtube and also listen and watch music videos. I found this site where they put on some lyrics called 'Tanglish' which is a combination of Tamil and English rap. There are other languages too so I go to that site often. I like playing around with languages.
6. Do you think heritage languages play an important role in the relationship between your family members?

Answer: Yes because my mum and her family speak and text each other most of the time in Pidgin which I try to read sometimes. It is important for them so they use it all the time. Even on Skype, they will greet us in Pidgin so we learn a lot from listening to them.
7. Would you say you are a bilingual person?

Answer: Yes, I am. I would like to speak more French though.
8. Do you listen to music and other kinds of entertainment in other languages in your home?

Answer: Oh yes. My computer games have a lot of Japanese kind of background music and lyrics often have subtitles so I listen to the music and read the subtitles. I like 'makossa' music too which is a Cameroonian but I don't understand anything they say because it is in Douala language where my parents come from. I do understand the Cameroonian songs in Pidgin though like (Subject sings the line) 'sweet Mother, I no go forget you...(these are the lyrics to a popular song in Pidgin English).
9. How would you rate your skills in all the languages you know-native-like? Fluent? Good? Ok?

Answer: I am very fluent in English. I can get by in French-in greetings with short sentences and how to ask for simple things. I am preparing for my Speaking exam and my teacher says my French is ok.
10.What languages did you learn outside of an educational institution? Answer: Only Pidgin.

## Semi-Structured Interview - Subject 2

1. What language is spoken at home?

Answer: English most of the time but mummy and daddy and my aunties and uncles speak a lot of Pidgin when they are together.
2. What language do you use when you talk to your children?
3. What language do your children use when they talk to you?
4. Do you encourage your children to speak in your ethnic language?
5. How do you feel towards the languages that your parents speak?

Answer: I like Pidgin because it sound funny when mummy says some things. My brother and I like to watch video clips in Pidgin of comedians on Youtube.
6. Do you think heritage languages play an important role in the relationship between your family members?

Answer: Yes because even when I see mum's emails and texts to her sisters, they are always in Pidgin or French so they do not speak to each other only in English.
7. Would you say you are a bilingual person?

Answer: Yes, because I can understand more than one language although the other languages are not as good as my English.
8. Do you listen to music and other kinds of entertainment in other languages in your home?

Answer: Mostly in English but sometimes in French. And also my Anime programs on TV have songs in Japanese which I know how to sing because I listen to it all the time. I listen to Cameroonian music called 'makossa' which is the Cameroonian language. Mummy and dad listen to them too and know how to sing them in their language. In school sometimes in the library we have foreign language magazine rack which I go to in my free time to read in French.
9. How would you rate your skills in all the languages you know-native-like? Fluent? Good? Ok?

Answer: My English is very good.
10.What languages did you learn outside of an educational institution? Answer: Only Pidgin English.

## Semi-Structured Interview - Subject 3

1. What language is spoken at home?

Answer: French and English most of the time. I speak to my parents in French and to my siblings in both French and English except for my last brother who does not speak French very well. His English is better.
2. What language do you use when you talk to your children?
3. What language do your children use when they talk to you?
4. Do you encourage your children to speak in your ethnic language?
5. How do you feel towards the languages that your parents speak?

Answer: Ok. Sometimes when other Cameroonian people that we know come to the house, they speak a Cameroonian language with my father but we don't know that language.
6. Do you think heritage languages play an important role in the relationship between your family members?

Answer: I am not sure if it is important to mummy and my dad but it seems to be important for the bigger family because my grandma (father's mum) cannot speak English or French very well so they speak with her in the Cameroonian language and that is ok.
7. Would you say you are a bilingual person?

Answer: Yes, I am. I speak French and English very well as I have lived in France for some time when I was little. My mum's mother still lives in France so when we visit, I try to sound like the French people and I do not have a problem
watching their TV and understanding French. My German and Spanish are at beginner's level but I am quite good. My Chinese is very low now. So I would say I am trilingual because I know English, French and Spanish well.
8. Do you listen to music and other kinds of entertainment in other languages in your home?

Answer: Yes I do. I watch movies in most of the languages I know and read books as well.
9. How would you rate your skills in all the languages you know-native-like? Fluent? Good? Ok?

Answer: I am very fluent in French but my writing in English is better. I will speak like a French person when I am having a conversation with a French speaking person but some of my friends say my English is like a francophone...I don't know.
10.What languages did you learn outside of an educational institution?

Answer: I learnt French at home because I was born in France but all the other languages were at school.

Linguistic Biography for my dissertation subjects

1) What is your first language - your L1- the first language you learned as a child?
English
2) What is your level of competence in your L1?

$$
\text { Very } \operatorname{cto} \theta d
$$

3) What is your second language - your L2- the second language you learned? French
4) At what age did you learn your second language?
$G$
5) What is your level of competence in your L2?

Decent
6) Do you know a third language? If yes, what is it?

Pidgin English
7) At what age did you learn your third language?

8) What is your level of competence in your L3?

Low, I understand when people speak it around me
9) List any other languages you know, age of acquisition and competence in them.
$\wedge_{1}$
10) a) What is the age of acquisition and your competence in them?
b) Use the attached list to describe which type of bilingual you are.

Ascendant Bilingual

## Appendix M <br> subject (2)

Linguistic Biography for my dissertation subjects

1) What is your first language - your L1- the first language you learned as a child? Eng gish
2) What is your level of competence in your L1?
Pretty good, fluent
3) What is your second language - your L2- the second language you learned? French
4) At what age did you learn your second language?

Year 5 age 9
5) What is your level of competence in your L2?

Beginners level
6) Do you know a third language? If yes, what is it?

Spanish
7) At what age did you learn your third language?

Age 11
8) What is your level of competence in your L3?

Early Beginner
9) List any other languages you know, age of acquisition and competence in them. Pidgin - an k - age 12 , can pean read words. words and speak Matin - age 12 , can read and speak words
10) a) What is the age of acquisition and your competence in them? -
b) Use the attached list to describe which type of bilingual you are.
Receptive BilinguaL

## Appendix N

| level group | level group name | level | level name | description |
| :---: | :---: | :---: | :---: | :---: |
| A | Basic User | A1 | Breakthrough or beginner | - Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. <br> - Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. <br> - Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help. |
|  |  | A2 | Way stage or elementary | - Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). <br> - Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. <br> - Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need. |
| B | Independent User | B1 | Threshold or intermediate | - Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. <br> - Can deal with most situations likely to arise while traveling in an area where the language is spoken. <br> - Can produce simple connected text on topics that are familiar or of personal interest. <br> - Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans. |
|  |  | B2 | Vantage or upper intermediate | - Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. <br> - Can interact with a degree of fluency and spontaneity that makes regular |



1) What is your first language - your L1- the first language you learned as a child? French.
2) What is your level of competence in your L1?(how well do you speak it?)

I am a level C2 on the Common European Framework (for speaking).
3) What is your second language - your L2- the second language you learned?

English
4) At what age did you learn your second language?

At 4 years old.
5) What is your level of competence in your L2?

Fluent/Native speaker level. My English, both written and spoken, is better than my French.

> subject 3-Linguistio Biography
6) Do you know a third language? If yes, what is it?

Spanish
7) At what age did you learn your third language?

6 years old
8) What is your level of competence in your L3?

I am predicted an $\mathrm{A}^{*}$ at A-level in Spanish. In the Common European Framework I am in between levels B1 and B2 (but more towards B1)
9) List any other languages you know

I don't know if these are relevant but I will include them just in case Chinese
German
10) a) What is the age of acquisition and your competence in each one?

Chinese- Started studying at 13- level A1 on the CEF.
German- started studying at 12- level A2 on the CEF
b) Use the attached list (?) to describe which type of bilingual you are.
orally got description-
Early bilingual

## Appendix 0

Informed Consent

As part of my Master's Degree, I am carrying out research into the literacy practices of adolescent children to see their language backgrounds affect these practices. My research aim is to contribute to the discussion to see how good knowledge and considerations for the positive impact of these can be used to enhance the learning of such adolescents. Your candid answers are very valuable and all remarks are completely confidential. You are hereby consenting to voluntarily provide answers to a questionnaire and take part in interviews related language use at home and in school. Your consent will be used as records for the above and your identity/your child's identity will remain anonymous at all times.
If you would like to participate, please sign in the appropriate space below.
By signing this from, you confirm that you have read and understood the above.

## Name of participant

## Date

$\qquad$

Date
Signature
$\qquad$

