EXPLORING THE USE OF CODE SWITCHING BY IRAQI INFORMATION TECHNICIANS: A QUALITATIVE CASE STUDY

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THESIS APPROVAL PAGE

I certify that in my opinion the thesis submitted by Sattar J. Hashim CHNANI titled "EXPLORING THE USE OF CODE SWITCHING BY IRAQI INFORMATION TECHNICIANS: A QUALITATIVE CASE STUDY" is fully adequate in scope and in quality as a thesis for the degree of English Language/Applied Linguistics.

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DECLARATION

I hereby declare that this thesis is the result of my own work and all information included has been obtained and expounded in accordance with the academic rules and ethical policy specified by the institute. Besides, I declare that all the statements, results, materials, not original to this thesis have been cited and referenced literally.

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FOREWORD

ABSTRACT

Code switching (hereafter CS) is a distinctive phenomenon among other language contact phenomena. It is widely used within bilingual communities to maintain communications. Therefore, the purpose of this study is to explore the use of code switching among Iraqi ITs at the workplace and identify the reasons for using code switching. Data collection consisted of two stages: recording the participants' conversations (seven conversations) at workplaces and conducting semi-structured interviews with 14 participants (14 interviews). The study qualitatively analyzes seven Iraqi ITs' conversations at workplaces by applying Apple and Muysken (2006) classification of CS. A thematic analysis was also used in analysing the 14 interviews with 14 participants. The findings, which revealed that the participants use CS for different reasons, showed that the first conversation ranked first in code switching occurrence. They also revealed that the *intra-sentential* CS is the predominant type within Iraqi ITs' workplace conversations. In addition, they revealed that CS was mainly used to perform a referential function. The study is important for EFLLs because it gives a clear picture of language alternation in Iraqi ITs public sector workplace. The current study provides the researchers and the practitioners with an authentic and dependable idea about the actual use of language alternation (CS) in the community of information technicians at a workplace in the Iraqi state higher education sector.

KEYWORDS: Code switching; intra-sentential switching; inter-sentential switching; tag switching; qualitative; Iraqi technicians.

ÖZ

Dili değişimi, dil iletişimi fenomeni içerisinde ender bir durumdur. İletişimi sürdürmek için iki dilli toplumlarda bireyler arasında yaygın bir şekilde kullanılmaktadır. Bu araştırmanın amacı bilgi tekniği kullanarak konunun ele alınıp çalışma yerlerini ve kullanım sebeplerini ortaya koymaktır. Bu araştırmada yer alan dokümanlar, iki aşamadan oluşmaktadır. Araştırmaya katılanların işyerlerinde yaptıkları konuşmaların yedisi kaydedilmiş, 14 mülakat yapılmıştır. Araştırmada dil değişimi ile ilgili Apple ve Muysken (2006) tasnifi uyarınca söz konuşma nitelikli bir yöntemle konu açısından incelenmiştir. 14 katılımcı ile yapılan mülakatlar vasıtasıya konu incelenmiştir. İlk konuşma içerdiği dil değişimi açısından başta yer almıştır. Ayrıca bu tür konuşmalada intrasentential(cümle içi) anahtarlamanın yaygın olduğu ortaya çıkmıştır. Ayrıca bu araştırmada referential(işaret etme) görevi için dil değişiminin kullanıldığı görülmüştür. Bu inceleme İngilizce öğrenen yapancılar icin önemli sayılır. Çünkü Irak'taki işyerlerinde dil değişimi olayı ile ilgili açık bir görüntü ortaya koymaktadır. Ayrıca bu araştırma, araştımacı ve uzmanlar için dil değişimi olayı ile ilgili bilhassa Irak'ın yükseköğretim ve kamu sektörlerinde esas alınabilecek gerçek ve orijinal kullanımına ilişkin bilgiler de sunmaktadır.

Anahtar Kelimeler: Dili değişimi; etiket anahtarlama; intrasentential(cümle içi) anahtarlama; cümleler arası anahtarlama; niteliksel; Iraklı teknisyenler.

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ABBREVIATIONS

app.: appendix

appr.: approximately

BL: bilingualism

cf.: compare

CS: code-switching

EFL: English as a Foreign Language

e.g.: for example

EFLLs: English Foreign Language Learners

ENL: English as a Native Language

ESL: English as a Second Language

et al.: and others

etc.: et cetera

ex.: example

i.e.: that is

IT: information technician

L1: first language

L2: second language

M: male

p.: participant

RO: research objective

RQ: research question

SL: source language

TL: target language

SUBJECT OF THE RESEARCH

This study focuses on code switches done by Iraqi information technicians at workplaces. The milieu of information technology, particularly in Iraq, is rich in foreign vocabulary usage in workplaces. The study highlights this language contact phenomenon used in this milieu.

PURPOSE AND IMPORTANCE OF THE RESEARCH

The current study explores the use of code switching among Iraqi information technicians at workplaces. Those ITs mostly find them elves obliged to switch code to be able to maintain the continuity of the conversation or to fill the gap of vocabulary in their first languages. The current study provides the researchers and the practitioners with an authentic and dependable idea about the actual use of language alternation in the community of information technicians at a workplace in the Iraqi state higher education sector.

METHOD OF THE RESEARCH

As a dominant in code switching phenomenon analysis, the qualitative approach was used by the researcher to explore the use of code switching among information technicians in Iraqi state higher education establishments as a worthwhile language contact phenomenon. The data are divided into two sets. Seven recorded conversations data which are transcribed and analyzed later and fourteen semi-structured interviews with the participants.

HYPOTHESIS OF THE RESEARCH/RESEARCH PROBLEM

The study contributes considerably to the literature on bilingualism. Due to the lack of studies about the reality of using language alternation (code switching) in Iraqi bilinguals'

discourses; the current study will be one of the few studies that discuss the bilingual workplace in Iraq, particularly that relates to the workplace in higher education state institutions of Iraq.

POPULATION AND SAMPLE

The sampling of this study included seven conversations and fourteen semi-structured interviews with male information technicians employees who work at the state sector – Ministry of Higher Education and Scientific Research establishments.

SCOPE AND LIMITATIONS/DIFFICULTIES

The study has several limitations. The first limitation relates to the sampling size. A larger sampling size may contribute to further exploration of the frequency and functions of code switching. The second one relates to the setting (Baghdad-Iraq) where they took place. Changing the setting may give different and diverse findings. The third one relates to the gender of the participants. The participation of females in such studies may impact the study especially that relates of frequency. The fourth one relates to the research design (or method of research). Using another research design (i.e., quantitative or mixed research design) may give different findings.

1 CHAPTER ONE: Introduction

1.1 Introduction

In addition to its contribution to individuals' ethnic identities, language is a basic determiner of a social group membership. It is an integral part of human communication and an important means for communication and inter-personal discussion among all community members by which the latter express their ideas and interact with each other. For Norouzinia et al. (2016), communication is a complex and dynamic process where people's experience has been connected tightly in their environment. When communication lessens, the major part of an idea may be lost or misunderstood by the other interlocutors. It is agreed upon that communication is a communal activity that necessitates coordinated interaction among two or more individuals. According to Crystal (2019), Communication is "The transmission and reception of information between a signaller and a receiver." (p.510). Message production is an essential part of communication irrespective of how well-organized or elegant this production. Communication happens only when the other interlocutor elicits and/or respond to your move (message). It produces the required theory, practice, and method for realizing how mere words become significative and meaningful ones, Turner, (2019). For Fleischmann et. al (2020) "Understanding of foreign cultural values, norms, and mutual reflection is always coded by the use of language" (p.4). People need to possess enough knowledge and abilities which enable them to elicit considerably and decode any short meaningful message they may hear in their daily life. Human communication may happen by using a sensory mode (like hearing) and the linguistic branch of semiotics is the branch where such a communicative activity had been dealt with.

In another study, Wales (2009) defined communication broadly as "the process of exchanging information or messages, and human language, in speech and writing, is the most significant and most complex communication system" (p.71). For Deep et.al, (2017) communication is a process by which information is processed (sent and received) by somebody to another.

The workforce of organizations is becoming gradually international in the age of globalization. The global mobility of the 'white' and 'blue' collar workforce encourages the emergence of international companies (Hazel,2017). This leads to the emergence and adoption of a common language among those international workforce members as a means of collaboration and understanding among workers of different backgrounds.

Workplace bilingual contact is considered a breeding ground for more studies that address the process of language alternation (CS) in this milieu. Workplace interactions help in promoting social networks that provide a concrete base for knowledge sharing in such organizations which consequently leads to their development and contribute to increasing their professional fame among other organizations and companies (Ahmad & Widen, 2018). Many studies highlighted this phenomenon in this milieu in the last few decades. The current study tries to highlight this phenomenon in an Iraqi setting (state higher education sector).

1.2 Background of the Study

Frequently, 'constructing' a model bases on the framework of already accepted, proven, and widely agreed upon insights, which may also be highlighted and adopted by another field of knowledge or domain of science (Onysko, 2016). Linguists in general and sociolinguists, in particular, find Kachru's 1988 model as the most significant and accurate one by which he classified English spoken countries according to the legal status of use in each country. It is

considered a quantum leap in the conceptualization and categorization of the world Englishes. His *"Three Circle Model of World Englishes"* (figure No.1) shows how he classified the countries. He classified speakers as:

-ENL: English as a native language represented by speakers who were born in an English-speaking country and English is their mother tongue such as that represented by the *Inner Circle* countries.

-ESL: English as an L2 represented by speakers who learned English and their L1 at the same time and English has a legal status as a second language such that represented by the *Outer Circle* countries.

-EFL: English as a foreign language represented by the non-native speakers whose English as their L2 where English is not adopted and has a legal status in the country such as that represented by the *Expanding Circle* countries.
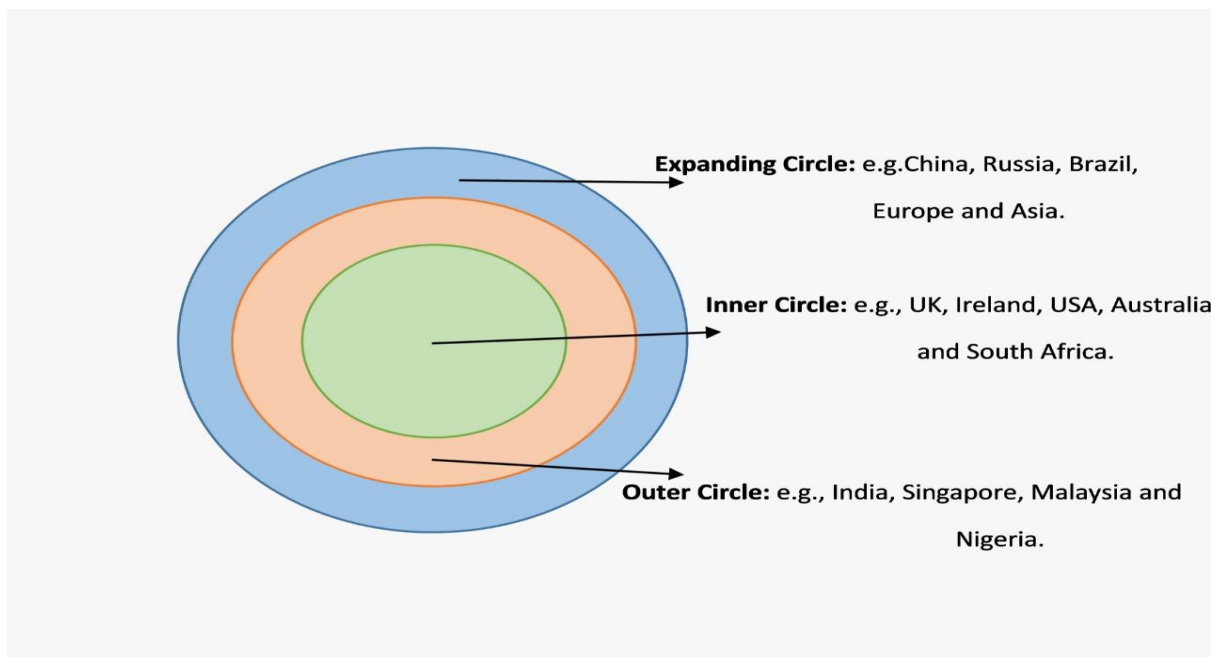
Figure (1.1) Kachrue's (1985) classification of English spoken countries

Iraq, as the setting of the current, is included within the Expanding Circle where the continent of Asia is. According to Kachru (1986, p. 20 as cited in Valentine, 2019), the non-native speaker can renovate and create new meanings that suit his/her cultural context due to his/her linguistic competence; language possesses a creative role in situation context termed the bilingual's creativity; a natural output of the inventive linguistic activities and literary renovations. Applying this statement to the current study, we find the participants, as bilinguals, contribute to renovating and creating new meanings that are appropriate to their cultural context (their setting-e.g., workplace) that, in turn, meet their interactional and linguistic needs.

As a setting, the workplace had constituted the axis of a considerable number of studies on language. As a theme of investigation, the interactions among co-workers and customer/employee had been observed, highlighted and analyzed by several studies (e.g., Hiss, 2017; Worp et al., 2018; Lüdi, 2016).

The current study was conducted in Iraq. The study samples are information technicians (henceforth ITs) who are affiliated with public higher education establishments. Those participants had studied the English language as a foreign language for 13 years, so they are considered EFLLs. The milieu of information technology is rich in foreign vocabulary usage in practitioners' daily works in their workplaces. Generally, those participants had a certain level of proficiency in English ranges from intermediate to post-intermediate language. Such proficiency had been compiled as a result of the years of study and the English-language written curricula they studied in their tertiary study years. This milieu of practitioners can be referred to as a bilingual community in which the alternation between two codes (languages) is a common phenomenon for different reasons; in different settings.

The bilingual linguistic practices of the ITs community include usual language alternation-code switching (henceforth CS) between Arabic and English at the sentence as well as the utterance and turn level. Code-switching is a markedly oral phenomenon and scarcely found in written form González-Vilbazo et al., (2013). The competence of ITs can be easily considered as a natural product of exposure to bilingual language practices, socialization, and formal education in their community.

Code switching took priority in the linguists', and sociolinguists' in particular, interests as a contact phenomenon that arguably dominated the field of bilingualism in the last few decades. From the cognitive perspective; CS is an essential means by which bilinguals produce a language that sustains the activity and accessibility and so provides a helping tool to convey the meaning within the general context require (Beatty-Martínez, Navarro-Torres & Dussias, 2020). This process is remarkable and requires professional analyses as an issue that generates a noticeable deal of argued discussion which, in turn, denotes misunderstanding or misperception of the nature of CS.

Bullock and Toribio (2009) note that the general public mostly perceives CS as an indicator of language degeneration, whereas linguists consider it as indicative of proficient bilingual. Bilinguals used to merge two languages, to some extent, in their daily language contact situations. Language purists, on their part, disparaged such a behaviour (CS) as they longly recommend that each language should keep its integrity in a way that prescribes its norms, (Bullock & Toribio, 2009). Bilinguals used to mix two languages to some extent in their language contact situation to achieve a certain purpose.

Based on the linguistic perspective, CS is considered a live window on the language contact structural outputs which, in turn, can be presented as a systematic rather than non-systematic. In this regard, several linguists have revealed that the majority of the world is plurilingual (Gardner-Chloros, 2009). In addition, CS, itself, can be identified as a process that

reflects the creativity, expressiveness and multimodality of linguistic performance (Kharkhurin & Wei, 2014). Then, linguistically, CS is worthy of highlighting, analysis and study for various reasons.

1.3 Problem of the Study

Code switching was the core of many studies during the last few decades. Several sociolinguists, theorists and linguists (Auer, 1998; Bullock & Toribio, 2009; Lipski, 1978; MacSwan, 2014; Myers-Scotten, 2000; Poplack, 1980; Wei 2000) and recently theorists and researchers from other knowledge fields like psycholinguistics and neurology (Kong, Abutalebi, Lam & Brendan, 2014; Moreno, Federmeir & Kutas, 2002; Truscott & Smith, 2016) dealt with the phenomenon of CS from different aspects.

Several earlier studies presented the importance of CS, each one from a different perspective: e.g.: Gumperz (1977); CS is important and serves several functions such as quotations, addressee specifications, interjections, repetition, message qualification and personalization versus objectivization. It is important because it performs three important functions that reflect its importance, which are humour, bonding, and dampening directness (Gardner-Chloros, 2009). For Chui, Liu and Mack (2016) CS is important to maximize socialization. While Wang and Mansouri (2019) concluded that "CS pedagogy is meaningful and inclusive in creating a language learning environment.".

Despite the huge body of literature on CS in general, there is a dearth of studies on the use of CS in bilingual workplaces. Therefore, the current study is important because it will contribute considerably to the literature on bilingualism in outer-circle countries. Due to the lack of studies about the reality of using language alternation (i.e., CS) in Iraqi bilinguals'

discourses, the current study will be one of the few studies that discuss the bilingual workplace in Iraq, particularly that related to the workplace in higher education state institutions of Iraq.

As for the Iraqi context, A deep net search showed only two studies were conducted within the Iraqi setting. The first was conducted by Al Heeti and Al Abdely (2016) to explore the types and functions of code switching used in the Iraqi doctors' workplace conversations. that enabled doctors to have switched in their workplace conversations. By following the content analysis approach, they found out that English language proficiency is a basic skill that enabled participants to switch codes. It also concluded that the English-based instruction had notably contributed to the high communicative and linguistic proficiency of the participants.

The second one was conducted by Abdul-Zahra (2010) discussed the functions and the reasons behind code CS. The researcher adopted a questionnaire to find the reasons for CS among a random population of bilingual undergraduates. The study found out that students switch code for almost two major reasons: either to show off or to attract others' attention to his/her linguistic proficiency.

Unlike the study of Al Heeti and Al Abdely (2016) which followed Poplack's patterns of CS, the current study adopted the functional model of CS classification suggested by Apple and Muysken (2006) which notes that bilinguals code switch to achieve certain functions in their daily social interactions. Unlike the questionnaire conducted by the two previous studies, the current study collected data through conducting direct interviews with the participants to record their answers about the reasons behind their use of CS in the workplace.

Unlike the two previous studies, the current study tries to qualitatively explore the use, in terms of frequency, types and functions, of code-switching by ITs in Iraqi Higher Education state establishments by adopting the classification of CS suggested by Apple and Muysken (2006). It also tries to identify the reasons behind this use, adapting Hoffman's 1991

classification of CS functions. It tries to uncover the reasons behind ITs' use of CS in their workplace contact through conducting semi-structured interviews.

1.4   Research Questions

The study tries to answer the following research questions:

1-To what extent does CS occur within Iraqi information technicians' discourses at workplace?

2- What are the types of CSs used in each conversation under discussion?

3-What are the functions of these CSs that occurred within the conversations under discussion?

4- Why do Iraqi ITs code switch?

1.5   Research Objectives

This study aims at:

1) Exploring the frequency of CS use in Iraqi information technicians' conversations.

2) Identifying the types of code switches that occur within the participants' conversations.

3) Identifying the functions of the use of code switches in sentences that will be under discussion.

4) Exploring the reasons behind the participants' code switches.

1.6   Domain of the Study

The study is limited to the actual use of CS by information technicians in an Iraqi setting. It is restricted to male ITs who work in the public sector. By being restricted to this sampling, the researcher gives a chance for future research studies to highlight the other aspects from different perspectives by adopting different research methods, classifications, and theories. In addition, the study aims at qualitatively answering the research questions to show the type and function of the use of CS in the Iraqi context.

1.7 Significance of the Study

The current study provides the researchers and the practitioners with an authentic and dependable idea about the actual use of language alternation (CS) in the community of information technicians at a workplace in Iraqi state higher education sector. The ITs in Iraqi higher education sector code switches for different reasons to perform different functions, e.g.:

Excerpt No. (31) quoted from conversation No. (4)

2-كيف هو ال *system* الخاص بنا، هل هو شغّال؟

-How is the *system*, does it work?

The italicized word "*system*" here represents the code-switched word. The interlocutor used the English equivalent because he finds it as more suitable and briefer than its Arabic equivalent translation "منظومة الكترونية" which consists of two words. Also, he used to it during his tertiary study years because the curricula were written in English. These two justifications or reasons encouraged him to switch the word in discussion. Such usage is frequent in the sampling under discussion due to their proficiency in both languages used.

Researchers can benefit from the current study in their future studies because it gives them a clear picture about the Iraqi ITs' use of CS in their workplaces. It also reveals how the ITs' proficiencies reflected in the production of CS.

1.8   Summary of the Chapter

The chapter presents the phenomenon of CS since its emergence as a vehicle of communication among bilinguals. It starts with an introduction where the researcher introduces the communication in the workplace in general and that of bilinguals in particular. Next, the background of the study dealt with Kachru's (1985) model of English speakers and how CS took the priority in bilingualism practices studies. Then, the problem of the study presents the research problem discussed along with the study and how the previous studies dealt with the topic of CS in the workplace, their research designs, findings, results and conclusions.

Later, the researcher presents the four research questions and the four objectives where he presents how the research problem will be taken apart into four parts (questions) and the objectives behind this study. Then, the domain of the study is presented where the research deals with the scope and limitations of the study. The chapter concludes with the significance of the study where the researcher presents an idea about the study body of the literature, highlights the actual use of CS among Iraqi ITs in the workplace with an actual excerpt of their conversations.

CHAPTER TWO: Literature Review

2.1 INTRODUCTION

Code switching is considered a clear outcome of this contact in which an interlocutor may show the dominance of one language over another, or to express an endeavour of an interlocutor to include another language (vocabularies, varieties or even dialects) to meet his/her need in conversing. A significant number of studies indicate that the CS phenomenon is not a language contact phenomenon that takes place randomly but systematically (Colvin, 2018). These studies considerably discussed various perspectives of pragmatic functions of CS (Auer, 1995; Barker, 1972; Gumperz, 1977; Zentella, 1995), while others focused on the sociolinguistic perspective (Labov, 1970, Lance, 1975).

The chapter includes three main axes. The first one covers bilingualism, its levels and degrees, and how it was defined by linguists from different perspectives. The second one deals with the classification adopted in the current study (Apple & Muysken, 2005) and the categorizations of functions that occurred throughout the conversations under research as presented by Mühlhäusler (1981) and applied by Apple and Muysken (1987; 2005). The third one covers the language contact phenomena and how they were defined by sociolinguists and linguists.

2.2 Definitions of Terms

This section presents several terms that relate to the study to give the reader a primary impression of the core topic of the study.

-Communicative Competence: "a learner's ability to use language for successful communication" (Sobolevich, 2019, p.145).

-Code Switching: Gardner-Chloros (2009, p. 4) defined it as "the use of several languages or dialects in the same conversation or sentence by bilingual people".

-Tag Switching: "The switching of either a tag phrase or a word, or even both from one language into another language, or insertion of a tag from one language into an utterance that is in another language" Poplack (1980, as cited in Wahyudi et. al 2018).

-Inter-sentential Switching: "It took place between clauses or sentences, e.g. the switch occurs at a clause or sentence boundary where each clause or sentence is in a different language" (Romaine, 1995 as cited in Wahyudi et. al 2018).

-Intra-sentential Switching: It "refers to alternation in a single discourse between two languages or more, where the switch occurs within a clause or sentence" (poplack,1980 as cited in Wahyudi et. al 2018).

2.3 Language and Impact of Globalization

Diving for facts in the intrinsic, or at least complex, characteristics of bi/multilingual communities is not an easy task. Globalization could be considered as the most noticeable event that threw its shadow on humanity during the last century and it may also be so in the current century (Johannessen, 2019).

The accelerating development of technology which the last century witnessed enabled communication simultaneously in two or more languages, adopting certain media, among people from different and varied countries and races.

In general, globalization constitutes a noticeable impact on the linguistic landscape in two paths: the first, when people move, they try to learn the place language, while maintaining their previous ones. Such cross-border movements lead to producing bi/multilingual speakers as a consequence. Second, resources of across borders movements, tangible like goods or intangible ones like knowledge, contributes to the increase of demand for people with bi/multilingual capabilities (Jacquemet, 2016).

2.4 English as the World's Lingua Franca

Although the world has already witnessed the use of lingua francas internationally, and despite English is not the only language to be used as a lingua franca presently, the global rank and high reputation achieved by English had not been recorded by any language before.

The wide adoption of English as a lingua franca (henceforth EFL) is a turning point that had noticeably changed the domain of international communication (Reithofer,2020). Jenkins (2015 as cited in Kuteeva, 2019) defined ELF as "Multilingual communication in which English is available as a contact language of choice but is not necessarily chosen" (p. 2).

Day by day, ELF becomes as a norm of life for the majority of nations all over the world due to the expanding economic globalization. English today is the predominant means of communication (Wu, 2019).

It seems that there is a noticeable deal of consensus among specialists on the most prominent indicators to be noticed when willing to decide whether a language "global" or not,

how global if compared to other ones, to which domains or functions and when looking forward knowing whether a certain language shall continue to be so in future.

2.5 Bilingualism

Day by day, the ability to speak two or more languages becomes more commonly used within human communities. Whether children, young or even old use their L2 when in communication to achieve certain function(s) in a certain time within a certain context. In the context of this study, learning an L2 is where the trip of bilingualism starts from. It starts when an individual starts to learn an L2. The bilinguals' experiences are prone to several effects throughout their lifespan. Diverse stages of life are, no doubt, reflected on the individual's experience of bilingualism (Houwer & Ortega, 2019).

Simply, the term "Bilingualism" can be defined as speaking in two languages, which, in turn, means the reverse term to 'monolingualism' (Safina, 2020). It varied based on the criteria and goals of the studies. Back et al. (2014) and Cox et al. (2016) defined it as the ability to speak an L2 (Celik et al., 2020). Not only the term of bilingualism that was employed in different studies vary noticeably but also the explicitness with which the bilingualism activation is interpreted and its measurement differs as well (Surrain & Luk, 2017).

Bilingualism cannot be a static concept and bilinguals' differences is a significant matter that stands as an obstacle before comparing and classifying the results among studies (Champoux-Larsson & Dylman, 2020). For adults, to start learning an L2 is where bilingualism begins. Whether as an infant or a mature, bilingualism begins when s/he learns and understands some of the two languages.

Bilingualism research studies have a long and deep history that starts with deciphering ancient bi/multilingual texts and maps to mapping the construction of the

multilingual brain (Marian & Hayakawa, 2020). The individual bilinguals' language experiences are equally varied and featured by unique and diverse contexts of use and acquisition that may frame not only the neural or the cognitive function but also extends to the sociocultural identity.

2.5.1 Types and Levels of Bilingualism

To get a better insight into the vast field of bilingualism, the phenomenon was focused from two perspectives or levels: individual and societal bilingualism, i.e., the speaker's individual use and its occurrence in a bi/multilingual society. Both types are adopted in bilingual societies by bilinguals.

Lambert (1977) introduced another distinction. He classified bilingualism into additive and subtractive. The first type takes place when the social environment values and support both languages and take into account their advantageous knowledge. It enriches the speakers. It is considered an addition to their repertoire of knowledge and culture. It adds positive effects on their cognitive and social potentials. While subtractive bilingualism usually occurs among immigrant community members. Acquiring L2 impedes the stable existence of L1 as an established language.

2.5.2 Degree of Bilingualism

Researchers in the field of bilingualism showed considerable interest in the matter of bilingualism degree in individual speakers (Albrecht, 2004). Bilinguals had been classified into ambilinguals who master both languages equally (cf. Halliday, 1988) or equilinguals who have little competence in both languages.

As a matter of fact, bilinguals' mastery of languages is not entirely balanced. They possess one as a dominant or preferred language. Such dominance or preference is not

constant and may be changed. It subject to certain determinants, such as how frequently a bilingual uses a language (how often s/he was exposed and how variant the contexts in use were?), how proficient s/he is and what the language of the setting is. The bilinguals' personal, social and emotional perspectives also play a role in their choice of language and competence. So, it will be something habitual if the mother tongue subjects to a second language later on.

Dominance or preference of one language over another is not static and unlike or diverse between different settings, i.e., that one language is dominated in a certain setting (e.g., at work) and the other in a different setting (e.g., at home).

2.6 Dimensions of Bilingualism

Several linguists tried to establish or develop a framework for bilingualism by presenting or identifying dimensions of bilingualism (cf. Valdés & Figueroa, 1994; Bell, 2014; Edwards, 2004). The following is a quick review of what was presented by Bell (2014) with a simple elaboration to what was suggested by Valdés and Figueroa (1994).

Bell (2014) identified Several dichotomies by which bilingualism or bilingual community can be easily recognized in analysis. They also can be described as tendencies or opposites that enable linguists or practitioners to easily analyze the sociolinguistic nature of bilingualism, and they are as follows: *individual* versus *social*, *productive* versus *receptive*, *primary* versus *secondary*, *additive* versus *subtractive*, *stable* versus *dynamic* and *indigenous* versus *immigrant*.

Valdés and Figueroa (1994) suggested a classification, which was later reviewed by Valdés et al. (2006), consisting mainly of six dimensions, by which bilinguals may be classified. Below is a summarized list of these dimensions:

-Age: the dimension of age relates in one way or another to the L2 acquisition process. Bilinguals, whether during their childhood or even adulthood, acquire their L1 and/or L2 and the following languages in sequences (bilingualism sequential acquisition).

-Ability: Bilinguals may be classified, in terms of abilities competence, into *productive* and *passive*. The active bilinguals are those who proficiently use their reading and writing skills in their communication, while the passive ones are those whose reading and writing skills are not proficiently used. For him, an individual's abilities are varied if compared to those of another when learning an L2, Baker (2011).

-Balance of two languages: For Valdés and Figueroa (1994) a balanced bilingual is the individual who has a good command of both languages, i.e., who can control his four linguistic skills comfortably in his/her communication (Baker, 2001).

-Development: This dimension is similar to the dimension of the balance of two languages, i.e., "ascendant – second language is developing; recessive – one language is decreasing" (Baker, 2001).

-Context: This dimension refers to the existence of two communities: *endogenous* and *exogenous*. The first is the environment where multiple languages are used to achieve bilingual's functions of communication, while the exogenous one is that community that lacks an L2. He adds that bilingual can learn or (add) an L2 without losing his/her L1. In this framework, he presents a classification by which the context is classified into *additive* and *subtractive* (Mulyani, 2017).

- Circumstantial and Elective Bilingualism: In this dimension, bilinguals were classified into *circumstantial* and *elective* bilinguals. The first ones (who also termed *subtractive* bilinguals) are those who learn an L2 to communicate with members of the majority and as a result to

survive, while elective bilinguals (also termed as *additive* bilinguals) are those who voluntarily learn another language whether in their workplaces or educational institutions (Mulyani, 2017).

2.7 How does a bilingual brain work?

Findings of many related studies show that Bilinguals' and monolinguals' language processing activities are actively controlled by the left hemisphere and any difference (if any) is exceptional (We, 2007). The neurological processing of language is the same at both of them. Other ones revealed that there are two storages in a bilinguals' brain. One separate and another one shared. This led to the belief that a bilingual has language storage for each of his/her two languages (We, 2007).

The process starts to be more complicated when a bilingual speaks with another bilingual. Their conversation will show a change between the two languages. This is what was termed *code switching*. The following figure shows the process of decision-making in a bilingual's brain.

Bilingual speaking to

monolingual   bilingual

will use   will use   language choice

L1   L2   L1   L2

with CS   without CS   with CS   without CS   code switching
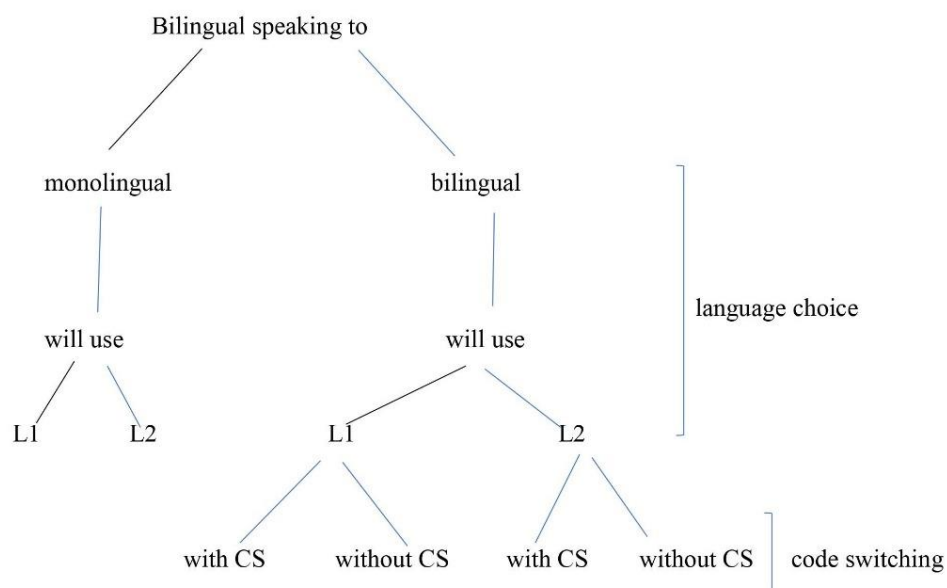
Figure (2.1) Language choice and code switching

Source: Adopted from (Wei, 2007: p.14)

2.8 Factors Influencing Bilingualism

Several factors affect bilingualism outcome and degree. L2 acquisition context is considered significant for the distinction between primary (also natural) and secondary (also artificial) bilingualism. Diving into a phenomenon of such complexity is considered a challenging issue (Treffers-Daller, 2019).

As it was seen in the comparison between *additive* and *subtractive* bilingualism, *language socialization* occupies an important space as a factor that affects bilingualism. The *positive position* toward both languages is also of significant importance that affects bilingualism in general. Other factors that affect bilingualism are *the order of acquisition*, *the duration and languages exposure frequency* are among the factors that influence bilingualism. The bilingual's age at the L2 acquisition time determines whether s/he speaks of early (acquired) or late (learned) his/her L2 and consequently bilingualism. A child who speaks more than one language is an early bilingual, while an adult who acquires an L2 is considered as a late bilingual. The distinction between them, i.e., at what age children become adults from a linguistic perspective, is of great complexity to determine but is usually considered at the start of puberty.

In this study, we are concerned with artificial bilingualism since all participants learned their languages in artificial settings.

2.9 The Speech Community

A researcher cannot dive into sociolinguistics without meeting or dealing with the notion of *a speech community*, which relates the topic under discussion in one way or the other. This term is applied to all human gatherings including entire cities. It may be not a surprise to know that such an important term has been defined differently by several linguists. Several researchers define the speech community according to the perspectives of their research studies. Other linguists suggested alternative concepts such as *social networks* and *community of practice* that are substantially similar to what is meant by the speech community.

Bloomfield's (1933) book (*Language*), which is considered by the majority of linguists as the foundational text of American linguistics, firstly produced the term *speech community* (Bell, 2014). For him, it is "[A] group of people who use the same system of speech signals." (p. 29). From a linguistic perspective, Hymes (2020) defined it as "the organization of features within a community.", while Kachru's (2001) definition "[A] speech community crosses political boundaries … does not necessarily represent one religion or culture … comprise[s] idiolects and dialects." (p. 105) dealt with the idea of the speech community from a sociolinguistic perspective. We also see that Labov (1966) describes New York as a speech community that share a group of norms that may be not necessarily adopted by consensus.

As far as the current study is concerned, the term speech community applies to the sampling of the study because its members share certain linguistic terms and norms that enable them to communicate fluently in their workplace.

2.10 The Phenomenon of Code Switching

Code switching research is "an expanding field, and disputes about nomenclature abound" (Keller,2020, p.12). In a review of Weinreich's pivotal work *Language in Contact* (1953), Vogotsky originated the term codeswitching to refer to a phenomenon that can be considered as old as bilingualism itself. Despite this long history, CS did not attract the linguists' attention until 1970. It had been the core of a diverse of scholarly perspectives, firmly established in a variety of theoretical theories, basing on different methodologies, and endeavouring to achieve different goals. Alvarez Caccamo, 2002; Wheeler & Swords, 2004; Deggans, 2013 (as cited in Elkins & Hanke 2018) refer that CS happens when bilinguals select their styles of interaction, both verbal and nonverbal, and specify performance depending on the situation and interlocutors. After this eclectic background, it may be astonishing that CS had been given a few distinct, sometimes contradictory, definitions.

Gumperz (1982) defined code-switching as "the juxtaposition within the same speech exchange of passages of speech belonging to two different grammatical systems or subsystems" (p.59). Myers-Scotton (as cited in Keller, 2020) defines code-switching as the "use of two or more languages in the same conversation, usually within the same conversational turn, or even within the same sentence of that turn." (p.12).

Gardner-Chloros (2009, p. 4) defined CS as "the use of several languages or dialects in the same conversation or sentence by bilingual people. It affects practically everyone who is in contact with more than one language or dialect, to a greater or lesser extent". Theoretically, CS is "a subfield of bilingualism research which itself can be further divided into various branches, depending on the core questions of the investigation" (Keller,2020, p:11). Zeller (2020) states that CS may require diverse word classes, ranging from mere words into the dominant language of discourse to changing a language of larger parts of discourse, and may occur at different positions in the sentence.

Speaking more than one language, per se, may refer to the question of more than one culture, which, in turn, may affect the speakers' identity. Hanif Kureishi's (1990 –2017) novels, for example, shed lights on characters who are Britains with Indian backgrounds and usually refer to this issue (Drobot, 2018). The cultural, social and linguistic differences is a significant obstacle in front of the immigrants to coexist with the native speaker's community. research is "an expanding field, and disputes about nomenclature abound" (Keller,2020, p.12). In a review of Weinreich's pivotal work *Language in Contact* (1953), Vogt originated the term codeswitching to refer to a phenomenon that can be considered as old as bilingualism itself. Despite this long history, CS did not attract the linguists' attention until 1970. It had been the core of a diverse of scholarly perspectives, firmly established in a variety of theoretical theories, basing on different methodologies, and endeavouring to achieve different goals. Alvarez Caccamo, 2002; Wheeler & Swords, 2004; Deggans, 2013 (as cited in Elkins & Hanke 2018) refer that CS happens when bilinguals select their styles of interaction, both verbal and nonverbal, and specify performance depending on the situation and interlocutors. After this eclectic background, it may be astonishing that CS had been given a few distinct, sometimes contradictory, definitions.

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2.11 Appel and Muysken's Classification of Code Switching

Appel and Muysken (2005) categorized CS into three categories:

(a) *Tag-switching*: It is a type that requires the use of a tag, a parenthetical or an exclamation in a language that is different to the language of the rest of the sentence. An example is:

'OYE (listen), when I was a young boy, I lost my study books.'

As we can see the Spanish word *oye* represented the second language used in the sentence. The tag, parenthetical or exclamation serves as an emblem of the bilingual character of an otherwise monolingual sentence. That was why Poplack (1980) had termed this category of CS *emblematic* CS. Below are some examples to show where CS occurs. The place of CS occurrence is *italicized* for clarity.

-Exclamation: *You know,* قد تمطر االسماء غداً.

-Translation: You know, it may rain tomorrow.

-Tag: هذا قلمي, *isn't it?*

- Translation: This is my pen, isn't it?

-Parenthetical: الدراجة، *which was bought recently*، مركونة خارج منزله.

-Translation: The motorcycle, *which was bought recently*, was parked out of the house.

(b) *Intra-sentential switching*: It is a switch that occurs within the same sentence boundaries. Poplack (1980) described it as the most complicated category because it may occur at a word, clause, or even sentence boundaries. Gumperz (1982) cited an English-German sentence to clarify this category:

- Go and get my coat *aus dem Schrank da*.

Translation: Go and get my coat *out of the closet there* (Gumperz, 1982).

(c) *Inter-sentential switch*ing: It refers to a language alternation within the course of one conversation. It occurs between sentential boundaries where the language of the preceding sentence is different from that of the subsequent one, as it refers to. Eldin (2014) and MacSwan (1999) refers that the mastery of inter-sentential switching requires linguistically proficient conversationalists. The following is an example where inter-sentential switching is used in a Malay-English sentence:

- *Itula. Mama dah agak dah. Adiknidemamni*. Pity you. Your voice also different already.

- Translation: That's why. I knew it. You are having a fever. Pity you. Your voice sounds different (Stapa & Khan, 2016).

2.12 Functions of Code Switching

As applied by Appel and Muysken (2005), there are six essential functions of CS (Syafrizal, Gailea & Pratiwi, 2019):

1. **Referential function**: Bilinguals use their L2 (i.e., switch code) to substitute a word that they did not remember in their L1. They also use L2 (i.e., switch code) because they think that it is more appropriate to sustain the continuity of the conversation.

2. **Directive function**: Bilinguals use their L2 (i.e., switch code) to exclude or include someone who is un/welcomed to participate in their conversation.

3. **Expressive function**: Bilinguals use their L2 (i.e., switch code) to stress their self-identity or to express their feelings to others in the course of conversation.

4. **Phatic function**: Bilinguals use their L2 (i.e., switch code) to stress part of their conversation that has an importance or to express a change in tone of speaking.

5. **Metalinguistic function**: Bilinguals use their L2 (i.e., switch code) to comment on another language.

6. **Poetic function**: Bilinguals use their L2 (i.e., switch code) to tell jokes or puns, aiming at amusement or entertainment.

Jakobson (1960) and Halliday et al. (1964) proposed a conceptual framework from the conversational perspective when investigating CS. By following such a functional framework, Mühlhäusler (1981) presented six functions of code switching: *referential, directive*, *metalinguistic, poetic, phatic* and *expressive*, and. Later, Appel and Muysken (1987; 2005) applied these functions of language code switching to verbal communication (Othman, 2015). The current study adopted Apple and Muysken (2005) classification of CS and its functions as presented by Mühlhäusler (1981) and applied by Apple and Muysken (1987; 2005).

This study applied the above-mentioned classification and functions to the conversations under research to explore the functions behind using CS in the participants' conversations.

2.13 Language Contact Phenomena

2.13.1 Borrowing

In general, linguists defined *Borrowing* as a linguistic norm of change by which one language (the borrower) adds a word to its lexicon by borrowing it from another language (the lender). It is a process by which a foreign lexical item is temporarily borrowed by another language (a recipient language) with a probability for integration in future (Jaggers, 2015; Poplack, 2016). Whereas Haugen (as cited in Jaafar, Buragohain & Haroon, 2019) referred to borrowing as "a kind of stealing".

Literature, media and the speakers' widespread use are considered important sources of introducing foreign lexical items to the monolingual community (i.e., the recipient language) (Buang, Abdul Halim & Rarnakresinin, 2017). Others like Katamba (2015) states that euphemistic and aesthetic purposes are reasons that led to the use of such a phenomenon to form a speaker's identity. While Trask (2013) referred to such a phenomenon as a type of copying because borrowed lexical items are never returned to the giver or donor language.

2.13.2 Diglossia

The French term 'diglossia' was originated by the sociolinguist Marçais to describe the diglossic employment within the Arabs' context (Kyriakou, 2019). While 1959 witnessed the outbreak of Ferguson's theory about the classical diglossia which was broadened later on by Fishman.

According to Ferguson's (1959),

> *Diglossia is a relatively stable language situation in which,*
> *in addition to the primary dialects of the language (which*
> *may include a standard or regional standards), there is a*
> *very divergent, highly codified (often grammatically more*
> *complex) superposed variety, the vehicle of a large and*
> *respected body of written literature, either of an earlier*
> *period or in another speech community, which is learned*
> *largely by formal education and is used for most written and*
> *formal spoken purposes but is not used by any sector of the*
> *community for ordinary conversation* (p. 336).

Basing on their prestigious position, Ferguson classified the functional domain of these two varieties into H=High variety and L=Low variety (Hasselbach-Andee,2020). The first one is used for formal situations such as in writing, governmental correspondence, press, media, etc. While the latter is used for informal situations such as among family and friends. In brief, L has no standard variant and written form commonly while H is the language of literature and thus possess a written standard form. Ferguson gave Modern Greek, Arabic and the language case in Switzerland as good examples that reflect such a phenomenon (Hasselbach-Andee,2020).

Deviating from that of Ferguson, Fishman (1972) broadened this definition by replacing the two different varieties that belong to the same language with two different languages (Hasselbach-Andee,2020). Today, linguists adopt a non-unified definition for the phenomenon of diglossia. "Some adhere to the stricter definition given by Ferguson, while others apply the term to any situation in which two or more linguistic varieties are used for different domains.

In general, Wardhaugh & Fuller (2015) defined diglossia as "a situation in which there are two distinct codes with clear functional separation; that is one code is employed in one set of circumstances and the other is an entirely different set" (p.90).

2.13.3 Transfer

As a viral phenomenon of multilingual discourse (Koch & Günther, 2021), [T]ransfer is known as the transfer of structures, rules and meanings from L1 to L2 (Riehl, 2014 as cited in Koch & Günther, 2021). Its complexity expresses the controversy which had sometimes covered this phenomenon and consequently its impact had been amply documented in the SLA area.

Research studies of transfer have constituted a prominent role in SLA area research (Ortega, 2008) and sparked researchers' interest during the last fifty years (Cuza, 2012). Since the seminal work of Weinreich (1953), scholars in the fields of L2 acquisition (e.g., Liceras, 1989; Jarvis & Pavlenko, 2008; Gass & Selinker, 1992; Schwartz & Sprouse, 1996; Montrul & Slabakova, 2003) have been revolved around the psychological and sociolinguistic aspects of this phenomenon trying not only to examine the mechanism of such a process but also what gets transferred.

The well-known theory of 'Transfer to Somewhere', presented in (1983) by the linguist Andersen, tried to illustrate the circumstances under which transfer happens. His illustration explains that the compatibility between L1 elements and the acquisition of natural principles leads to the occurrence of transfer particularly when L2 elements lead to generalizations at L1.

Criticizing and describing it as incomplete, Kellerman (1995) clarified that Andersen's theory neglected to take into consideration the common similar elements between L1 and L2. In turn, Kellerman (1995) proposed his 'transfer to nowhere' theory that stressed: "there may

be a transfer that has nothing to do with the similarities with the L2 and where the operation of the L2 is not taken into account, that is, transfer to nowhere" (Kellerman, 1995, 137).

2.13.4 Translanguaging

The term 'translanguaging' is borrowed from 'translinguifying', a term coined by Baker (2001) based on the English translation of Williams' (1994) Welsh term trawsieithu (Qi & Zhang, 2020). William produced the term trawsieithu to describe his observation of a bilingual phenomenon practised by students in schools across Wales in their learning (Wei, 2016). This phenomenon was adopted as a pedagogical practice and as a means of communication between the teacher and Welsh students in class. English was the medium of instruction, but both parties were observed providing information through the Welsh language as a mixed output.

Translanguaging provides teachers and learners with an opportunity to be familiar with meaningful and flexible ways and methods by which bi/multilingual effectively use their linguistic resources (repertoire) to communicate and use multiple languages. For Wei (2018), translanguaging is a reference to the multimodal, multisensory and multilingual resources used by the individuals to present meaningful social context.

2.13.5 Interference

Weinreich (1953,1979) defines cross-language interference as a bilingual's deviation from the notions and standards due to language contact (Chmiel, Janikowski & Cieślewicz, 2020).

Soloveva & Egorova (2019) notes that the native speaker's prolonged exposure to and/or immersion in the L2 leads to the occurrence of interference, i.e., the regular use of a different language will cause interference. Students of foreign languages, even the proficient

ones, practice interference (Soloveva & Egorova, 2019). While Lamberger-Felber and Schneider (2009), considers interference as an outcome of the auricular/visual effect of the SL on the structure and/or elements of the TL.

2.14 Literature Review and Related Studies

Code Switching is a communication phenomenon that can be observed in bilingual individuals and has been studied in three different disciplines, namely sociolinguistics, psycholinguistics and linguistics, since the 1970s (Yelemou, 2015). Krasina and Mustafa (2018) have different view about this issue. A simple search about the early beginnings of CS studies shows that language contact studies date back to ancient times and have a long history when natives did not understand foreigners or newcomers, they sometimes called them barbarians (Krasina & Mustafa, 2018). Milroy & Muysken (1995, p.7) considers CS as "the central issue in bilingualism research". Most of the work on CS in the past few years have focused on linguistic factors.

At present, the workplace research studies cover many areas and aspects of workplace contexts and interactions including but not limited to meeting talk, the role of sense of humour, daily talks among employees or workers, narrative texts or dialogues, and bilateral talks during transactional achievement routine. All these areas contributed significantly to the increase of the literature body of workplace contact and communication.

The linguistically oriented research on CS mainly deals with the grammatical perspectives of the CS. Most of the studies deal with the CS between two European languages, at least one of the three world languages, i.e., English, Spanish or French the examined language pairs is involved. Looking at earlier research of code-switching but moving towards a more specific environment, the workplace, one can easily see that this which is literature related to contact phenomena in the workplace revolved around discourse struggles, social

inequality and ideology, more than the process of code-switching itself (see, Prego-Vazquez, 2007, Wodak, Krzyżanowski, & Forchtner, 2012).

The early years of the fifth decade of the 20th century witnessed the start of the growing research interest in the CS process as an interactional phenomenon in bi/multilingual communities. Weinreich's (1953) study entitled *Languages in Contact* and Vogt's (1954) study entitled *Language Contacts* are considered as roots for the following studies related to such interactional phenomenon. At the beginning of the 1980s, CS, itself, stood as a research topic. According to Auer (1984), the CS literature body may be dealt with through three main aspects:

1-*Grammatically by* researching in the grammatical perspectives of the two (or more) codes (languages) which both prohibit or permit CS to occur.

2-*Interactionally* by explaining the function of individual CS items in continuous interaction.

3-*Sociolinguistically* by describing the stimulating factors and talk organizations which boosting the occurrence of CS.

Both communication and linguistic phenomena at the workplace were sources of interest of several studies (cf. Saito's (2011) *Managing Confrontational Situations: Japanese Male Superiors' International Styles in Directive Discourse in the Workplace*; Nair-Venugopal's (2013) *Linguistic Ideology and Practice: Language, Literacy and Communication in a Localized Workplace Context in the Globalized*; Woodhams' (2014) *'We're the Nurses': Metaphor in the Discourse of Workplace Socialisation* and Bosher and Stocker's (2015) *Nurses' Narratives on Workplace English in Taiwan: Improving Patient Care and Enhancing Professionalism*.

The topic of workplace discourse was addressed by several researchers from several perspectives (cf. Chui et. al, 2016; Hazel & Svennevig, 2017; Alhamami, 2020). In their study, Chui et. al. addressed the topic of code switching from a sociolinguistic perspective in which

they threw light on challenges that were faced by newly recruited foreign workers in multilingual communities. By adapting the model of Gee's (2011) discourse analysis to investigate empirical workplace discourse, they concluded that the process of code-switching was used by foreign newcomers and local veterans to achieve workplace mutual identification and socialization.

Both Hazel & Svennevig (2017) and Alhamami (2020) addressed CS from the interactional perspective. For Hazel & Svennevig (2017) the Conversation Analysis was used as a methodological framework to discuss and present the functions and limitations behind using such an approach to answer the research questions and other issues related to language alternation (CS) like the use of lingua franca and the proficiency in the language. To illustrate how major issues related to language choice are dealt with when organizing such settings, the researchers introduced two excerpts. First, two German national students at a university in Denmark approach an information desk located in the International Office with an inquiry. While the second was taken from a theatre rehearsal of an international theatre ensemble in Denmark where the participants' multilingual contact was observed. The study found out that language choice was an essential resource for workplace social life permanence.

Holmes (2020) refers to a noticeable increase in literature body on workplace discourse in the last few decades. The majority of these studies dealt with spoken code-switching in informal contexts with a minor portion for the investigation of institutional milieus such as classrooms and offices (Jonsson, Mahootian & Sebba, 2012). The development of the theoretical approaches, the types of discourses and methodologies as well as analytical approaches started to attract the attention of the theorists and sociolinguists alike.

As for the context of the Arab countries, the study by Alhamami (2020) dealt with the language barriers faced by the sector healthcare workers in multilingual Saudi hospitals. It dealt

with the causes, consequences, and solutions by using a qualitative study to explore language barriers. The study was based on interviews with thirty-seven physicians, nurses and other healthcare workers, and patients. The study found out several consequences, causes and solutions to get control of such language barriers. The findings were introduced in three essential sections. The first one introduced the language barriers causes resulted from multilingualism and addressed barriers related to patients, healthcare workers, and hospital policy in order. The second one introduced the language barriers negative consequences that healthcare workers patients faced in their workplace. The third one dealt with the solutions and strategies used by the interviewees in the hospital to get control of language barriers, and solutions concerned with an accent, dialect and language or any cultural barriers that may face.

As for the Iraqi context, Al Heeti & Al Abdely (2016) addressed the types and functions of code switching used in Iraqi doctors' workplace conversations. The methodology of analysing the study data was content analysis. The researchers used a population of 65 Iraqi doctors who were affiliating to the Ministry of Health and Ministry of Higher Education and Scientific Research. Seventy-six per cent of the population were males with an age mean of 39.6. The overwhelming majority of the population were graduated from Iraqi Universities.

Qualitatively, the researchers analyzed the data collected through tape recording and direct observations. All the participants responded to the questionnaire conducted but half of them refused to have their daily workplace conversations to be recorded. The study adopted Hoffman's 1991 classification for code switching functions.

The study concluded that English language proficiency was a basic skill that enabled doctors to have switched in their workplace conversations. It also concluded that the English-based instruction had notably contributed to the high communicative and linguistic proficiency of the participants.

The study under research analyzed the codeswitching which occurs within the spoken interaction among co-workers in their routine daily professional activities. These conversations are expected to show and reflect the use of English as a language of work, L2 interaction, the level of social relations and cultural diversity.

Presently, people used to have some problems of over-communication regardless of what slang language, code or dialect they use. For Krasina and Mustafa (2018), Human speech is not the essential or even the only probable means of communication any more.

The current study is proposed to analyze the code switching which occurs within the verbal interaction among co-workers (information technicians) while they do their duties in the workplace (Iraqi higher education establishments). Such a study lies within the interactional perspective as addresses the interaction among co-workers in a workplace.

2.15 Conceptual Framework

To the best of the researcher's knowledge, language choice among information technicians at the workplace is an area that did not get enough researchers' attention till now. The topic at hand needs to be more investigated by researchers and sociolinguists in particular. As for the conceptual framework for the current study, the current study adopted Appel and Muysken's (2005) classification of code switching to classify the code switches that occurred within the participants' conversations as it shows in the form No. (1). While he adopted Appel and Muysken's (2005) functional model of CS to classify the functions of CSs that occurs in the participants' conversations as it shows the form No. (2).
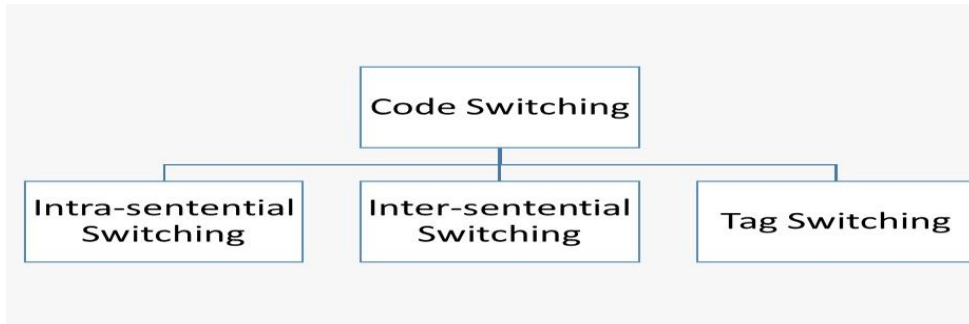
Figure (2.1) Appel and Muysken's (2005) classification of code switching
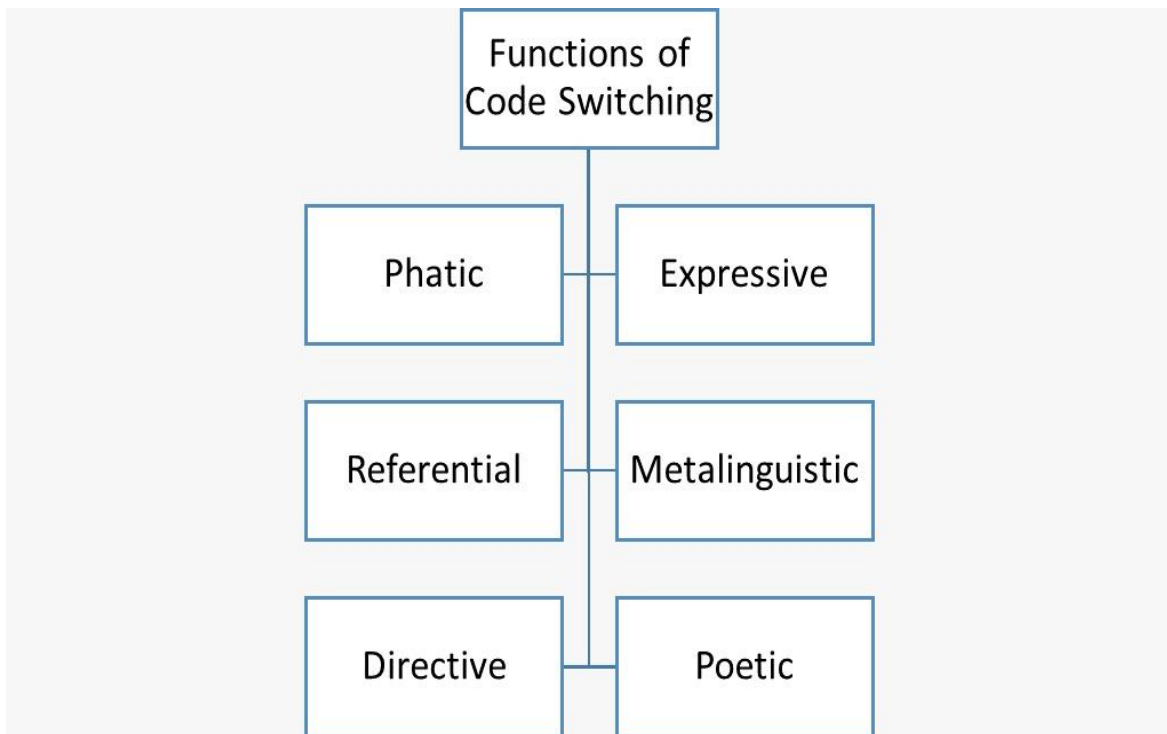
Figure (2.2) the CS Functional Model as applied by Appel and Muysken (2005)

2.16 Summary of the Chapter

As a core of interaction among co-workers in an organization or an institution, the multilinguals' language alternation (CS) attracted the researchers' interests in the last few decades. Many studies, book chapters, and even dissertations were fully dedicated to discussing

the topic of bilingualism in the workplace. The following is a quick overview of this body of literature to give you an impact or image about the scope of this research.

Holmes' (2020) *Language in the workplace: Occasional Review;* Steel and Heritage's (2020) *inter-cultural Contexts: Exploring the Experience of Indigenous Employees in Mainstream Australian Organizations*; Jason and Blasjö's (2020) *Translanguaging and Multimodality in Workplace Texts and Writing;* Alhamami's (in press) *Language Barriers in Multilingual Saudi Hospital: Causes, Consequences, and Solutions*; Canagarajah's (2020) *Transnational Work, Translingual Practices, and Interactional Sociolinguistics*; Hazel and Svennevig's (2017) *Multilingual Workplaces – Interactional Dynamics of the Contemporary International Workforce*. Holmes' (2017) *Intercultural Communication in the Global Workplace, Critical Approaches.*

CHAPTER THREE: Research Methodology

3.1 Introduction

Workplace setting remains an important source of L2 interaction in the age of globalization. Regardless of the mother language they share, bilingual co-workers possess a remarkable linguistic repertoire which they easily use to shift between languages whenever it necessitates.

Unlike the quantitative approach method, the qualitative approach method provides a thorough analysis of CS in the interactional context. Some examples of qualitative CS frameworks used by some well-known sociologists like Gumperz's (1982) Interactional Sociolinguistics and Auer's Conversation Analysis (1984, 1995, 1998) (Promprakai, 2018) Dissertation. In CS studies in workplace settings, the qualitative approach is usually employed to explain the functions of CS in co-workers' interactions, either with peers or with speakers from other professional disciplines.

The qualitative approach can indeed reveal the importance of CS as a communicative tool in workplace communities, it can reveal the extent to which interlocutors adapt CS, identify and confirm the regularity of CS. Previous studies such as those summarised in chapter two have no doubt broadened our understanding of CS in the workplace setting as a rich source of language alternation due to the workers' different background and cultures. The following figure maps out the steps required throughout the course of the study on the topic under research.
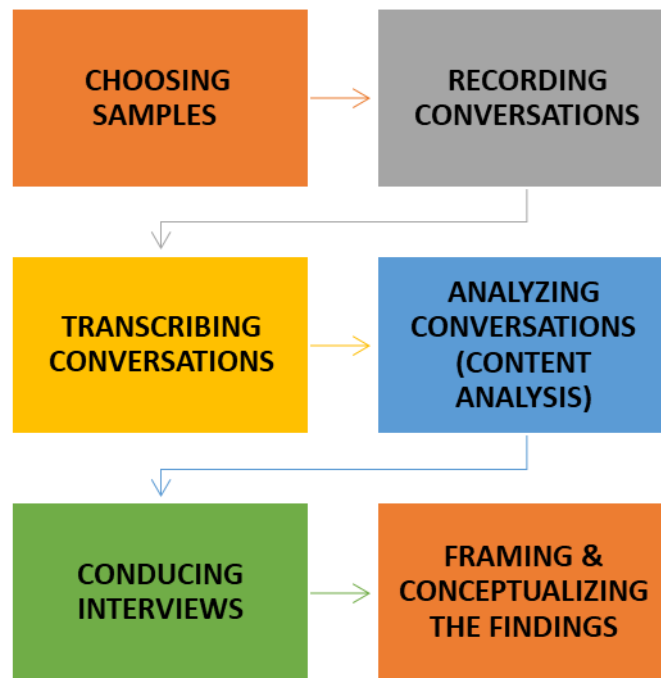
Figure (3.1) the stages of conducting the study

3.2 Research Design

According to Tracy (2020), qualitative research is a prevalent action in a variety of disciplines and scholarly projects, including social sciences scholarly projects, inter-communities' relationships, and cultures. Intentionally or unintentionally, professionals at workplaces like police officers, doctors and managers used to conduct qualitative research. They used to interview, listen to patients, record criminals' confessions or interview new employees. They also listen carefully to be fully acquainted with certain information; they identify the important information to give the suitable solution about the problems they may face in their daily activities.

Qualitative research is defined as a way of investigating a phenomenon, thoroughly and holistically, by collecting informatively rich data using a certain flexible research design (Polit & Beck as cited in Moser & Korstjens,2017). "Qualitative research aims to provide an in-depth understanding of real-world problems" (Moser & Korstjens,2017, p.275). It also "captures

people's actual lived experiences, which leads to an in-depth and robust understanding of phenomena" (Lemon & Hayes, 2020, p.604).

Creswell (2018) presented some characteristics that were earlier proposed by him (2016) and other researchers such as Hatch (2002) and Marshall and Rossman (2016) as *characteristics of qualitative research*. These characteristics included but were not limited to: *a natural setting, the researcher's participation as a key instrument*, *multiple sources of data* and *emergent design*. A simple look at the current study will indicate that it included these characteristics, so the researcher found that the qualitative approach suits the study as it met the requirements of the qualitative approach proposed by Creswell and other researchers.

As a dominant in CS phenomenon analysis, the qualitative approach was used in the study to explore the use of CS among information technicians in Iraqi state higher education establishments as a worthwhile phenomenon related to language contact.

Name	Age	Gender	Educational Level	Length of the Interview	Time of the Interview
p.1	35	M.	M.A	16.2	21/10/2020
p.2	40	M.	M.A	16.2	21/10/2020
p.3	31	M.	M.A	15.43	22/10/2020
p.4	29	M.	B.SC.	15.43	22/10/2020
p.5	37	M	B.SC.	15.17	25/10/2020
p.6	34	M.	BSC.	15.17	25/10/2020
p.7	34	M.	M.A	15.4	03/11/2020
p.8	32	M.	M.A	15.4	03/11/2020
p.9	36	M.	B.SC.	15.14	04/11/2020
p.10	41	M.	M.A	15.14	04/11/2020
p.11	39	M.	M.A	17.11	24/11/2020
p.12	38	M.	M.A	17.11	24/11/2020
p.13	39	M.	M.A	16.00	15/12/2020
P.14	39	M.	B.SC.	16.00	15/12/2020

Table (3.2) description of the participants' background

3.3 Research Sampling

As a rich source of language alternation within the same conversation (CS), the sampling of this study was restricted to male information technicians who work at the state sector – Ministry of Higher Education and Scientific Research establishments. The number of participants will not be less than 6 participants with more than an hour of recordings. The gender of the participants will depend on the availability at the time of recording because attendance is not obligatory for employees under corona-virus epidemic precautionary measures. The whole sampling lives in the capital of Iraq (Baghdad) and holds different academic attainments (Bachelor degree or Master degree or PhD degree). The researcher observed their daily conversations to identify the switches that occur within these conversations.

3.4 Data Collection

The data of the study are collected from two main sources. The first source is seven conversations recorded in the workplace (the Iraqi Ministry of Higher Education-Headquarter). The findings of these conversations are dedicated to answering the first three research questions delivered in chapter 1. The second source is seven semi-structured interviews conducted with the participants. The findings of these interviews are dedicated to answering the fourth research question.

A mobile phone recording application was used to record the conversations. To avoid distraction and to maintain contextual factors and keynotes, conversations were transcribed on the same day of recording. The open-ended questions of the semi-structured interviews are few in number and intended to elicit views and opinions from the participants as (Creswell,2018) recommends.

The researcher takes the stance of the *focused witness* as suggested by Tracy (2020, p.123), or as it is usually called "observer as participant" as suggested by (Gold, 1958, p. 221), or "reactive" observer as suggested by (Angrosino, 2005, p.732). The researcher takes this role because it allows the researcher to enter a scene with an organized vision about the topic under research, the participants proposed and the time they will be active in the setting.

3.5 Data Analysis

The study adopted *a content analysis* method to analyze the data collected. The data (which proposed to be collected from the setting) is analyzed according to the classification proposed by Apple & Muysken (2005) of code switches. This classification (which was adopted in the current study) categorizes code switches into three types: *Tag-switches, Intra-sentential and Inter-sentential.* The switches which occur within the participants' conversations are distributed on three columns represents the three types of code switches. Next, the researcher shows the frequency percentage of code switches on a coloured pie chart to indicate the frequency of each type of CS. Later on, the functions of CS that occurred with the seven conversations are analyzed according to Appel and Muysken's (2005) functional model by which the switches that occurred are distributed onto the functions mentioned in this model. Finally, the interviews are downloaded and transcribed as written forms and their results are shown as a pie chart.

After being recorded by a mobile phone recording application, the conversation is downloaded and transcribed. To avoid distraction, the transcription is ristricted to the sentences under research only (i.e., data reduction). Next, the data is analyzed and code switches are arranged in rank order to show the highest and lowest frequent type of code switching that occurs within the participants' conversations (i.e., data presentation).

3.6 Pilot Study

There is an agreed-upon idea that research work should be subject to an objective evaluation and be open to experts' critiques. Tracy (2020, p.358) reports that "Pilot research provides an overview of the research and the feasibility of the larger study, and points to areas that need further research". It is an important procedure for the fact that it provides about the setting under research. Method clarity, findings accuracy, and authenticity of conclusions reached; all contribute to the right and sound research work (Long & Johnson, 2000).

Despite the time shortness of the pilot study which lasted for four minutes; it gave the research a real impact on the ITs' language alternation in the workplace. It showed that (i) the researcher's presence at the setting may embarrass the interlocutors when conversing and (ii) the interlocutors should be noticed about the start of the recording to exclude their jokes and unrelated businesses like eating, listening to music or praying.

The researcher took advantage of the pilot study and took these two things into his consideration while conducting the study.

3.7 Trustworthiness

It is agreed upon that all research studies and knowledge outcomes must subject to critique and evaluation before their adoption or using them as a guide in real life. Trustworthiness may be defined as the Hippocratic Oath of qualitative researchers (Gabarre & Gabarre, 2020). Failing to guess the study worth, the clarity of its method, the precision of its findings, and the fidelity of assumptions made or results reached, will have dire consequences. Unclear or ambiguous findings may result in wasted efforts and time of the parties involved in such a process, whereas wrong findings may result in using harmful or dangerous practices when

applied. To get a full insight into the meaning of reliability and validity, it is necessary to be acquainted with the different perspectives of validity and reliability and their definitions as suggested by some pioneering qualitative researchers.

To ensure trustworthiness, the researcher (i) translates the transcribed data by an authorized translator, (ii) the researcher presents the participants' conversations as data stored in a flash ram or CD as much as possible and (iii) conducts member checking as a process of ensuring the validity of the current qualitative research.

Despite finding validation may take place along the research process stages, researchers are required to prove their studies accuracy and authenticity to increase and ensure the credibility of their findings (Creswell, 2015; Creswell & Creswell, 2018).

Adopting the guidelines recommended by Creswell (2015, 2018); the researcher takes the study findings back to two of the participants to check how accurate the transcription and the translation of their conversation were and how realistic and fair the results were. The procedure the researcher followed was taking the findings as a semi-polished product back to two of the participants. They saw the transcribed and translated form of their conversation and how the researcher interpreted and systematically analyzed their data. They approved the findings and agreed with the results the researcher concluded. Their impacts were presented in written forms as Creswell (2015) recommended.

3.8 Summary of the Chapter

Researchers are always required to adopt a trustworthy method when conducting scientific research for the integrity of the scientific path. Research methodology represents the cornerstone of every scientific research. It is the "how" of constructing systematic knowledge. It enables researchers to verify and exclude information based on common sense, an opinion, skewed or misleading information or even misinterpretation.

One's paradigm and way of understanding control his/her knowledge rapprochement and generation (Fernández-Navas et al., 2020). The development of these paradigms over time has led to the creation of research methodologies in keeping with one's way of understanding the world. "Qualitative research requires both the kind of humility that acknowledges that the researcher always has a particular standpoint and the kind of openness that is prepared to risk having that standpoint changed" (Attia & Edge, 2017).

The current study adopted qualitative research because it gives clear results that mirror the actual language use in the workplace as a setting of the study as we will see in chapter four.

CHAPTER FOUR: Findings and Discussion

4.1 Introduction

Findings and conclusions of the current study give readers an important image about the reality of language alternation performed by Iraqi ITs in Iraqi public sector workplace where the interlocutor's linguistic proficiency is a decisive factor in producing the alternation under research. The workplace is a rich source to investigate language contact phenomena such as CS, translanguaging, borrowing and diglossia, and other linguistic varieties such as pidgins and creoles which bilinguals or normal speaker produce to achieve a certain function in his/her interactional daily contact. Chapter four presents the findings of four research objectives presented in chapter one as follows:

1) Exploring the frequency of CS use in Iraqi information technicians' conversations.

2) Identifying the types of code switches that occur within the participants' conversations.

3) Identifying the functions of the use of code switches in sentences that will be under discussion.

4) Exploring the reasons behind the participants' code switches.

Chapter four comprises three main sections: *the main findings of the study answer the four research questions* and *a summary of the chapter*. The *main findings* section presents a preview and a brief about the findings of the study. Then, the *answers to the four research questions* are presented in four sub-sections supplied with tables and figures for clarity. The chapter ends with a *summary* that presents a brief about what was mentioned in the chapter.

4.2 Main Findings

The findings of the current study depend mainly on the answers and analysis of the data collected from the participants' workplace as a setting of the study under research. The findings revealed that the first conversation witnessed the highest number of switches among other

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conversations. They belong to the highest level of communicative competence the participants have. It also revealed that the intra-sentential CS was the prevailing category throughout the participants' seven conversations as the statistics in table No. (2) shows. As the conversations unfold, the diversity of functions in CS use starts to be more than earlier.

It also showed that the majority of the CSs functions performs a referential function as it shows in table No. (3) page 70 and pie chart No. (2) page 71 in which the frequency of each function is shown. Finally, the findings revealed that the participants use CS for diverse reasons as shown in table No. (4) in which the researcher shows how frequent each function is in each conversation and pie chart No. (2) where the percentage of each of the frequency of each function in the conversations is shown.

4.2.1 Findings of Research Question 1

R.Q.1- To what extent does CS occur within Iraqi information technicians' discourses at workplace?

To answer this question, the researcher calculated the words of the seven recorded conversations and calculated the CSs to get the exact percentage of CSs occurred within their conversations, e.g., conversation No. 1 is consisted of (2182) words and recorded the of (460) switches within it which constitutes the percentage of (21.082) if compared to the total number of conversation words. While the second one consisted of (1589) words and witnessed the occurrence of (140) switches, this number of switches constitutes (8.811) if compared to the total number of conversation words. If we generalized this calculation to the rest of the conversations, the results were as follows:
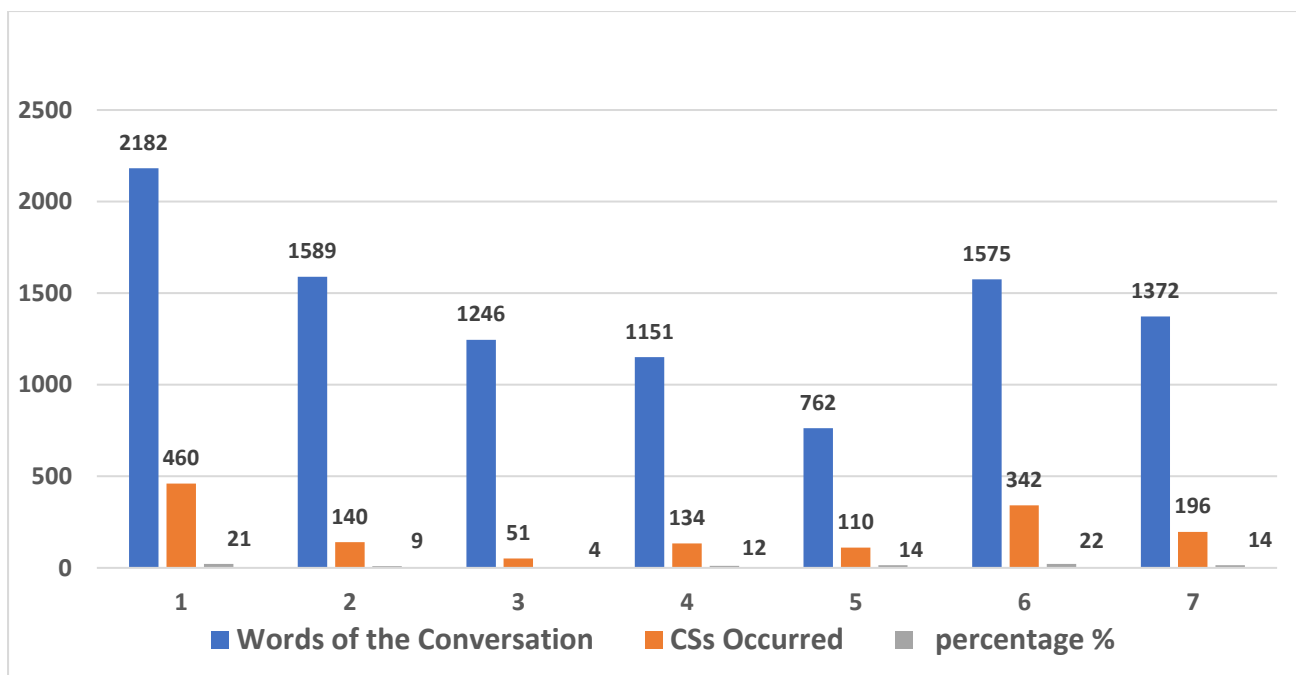
Bar Chart No. (4.1) Percentage of CSs within the Conversations

The horizontal numbers (1, 2, 3, …….) at the bottom of the bar chart refer to the number of the conversation. As we see above, the number of CSs swings from (51) in conversation No. (3) which shows the lowest number of CSs occurrence to (460) as in conversation No. (1) which shows the highest number of CSs occurrence. This high number of CS occurrence comes as a result of the participants' linguistic proficiency.

For many, such a linguistic phenomenon is natural as interlocutors naturally and/or instinctively insert lexical units derived from their repertoire. Bilinguals usually resort to a language of prestige to show off of their educational attainment and to show off their social status which may be higher than that of the addressee's (Romanowski & Jedyanak, 2018).

As for the current study, linguistic proficiency comes as a result to the language of instruction and curricula which the participants were taught in their tertiary studies. The place where the participants studied contributes significantly to the participants' linguistic

proficiency, e.g., the participants of the conversation No. (1) are postgraduates who graduated from China and Australia where the language of instruction and curricula are English. The career experience also contributes to the participants' linguistic proficiency. Poplack (1980) noted the importance of code switching to measure the degree of bilinguals' proficiency in both languages. Intra-sentential switching requires inserting lexical units within a single sentence which necessitate a high proficiency in the grammatical structures of both languages used, while the inter-sentential requires proficiency lesser than the intra-sentential because it does not require inserting lexical units within a single sentence. Below are some examples that occurred in the conversations under study.

-Example No. (1):

1-يعني يطلع خيار أسمه USB؟

p.1-Do you mean USB option will appear?

-Referential Function.

Excerpt No. (39) in conversation No. (1)

-Example No. (2):

1-الموقع فيه ثلاثة سيرفرات، طبعاً جميعها منصبة dedicate.

p.1- The website consists of three servers, all of them installed as dedicate.

-Referential Function.

Excerpt No. (7) in conversation No. (7)

Note: The underlined words (henceforth) represent the code-switched words.

Example No. (4)

1-إذن سيكون هنالك لكل واحد username و password خاص به، هل ستكون لكل الموظفين؟

p.1-Then, there will be a user name and a password.

-Referential Function.

Excerpt No. (13) in conversation No. (3)

-Example No. (4):

1- أنا أستعمل cable .

p.1-I use a cable.

-Referential Function.

Excerpt No. (89) in conversation No. (4)

-Example No. (5):

2- هل ستحفظ الأنظمة الخاصة بك في سيرفرات أو....

p.2-Will you store your systems in servers or ……?

-Referential Function.

Excerpt No. (20) in conversation No. (5)

-Example No. (6):

2-نعم، هل يتوفر لدينا ال active code أم لا؟

p.2-Do we have the Active Code or not?

-Referential Function.

Excerpt No. (2) in conversation No. (6)

-Example No. (7)

1-يعني يجب أن نعمل <u>update</u>...

p.1-We should do <u>updating</u>…

-*Referential Function.*

<div align="center">Expert No. (9) in conversation No. (7)</div>

Example No. (8):

1- ال <u>router</u> فيه نوعين من المنافذ، الأزرق والأصفر.

p.1-The <u>router</u> has two types of outlets: the blue and the yellow ones.

-*Referential Function.*

<div align="center">Excerpt No. (159) in conversation No. (1)</div>

Example No. (9):

1- ماهو معنى ال <u>Dedicate</u> ؟

p.1-What is the meaning of <u>dedicate</u>?

-*Referential Function.*

<div align="center">Excerpt No. (13) in conversation No. (2)</div>

Example No. (10):

1-أعتقد بان ال <u>power</u> يتسبب بمشكلة أحياناً.

p.1-I think that <u>power</u> causes problem sometimes.

-*Referential Function.*

<div align="center">Excerpt No. (14) in conversation No. (4)</div>

Example No. (11):

2ـ بالنسبة لنا، نحن ليس لدينا <u>network</u> مربوطة.

p.2-For us, we don't have <u>network</u> connected.

-*Referential Function.*

<div align="center">Excerpt No. (22) in conversation No. (3)</div>

Example No. (12):

<div align="right">1-يجب ان <u>نفرمته</u>.</div>

p.1-We have to <u>format</u> it.

-*Referential Function.*

<div align="center">Excerpt No. (8) in conversation No. (6)</div>

Example No. (13):

<div align="right">1-نعم، حدث فيها <u>download</u> <u>low</u> كما يُقال.</div>

p.1-Yes, a <u>low</u> <u>downloading</u> happened, as it is said.

-*Referential Function.*

<div align="center">Expert No. (14) in conversation No. (7)</div>

-Example No. (14):

<div align="right">1-ال <u>server</u> يشتغل اليوم، ولايوجد فيه شيء.</div>

p.1-The <u>server</u> is working today, nothing to worry.

-*Referential Function.*

<div align="center">Excerpt No. (16) in conversation No. (3)</div>

Example No. (15):

<div align="right">2-كلا، كلا، <u>اليوزرية</u> ...لايمكن أن تكون هنالك أضافة <u>لليوزرية</u>.</div>

<div align="center">64</div>

p.2-No, no, the users…it is not possible to add users.

-*Referential Function.*

Excerpt No. (18) in conversation No. (4)

Example No. (15):

٢ـ فبأمكانك العمل مؤقتاً أو تُرسل الحاسبة إلى جماعتنا لكي يُفرمتوا لك الحاسبة أو إعادة تنصيب أو مايروه مناسباً لها.

p.2-You can work temporarily or send the computer to the specialists to format it or reinstall

what they find it requires.

-*Referential Function.*

Expert No. (15) in conversation No. (7)

4.2.2 Findings of Research Question 2

R.Q. 2- What are the types of CSs used in the conversations under discussion?

To answer this research question, the researcher presents a table to show the resulting

frequency. In the table, the first column is dedicated to the conversation number, while the

following three ones are dedicated to the types of CS. So, the results were as follows:

Conversation	Tag CS	Intra-sentential CS	Inter-sentential CS
1	3	453	4
2	2	136	2
3	1	50	0
4	0	135	0
5	0	110	0
6	0	335	7
7	2	182	12

Table No. (4.2) shows the frequency of each type of CSs in the conversations

As we see in the above statistics, the first conversation witnessed the occurrence of only (3) tag switches and (4) inter-sentential switches while (453) intra-sentential switches were occurred within the same conversation and so on. It seems clear from the above-mentioned statistics that the intra-sentential CS ranked first in all conversations and this use is an indicator of the participants' linguistic proficiency.

The diverse CS uses refers to the proficiency of the speaker (i.e., the participant). The continuity in communication is often considered as an indicator of the linguistic proficiency of the speaker because CS is already considered as an index to linguistic competency among bilinguals as (Ahmad & Widen, 2018) points out. How frequent and diverse the participants produce CS depends on several factors such as years of experience, education level, and where did he study (abroad or inside his country). These factors contributed significantly to produce these different and diverse findings in the table above. Below are some examples from the conversations under study.

-Example No. (1):

2-نعم، <u>auto</u> ، هو من سيختار. ولكن أنت من نظمت ال <u>schedule</u> العائد له.

P.2-Yes, <u>auto</u>, it will choose, but you who arranged its <u>schedule</u>.

-Intra-sentential switching.

Excerpt No. (13) in conversation No. (1)

-Example No. (2):

1- <u>ISO</u> !

p.1-<u>ISO</u>!

-Tag switching.

Excerpt No. 23 in conversation No. (1)

-Example No. (3):

1-<u>Image</u>، <u>system image</u> أو هكذا شيء؟

p.1-<u>Image</u>, <u>system image</u> or something like this?

-Intra-sentential switching.

Excerpt No. (17) in conversation No. (1)

-Example No. (4):

2-<u>RAM</u>.

p.2- <u>RAM</u>.

Excerpt No. 53 in conversation No. (1)

-Inter-sentential switching.

-Example No. (4):

2- ماهو عمل ال <u>server</u>؟

p.2- What is the function of the <u>server</u>?

-Intra-sentential switching.

Excerpt No. (22) in conversation No. (2)

Example No. (5):

2-<u>Every month</u>.

p.2-Every month.

-Inter-sentential switching.

Excerpt No. (15) in conversation No. (1)

Example No. (6):

1- وأضع <u>dish</u> وأحضر <u>cable</u> وأربطه ب <u>adaptor</u> ، لازم يتحول...

p.- I put <u>dish</u> and prepare a <u>cable</u> and connect it with an <u>adaptor</u>, it should be moved…

-Intra-sentential switching.

Excerpt No. (16) in conversation No. (2)

Example No. (7):

2- فمثلاً إذا كنت تستخدم <u>version</u> 2010 وأنا أستخدم 2017 فسيكون هنالك عدم دقة في نقل البيانات.

p.2- For example, if you were using 2010 version and I use 2017 version, data will be transferred inaccurately.

-Intra-sentential switching.

Excerpt No. (21) in conversation No. (3)

Example No. (8):

1-<u>PUBG</u> !

-PUBG!

p.1-Tag switching.

Expert No. (117) in conversation No. (7)

Example No. (9):

2- فمثلاً إذا كنت تستخدم 2010 version وأنا أستخدم 2017 فسيكون هنالك عدم دقة في نقل البيانات.

p.2- For example, if you were using 2010 <u>version</u> and I use 2017 version, data will be transferred inaccurately.

-*Intra-sentential switching*.

Excerpt No. (21) in conversation No. (3)

-Example No. (10):

1-أخشى أن تكون هنالك مشكلة في ال <u>cable</u>.

p.1-I fear of a problem in the <u>cable</u>.

p.-*Intra-sentential switching*.

Excerpt No. (5) in conversation No. (4)

-Example No. (11):

2-قد تكون المشكلة في ال <u>switch</u>، ال <u>switch</u>.

p.2-The problem may be in the <u>switch</u>, the <u>switch</u>.

-*Intra-sentential switching*.

Excerpt No. (7) in conversation No. (4)

-Example No. (12):

2- لايوجد تطوير في <u>اللابتوبات</u>.

p.2- There is no updating in <u>laptops</u>.

-*Referential Function.*

<div align="center">Excerpt No. (6) in conversation No. (5)</div>

-Example No. (13):

<div align="right">2- في هذه الحالة من الأفضل أن أشتري <u>laptop</u> جديد.</div>

p.2-In this case, it is better to buy a new <u>laptop</u>.

-*Intra-sentential switching.*

<div align="center">Excerpt No. (12) in conversation No. (5)</div>

-Example No. (14):

<div align="right">1-فقط على ال <u>network</u>، انها لاتعمل <u>wireless</u> .</div>

p.1-Only through <u>network</u>. It does not work as <u>wireless</u>.

-*Intra-sentential switching.*

<div align="center">Excerpt No. (152) in conversation No. (6)</div>

-Example No. (15):

<div align="right">1-يجب ان <u>نفرمته</u>.</div>

p.1-We have to <u>format</u> it.

-*Intra-sentential switching.*

<div align="center">Excerpt No. (8) in conversation No. (6)</div>

-Example No. (16):

<div align="right">2-اول شيء قبل ذهابك للصيانة يجب أن نعمل <u>check</u>.</div>

p.2-The first thing to do before going to maintenance is to <u>check</u> it.

-Intra-sentential switching.

<div align="center">Expert No. (3) in conversation No. (7)</div>

-Example No. (17):

<div align="right">1-من ال <u>options</u> ...</div>

p.1-Out of the <u>options</u>…

-Intra-sentential switching.

<div align="center">Expert No. (6) in conversation No. (7)</div>

4.2.3 Findings of Research Question 3

R.Q.3-*What are the functions of these CSs that occurred with conversations under discussion?*

The answer to this research question was by reflecting the results on a bar chart to reflect how frequent these functions were. The frequencies resulted are shown as percentages to give readers an accurate image of these functions frequencies. We may find that the participants used CS to achieve certain functions. The following examples are cited to reflect these uses:

-Example No. (1):

<div align="right">1-فأخبرني بأني يجب أن أعمل <u>فرمتة</u>.</div>

P.1-They told me that I have to <u>format</u> it.

<div align="center">Arabic/English: excerpt No. (2) in conversation No. (1)</div>

In the above example, the participant used CS to achieve a *referential* function. He used it because he found the English transliterated equivalent (فرمته) is more appropriate to maintain the continuity of the conversation.

-Example No. (2):

1-service خدمة نقدمها، نقدمها لمن؟ نقدمها لل researcher للناس الباحثين.

p.1- A service that we serve, serve it to whom? We provide it to researchers.

Arabic/English: excerpt No. (31) in conversation No. (2)

In the above example, the participant used CS twice to achieve *metalinguistic* functions. He used his L2 to comment on another language and clearly deliver his communicative message.

-Example No. (3):

2-كيف هو أداء جهازك أثناء ال gaming؟

p.2-How is the performance of your device during gaming?

In the above example, the participant used CS to achieve a *referential* function. He used it because he found the English equivalent (gaming) is more appropriate to maintain the continuity of the conversation.

Arabic/English: Expert No. (97) in conversation No. (7)

-Example No. (4):

1- ISO !

p.1-ISO!

In the above example, the participant used CS to achieve a *phatic* function to stress part of their conversation that has an importance by expressing a change in tone of speaking (exclamation).

Excerpt No. 23 in conversation No. (1)

-Example No. (5):

1-لايتوافق ، هنالك <u>درايفرات</u> لاتتوافق مع ال<u>version</u> الخاص بال <u>WINDOWS</u>.

p.1-It is incompatible, there were <u>drivers</u> incompatible with the <u>WINDOWS</u> <u>version</u>.

In the above example which contained three code switches, the participant used CS to achieve a *referential* function in all of them. He used it because he found the Arabic transliterated equivalent (درايفرات) and the two English equivalents (version) and (WINDOWS) are more appropriate to maintain the continuity of the conversation.

Excerpt No. (130) in conversation No. (6)

-Example No. (6):

1-ولذلك تحتاج حاسباتكم الى <u>ترسيت</u> لكي تعمل بشكل صحيح.

p.1-Because of these bad features, you should <u>restart</u> your computer to work well.

-*Referential Function.*

Arabic/English: Excerpt No. (1) in conversation No. (3)

In the above example, the participant used CS to achieve a *referential* function. He used it because he found the English transliterated equivalent (ترسيت) is more appropriate to maintain the continuity of the conversation.

-Example No. (6):

29- بالحقيقة، هو مجموعة من <u>الكودات</u> التي أخذناها من المجلات.

29- Actually, it is a group of <u>codes</u> that we took from the journals.

-*Referential Function.*

Arabic/English: Excerpt No. (29) in conversation No. (2)

In the above example, the participant used CS to achieve a *referential* function. He used it because he found the English transliterated equivalent (الكودات) is more appropriate to maintain the continuity of the conversation.

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The statistics conducted indicates that the referential function ranked first with (447) times and the phatic and metalinguistic functions were occurred only (7) and (6) times respectively. While the second conversation recorded (447) times of occurrences for the referential function and only the metalinguistic function with (2) times were occurred throughout the conversation and so on. From the above-mentioned statistics, it seems that the referential function ranked first in all the conversations under research as seems clear in the following chart bar.
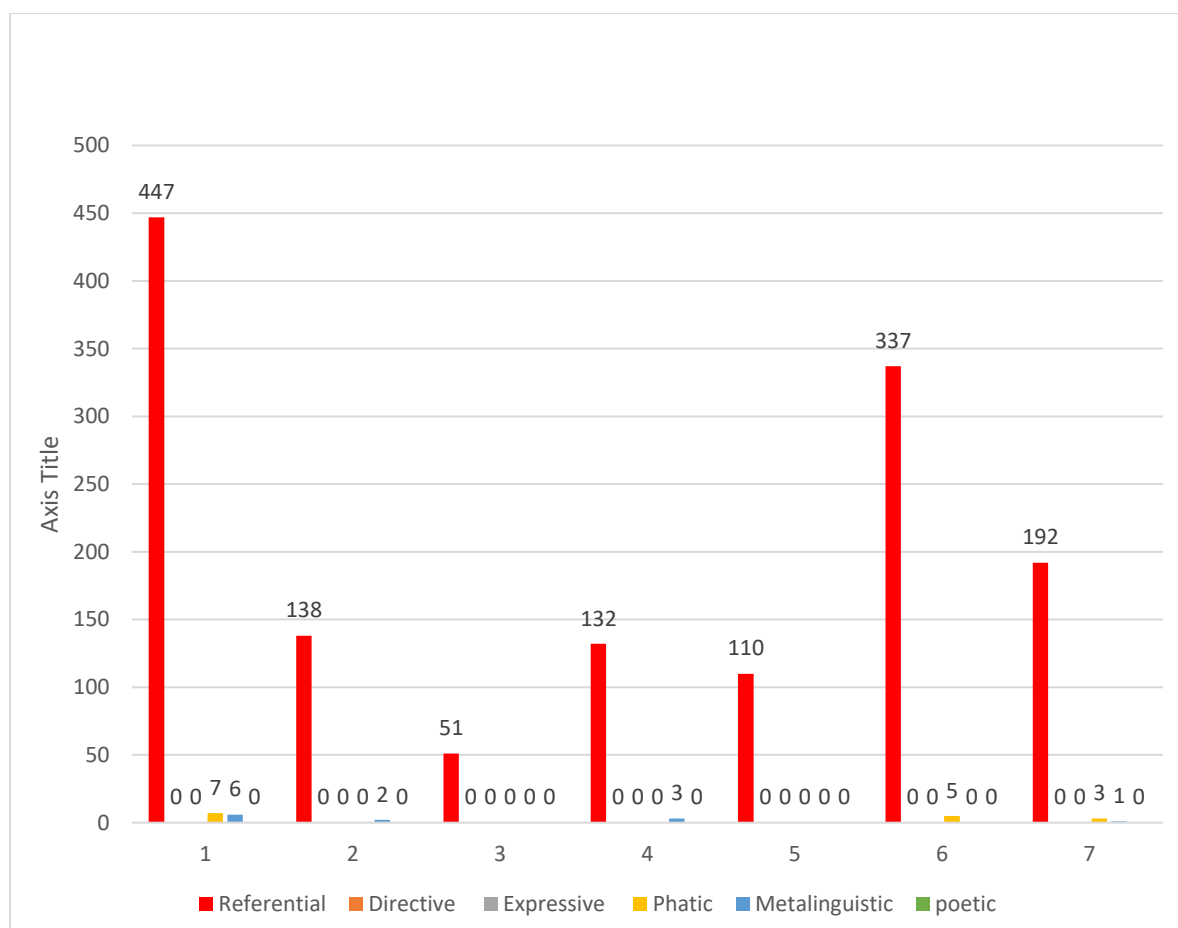
Bar chart No. (4.3) shows the frequency of each function in each conversation

4.2.4 Findings of Research Question 4

R.Q.4-Why do Iraqi ITs code switch?

This question is answered by a question asked to the (14) interviewed participants and their answers are distributed as it is shown in the following table:

Participant	Reasons behind CS
1	To occupy the lack of the vocabulary in my mother language.
2	To tell the exact meaning.
3	Because it is more frequent in IT community.
4	Easiness.
5	To give the exact meaning.
6	To give the exact meaning.
7	Brevity and Practicality.
8	Practicality and Brevity.
9	Practicality.
10	Practicality.
11	Brevity.
12	Brevity.
13	Practicality.
14	Practicality.

Table No. (4.4) shows the participants' reasons behind CS

Then, the answers are presented in a pie chart to give a clear image about the frequency of each answer as it is represented in the following pie chart.
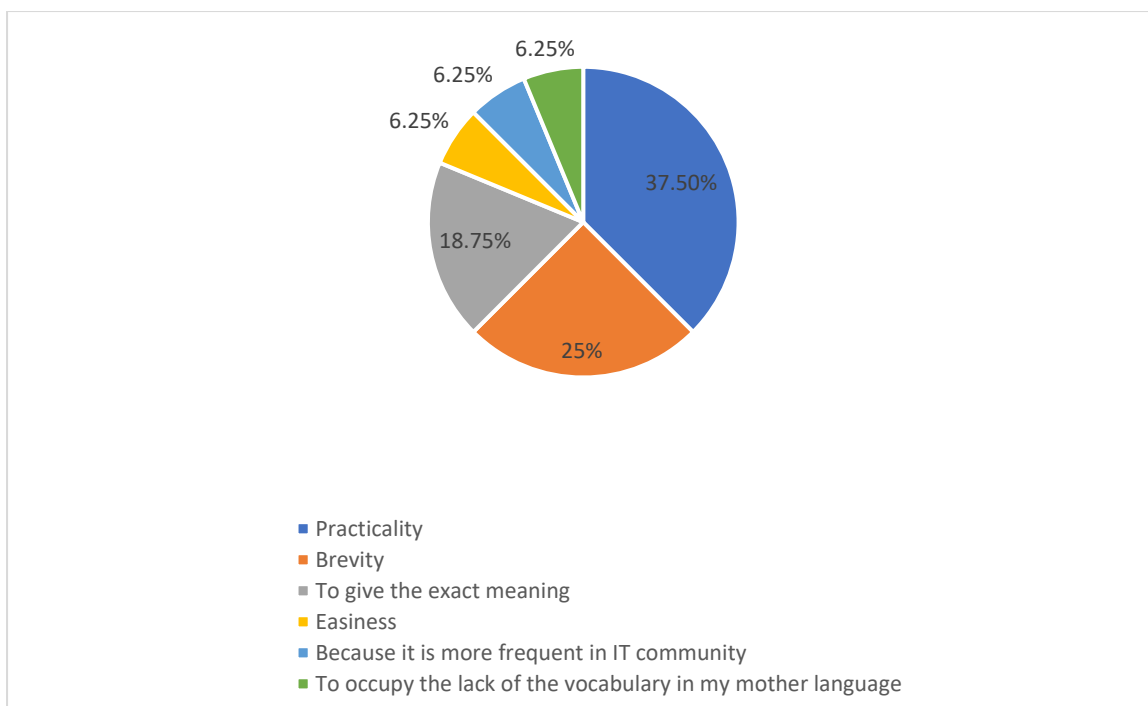
Pie Chart No. (4.5) shows the percentage of CS function frequency

As table No. (4.4) and pie chart No. (4.5) shows, the participants switch codes for different reasons to achieve different functions when conversing. Participants No. (7), (8), (9), (10), (13) and (14) switch code because they find it more practical to achieve the functions wanted when conversing, while participants No. (11) and (12) switch code because it gives them brevity in words used in their conversations.

Other participants such as participants No. (1), (2), (3) and (4) switch codes for different reasons such as: to occupy the lack of the vocabulary in his L1, to tell the exact meaning, the high frequency of the vocabulary used in IT community and for easiness when conversing respectively. While participants No. (5) and (6) switch code to give the exact meaning. The following are examples cited from the data collected to clarify the use of these reasons:

Example No. (1): *Practicality*

2-وماذا إذا أضفت delete + shift + control؟ ماذا سيظهر لك من خيار؟

p.2-What will appear if you click control + shift + delete?

Excerpt No. (6) in conversation No. (1)

The participant No. (2) uses the English words: *control*, *shift* and *delete* because he finds them more practical than their arabic equivalents (*إحذف، حول و سيطر*). The English words and their function are learned during his study as they were written in English because the curricula were in English**.**

Example No. (2): *Brevity*

11-يجب ان <u>نفرمته</u>.

p.11-We have to <u>format</u> it.

Excerpt No. (8) in conversation No. (6)

The participant No. (11) uses the English transliterated word (*نفرمته*) because he finds it briefer than its arabic equivalent (*نعيد تنصيبها*) which coprises of two two words.

Example No. (3): *Brevity*

1-إذن سيكون هنالك لكل واحد <u>username</u> و <u>password</u> خاص به، هل ستكون لكل الموظفين؟

p.1-Then, there will be a <u>user name</u> and a <u>password</u>.

Excerpt No. (13) in conversation No. (3)

This is another example about the use for brevity by which the participants No. (5) uses the two words (password) as one word instead of its Arabic equivalent (كلمة مرور) which comprises two words. This brevity justifies its use in conversations in bilingual conversations.

Example No. (4): *To give the exact meaning*

2-كما أسلفت لك، سنشتري <u>laptop</u> وليس <u>desktop</u>.

p.2-As I told you, we will buy <u>laptops</u> not <u>desktops</u>.

Excerpt No. (8) in conversation No. (3)

The participant No. (6) uses the English words *(laptop* and *desktop)* because he finds them accurate meanings more than their arabic equivalents (حاسبة محمولة و حاسبة منضدية) which distract the other interlocutor**.**

Example No. (4): *For easiness*

4- النظام الثاني الذي يُستخدم عالمياً هو نظام EBSCO ، مجمع قواعد البيانات الذي أشتركنا فيه ...

P.4- The second system internationally used is EBSCO, it is a database compound in which we subscribed…

Excerpt No. 53 in conversation No. (2)

The participant No. (4) uses the English acronym *(EBSCO)* because he finds it easier than the Arabic equivalent of its origin *(Elton B. Stephens Company)* in communication.

Example No. (5): *Because it is more frequent in IT community*

2- إذا تتذكر الحاسبة لدى (أم سرى) كانت حاسبة واحدة ومتصلة ب network.

P.2- If you remember there was a computer at Sura's mother connected with a network.

Excerpt No. (2) in conversation No. (2)

The participant No. (3) uses the English word (network) instead of its Arabic equivalent (الشبكة العنكبوتية أو شبكة الأنترنت) because the participant used to use it due to the English-written curricula.

Example No. (6): *To occupy the lack of the vocabulary in my mother language.*

1-السؤال الآن: أنا أريد أن أربط router ثاني على هذا ال router.

-Now, the question is: I want to connect another router to this one.

Excerpt No. (168) in conversation No. (1)

The participant No. (1) uses the word (router) because there is no equivalent in the participant's mother language (as far as the researcher know).

There may be other reasons to switch code if the number of the participants was maximized and this may give more diversity to the reasons behind code switching.

4.3 Summary of the Chapter

The data collected from the seven conversations conducted with the 14 participants were used to answer the first three research questions. A comprehensive view of the findings of the first three research questions shows that the participants' linguistic competency played an essential role in CS production. Several factors such as experience, the country of study and how long the exposure to L2 language was, contributed mainly to the production of CS.

The answer to the fourth research question was taken from a semi-structured interview conducted with the participants. The findings revealed that they switch code to achieve certain functions. The functions are different and diverse as table No. (4.4) and pie chart No. (4.5) show.

CHAPTER FIVE: Discussion and Conclusions

5.1 Introduction

The escalating level of bilingual practices at both the societal and individual levels produce new chances for the research communities to judge its knowledge level reflected upon these communities' members and improve its linguistic theories and models. Bilingualism academic practitioners and specialists feel comfortable with the fact that they not only have a lot to say about the relevant linguistic theories and models but also make an important addition to the socio-political discussions and dialogues about the world current situation (Wei, 2013).

Scholars' contradictory viewpoints indicate that contact is about to be the exclusive source of language alternation and change (Thomason, 2020). Such an extreme position is a homogeneous mixture of opinions relates to historical linguistics, i.e., that language contact is in charge of only lexical difference and any other slight structural replacements.

5.2 Review of the main findings

Any systematic reviewing of the compendium of the findings requires accurate attention to the nuances among participants. The impressive qualitative research characterizes by diverse qualitative data sources to produce a more authentic and dependable interpretation of the research problem under discussion (Creswell, 2018).

As it can be seen from the above-mentioned findings, the findings of the R.Q.1 refer to that the first conversation ranked first in CS occurrence. These high occurrences of CSs were natural results of the bilinguals' high linguistic proficiency. As to R.Q.2, The statistics

mentioned in table No. (2) showed that *intra-sentential* switching was the most frequent and ranked first in all the conversations under study.

As for R.Q.3, the analysis of the seven conversations data revealed that the *referential* function was the predominant one throughout the seven conversations, while the findings of the R.Q.4 chart showed that (37.50%) of the participants code switch for *practicality*. It also showed that (25%) of the participants code switch for *brevity* while (18.75%) of the participants code switch to *tell the exact meaning*. The percentage (6.25%) of the participants is given to three functions which are:

- *to occupy the lack of the vocabulary in their mother tongues.*

- *It is more frequent in ITs community.*

- *For easiness.*

5.3 Discussion of the findings

Code switching, per se, is a challenging practice that requires a lot of attention and accuracy to produce the definite meaning required when conversing. The results of the study confirm that relevant and adequate information about workplace setting, and context may help a researcher to successfully navigate this research area to show the reality of using language contact phenomena in them and to get a full understanding of such a phenomenon from different perspectives. Analyzing language alternation practices proves how attention to such details yield such complex and nuanced interpretation of linguistic behaviour.

If compared to a previous study presented by Al-Heeti and Al-Abdely's (2016), we can find that the second one adopted *the content analysis* method as a tool to analyze data that were already collected by tape recordings and direct observations. It found out that "Iraqi doctors

use intra-sentential code-switching more frequent than the two other types though it requires more knowledge in the L2.". It also found out that the participants (Iraqi doctors) take advantage of their L2 for communicative purposes. If we highlight the commonalities, we find the intra-sentential CS is the predominant type in the participants' conversations and interviews of both studies. We also find that the participant's linguistic competency played an essential role in producing switches that contribute to the continuity of the communication between the interlocutors in both studies. These two similarities in findings make the current study findings in line with Al-Heeti and Al-Abdely's (2016) findings.

While Alhamami's (2020) study found out that "language barriers generate a great deal of frustration and make Saudi hospitals less efficient". It also found out that "individuals' choices regarding what languages and dialects they speak are not arbitrary, but are instead informed by language policies, legislation, and individuals' navigation of social norms". The findings of the current study basically in line with these findings because socialization requires a minimum of linguistic skills that should be possessed by bilingual community members and the setting, topic and time are essential factors in establishing and continuing communication.

A simple look into the study findings shows that bilinguals switch code not only in a systematic methodological path but due to personal motivations. This proves that the use of language and language itself is an individual feature that is difficult to be modelled in a certain predicting or explicative model.

The current study proved that the language contact phenomenon of CS is commonly used by bilinguals in a certain setting to achieve certain functions as was shown in (4.1.4). CS occurred within this study achieved varied functions due to the individual bilingual was

influenced by several factors such as topic and time which, in turn, prone to any changes that may happen in the speakers' setting. It may be concluded that the linguistic phenomenon of CS is something habitual in bilingual's everyday conversations.

As it was clear throughout the data collected from the seven recorded conversations conducted with ITs in their workplaces that the intra-sentential CSs ranked first in these data. This type of CS i.e., the phrases or smaller constructs or constituents switching within a sentence or clause boundary, is the most complex one among other types, as in the following examples where the Italic words exemplify the intra-sentential CSs where the interlocuter switch from Arabic into English:

Excerpt No. (79)

‫-هنالك *cable* واصل لها من ال *laptop* .‬

-There is a *cable* coming from the *laptop*.

(Conversation No. 6)

The speaker should have a high proficiency in the language used to maintain the syntactic rules of both language pairs used (cf. equivalence constraint). The high occurrence of intra-sentential CS is a clear evidence to the proficiency of the participants.

The occurrence of inter-sentential CS ranked second in the conversations recorded while tag CS ranked third due to its scarcity.

To answer R.Q.1: *To what extent does CS occur within Iraqi information technicians' discourses at the workplace?* table No. (4.1) was presented to show how conversation No. (1) witnessed the most percentage of CSs occurrence. This takes place because of the participants' linguistic competency (i.e., P. No. 1 and P. No. 2). This competency is justified by their expertise as ITs and their career years in foreign or multilingual companies or agencies which,

in turn, pushed them to be exposed to an L2 (English). The first participant holds M.SC. and graduated from Australia where English is essentially adopted in learning, while the second one also holds M.SC. and graduated from China where English is often adopted in learning. The same criteria apply to other participants where the academic attainment and years of expertise yielded linguistic competency that, in turn, reflects a high frequency of switching when conversing at the workplace.

As for R.Q.2, *What are types of CSs used in the conversations under discussion?* The table No. (4.2) was presented to clearly show how frequent each type of CS was in the conversations under study. The statistics mentioned in the table showed that the *intra-sentential* type was the most frequent switching and ranked first in all the conversations under study.

As to R.Q.3: *What are the functions of these CSs that occurred with conversations under discussion?* Table No. (4.3) was presented to show how frequent each CS function occurred throughout each conversation.

The statistics showed that the *referential* function ranked first with (447) in the first conversation while the *phatic* and *metalinguistic* functions ranked second and third with (7) and (6) respectively. The conversation witnessed the absence of *directive*, *expressive* and *poetic* functions in this conversation. The second conversation recorded the occurrence of referential function (138) times, while the *metalinguistic* function recorded only (2) occurrences. The conversation witnessed the absence of the *directive*, *expressive*, *phatic* and *poetic* functions in this conversation.

The statistics showed that the *referential* function was the only function that occurred throughout the third conversation with (51) occurrences. The fourth conversation witnessed the absence of the *directive*, *expressive*, *phatic* and *poetic* functions, while it recorded the

occurrence of the *referential* function with (132) occurrences and the *metalinguistic* function occurred only (3) times.

The fifth conversation witnessed the occurrence of the *referential* function only throughout the conversation with (110) occurrences. The statistics also showed the occurrence of the *referential* and *phatic* functions only throughout the conversation with (337) and (5) occurrences respectively. The statistics were concluded with the occurrence of the *referential*, *phatic* and *metalinguistic* functions with (192), (3) and (1) respectively in the seventh conversation.

All these statistics showed the occurrences of CS functions as produced by Appel and Muysken (2005). It showed that the *referential* function ranked first in all the conversations under study. The following are some examples that explain how these functions are used in the conversations under study:

-Example No. (1):

2-أخشى أن تكون هنالك مشكلة في ال <u>cable</u>.

p.2-I fear of a problem in the <u>cable</u>.

Arabic/English: Excerpt (5) in conversation No. (4)

In the above example, the participant used CS to achieve a *referential* function. He used it because he found the English equivalent (cable) is more appropriate to maintain the continuity of the conversation.

-Example No. (2)

1- أعتقد بانه يستنسخ ال <u>registry</u> بأكمله.

-I think that it will copy the whole <u>registry</u>.

Arabic/English: Excerpt (19) in conversation No. (1)

In the above example, the participant used CS to achieve a *referential* function. He used it because he found the English equivalent (cable) is more appropriate to maintain the continuity of the conversation.

As for *R.Q.4:" Why do Iraqi ITs code switch?",* to answer this question; the researcher interviewed the (14) participants and asked them five questions. One of these questions was "*Why do you code switch*?". The interviews are recorded and qualitatively analysed. Analysis results show that different reasons are behind the use of CS in workplace.

The answers were as table No. (4) and pie chart No. (2) showed. The pie chart showed that (37.50%) of the participants' code switches for practicality. It also showed that (25%) of the participants' code switches for brevity while (18.75%) of the participants' code switches to tell the exact meaning. The percentage (6.25%) of the participants is given to three slices which code switch either to occupy the lack of the vocabulary in their mother tongues or because it is more frequent in ITs community or for easiness.

Conclusions indicate that high linguistically proficient bilinguals are more skilled in managing the two languages in use and this evidently will be in line with other previous studies such as that of (Bialystok, 2018; Costa & Santesteban, 2004; Crinion et al., 2006; Perani & Abutalebi, 2005; Poulisse & Bongaerts, 1994).

As humans, it is not possible to recognize several speakers with the similar background because their linguistics performance may be influenced by many factors and it is hard to be identical. Participants' diversity and varied linguistic efficiency had contributed to producing such numerous numbers of CSs. Commonalities and differences such as that related to the societal background, the country of study, time of exposure to L2 and years of living in a monolingual, bilingual or even multilingual community had thrown their shadow on the

participants' efficiency which contributed directly or indirectly in producing such conversations in the workplace.

To conclude, I would like to indicate that interpreting and analyzing old or mature bilinguals' code switching is not an easy job to be achieved because it is strongly related to the speakers' intent and this intent is hard to be analyzed or understood without being in situ. The researcher's continuous presence in the setting enabled him to know and then analyze the conversation under discussion.

5.4 Implications of the study

Theoretically and methodologically, the findings of this dissertation present an evident addition to the field of Sociolinguistics, particularly the subdivision area of CS.

The results present a full insight into the phenomenon of language alternation (CS) in the Iraqi public sector workplace. The study in general and its results in private gives readers and future researchers in special an impression about the effect of linguistic proficiency on the production and frequency of CS when conversing.

Future researchers may benefit from the findings of the current study by considering them as guidance for any future studies that may qualitatively deal with the phenomenon of CS in the Iraqi workplace. It also may be a guide for future studies that deal with the occurrence of language contact phenomena among engineers of ITs as they possess a noticeable level of linguistic proficiency in English as a language of instruction.

5.5 Limitations of the study

The study has several limitations. The first limitation relates to the sampling size. A larger sampling size may contribute to further exploration about the frequency and functions of CS. The second one relates to the setting (Baghdad-Iraq) where they took place. Changing the setting may give different and diverse findings. The third one relates the gender of the participants. The participation of females in such studies may impact the study especially that relates to frequency. The fourth one relates the research design (or method of research). To use another research design (i.e., quantitative or mixed research design) may give different findings. The fifth one relates to the semi-structured interviews. How different the number of the participants and questions may give different findings and add another limitation to this study.

5.6 Suggestions for future studies

As we can see from the findings, discussion and conclusion, the nature and use of CS in the workplace is a complex one. The current study with its findings may be inspiring for future researchers and paves the way for future studies that could look further into the effective relationship between the functional and interactional approaches to language use and CS.

The study has left a room, from several aspects, that can be as suggestions for future researchers to take advantage of (i) future studies may adopt or adapt another theory or classification that, consequently, may lead to diverse findings which, in turn, yield different results that contribute to the research area of CS in particular and field of bilingualism in general, (ii) a significant change in the number of participants may also participate in producing different findings and as a result different result, (iii) Selecting only females or mixed genders sampling may give different findings, (iv) the change in the research design, from qualitative

to mixed or qualitative, may also be reflected the findings and results of the study, and (v) the setting change may play an influential role in producing different findings.

All of the above-mentioned suggestions can be promising opportunities for future researchers to take advantage of. Several questions may remain open in the bilinguals' CS area research and there is a real need for more disciplined and accurate research which deeply dive into this subject. The study thus recommends further research on the use of more than one language within a single conversation in the workplace in general and public sector facilities around the world in particular.

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CURRICULUM VITAE

Sattar J. Hashim CHNANI had a B.A. in English language and literature from Al-Mustansiriyah University. His M.A. in English language applied linguistics from Karabuk University. He participated in several conferences on English language and literature. He published a book review in the Eurasian Journal of English Language and Literature.

INTERVIEW QUESTIONS

1- What is your L2?

2- How did you learn your L2?

3- How long do you use your L2 every day?

4- Why do you code switch?

5- Do you consider CS use as a result of L2 mastery or the lack of equivalent in L1?

GENERAL NOTES FOR THE TRANSCRIPTION

-The brackets in the statistics refer to how many the switch was repeated.

- Irrelevant utterances by bystanders are left out in order to clarify the utterances relevant to

the dialogue.

- The underlined words are where the CS takes place.

CONVERSATIONS TRANSCRIPTION

INTERVIEW TRANSCRIPTION

TRANSLATED AND ANALYZED

Excerpt No. 1

2-ماذا حدث ؟ <u>هنكت</u> أم ماذا؟

-What happened? Did it <u>hang on</u> or what?

-*Referential Function.*

Excerpt No. 2

1- فأخبروني بأني يجب أن أعمل <u>فرمته</u>.

-They told me that I have to <u>format</u> it.

-*Referential Function.*

Excerpt No. 3

1-لا<u>تبوت</u>، النظام لا<u>ييوت</u> لدي.

-It does not <u>boot</u>[1]; the system does not do <u>booting</u>.

-*Referential Function.*

Excerpt No. 4

2-أخشى أن يكون لديك برنامج <u>مهنك</u>..(معلق).

-I am afraid that the program is <u>hanged on</u>... (hanged on)

-*Referential Function.*

Excerpt No. 5

1- أعتقد بأنها مضروبة <u>virus</u> مما يجعلها تدخل في <u>loop</u>[2] مما لايمكنها من أن تكون حاسبة <u>free work</u> للعمل بها.

-I think that it got a virus that caused it to loop in a way that does not enable it to be a free work computer for work.

-*Referential Function.*

Excerpt No. 6

2-وماذا إذا أضفت delete + shift + control؟ ماذا سيظهر لك من خيار؟

-What will appear if you click control + shift + delete?

-*Referential Function.*

Notes:

1-Boot, boot up: Usually used to mean 'start up the computer'. Literally, the process of loading up the operating system and getting the computer ready for use.

Dictionary of Computer and Internet Terms (Vol. 1) John C. Rigdon, Editor,2016, p.168.

2-loop (n): A series of instructions that is repeated a fixed number of times or until a terminating condition is reached.

Dictionary of Computer and Internet Terms (Vol. 1) John C. Rigdon, Editor,2016, pp.725-726.

Excerpt No. 7

1-تظهر لي عدة أبليكيشنات تعمل ولكن لايمكنني أن أطفأهم...

-Several active applications will appear, but I can't switch off them…

-*Referential Function.*

Excerpt No. 8

2-ماذا يظهر لك عندما تضغط menu + start ، ماذا يظهر بانك تُشَغِلْ ؟ ماهي البرامج التي تظهر لك في ال start up
؟

-What will appear if you click start + menu, what appears? What are the programs that appear

in start up list?

-*Referential Function.*

Excerpt No. 9

ـ هل هنالك شيء أسمه restore او ماشابه ذلك في ال WINDOWS؟

- Are there something called restore or something like this in WINDOWS?

-*Referential Function.*

Excerpt No. 10

2-أها، restore، يمكن من خلاله إرجاع آخر update عملته لل windows...

-Oh, by clicking restore you can restore the recent update done for WINDOWS…

-*Referential Function.*

Excerpt No. 11

2-هو سيسألك "متى حدث last update ؟" لأنه سيظهر لك أكثر من option، أكثر من خيار...

-It will ask you "when did the recent update happen?"

-*Referential Function.*

Excerpt No. 12

؟auto ‫ماذا عن ال‬ update ‫الذي يعمله، هل هو سينجزه‬-1

-What about the update done? Is it auto?

-*Referential Function.*

Excerpt No. 13

‫العائد له.‬ schedule ‫، هو من سيختار. ولكن أنت من نظمت ال‬ auto ‫نعم،‬-2

-Yes, auto, it will choose, but you who arranged its schedule.

-*Referential Function.*

Excerpt No. 14

"... ‫أم‬ "everyday" ‫العائد له وكيف أنت كنت قد نظمته"‬ every week "‫أحياناً، سترى ال‬ schedule-2

-Sometimes, you will see its schedule and how you arranged "every week" or "everyday" ...

-*Referential Function.*

Excerpt No. 15

.Every month-2

-Every month.

-*Referential Function.*

Excerpt No. 16

1-لل <u>WINDOWS</u> كله، هو وتطبيقاته وما على ذلك، وترجعها، نفس فكرة ال <u>system restore</u> .

-For the whole <u>WINDOWS</u>, WINDOWS and its applications and so on, it will be restored, the

same idea of <u>system restore</u>.

-*Referential Function.*

Excerpt No. 17

1-<u>Image</u>، <u>system image</u> أو هكذا شيء؟

-<u>Image</u>, <u>system image</u> or something like this?

-*Referential Function.*

Excerpt No. 18

2-كلا، كلا، ليس <u>system image</u>، نسيته، أ أ أ أ...، ماهو أسم الرنامج؟ <u>image</u>...

-No, no, not <u>system image</u>, I forgot it, ah ah ah ah, what is the name of the program? <u>Image</u>…

-*Referential Function.*

Excerpt No. 19

1- أعتقد بانه يستنسخ ال <u>registry</u> بأكمله.

-I think that it will copy the whole <u>registry</u>.

-*Referential Function.*

Excerpt No. 20

2-مثل ال <u>back up</u> ولكنه لايسجل.

-Like the <u>back up</u>, but it does not save.

-Referential Function.

Excerpt No. 21

1-إنه يأخذ صورة لل WINDOWS...

-It takes a copy for WINDOWS…

-Referential Function.

Excerpt No. 22

2- ISO ، ISO ، software أسمه ISO .

-ISO, ISO, software called ISO.

-Phatic Function.

Excerpt No. 23

1- ISO !

-ISO!

-Phatic Function.

Excerpt No. 24

1-انا أرى بأنه من الأفضل تنصيب Deep Freeze، برنامج Deep Freeze أفضل.

-I think that it is better to install Deep Freeze, Deep Freeze program is better.

-Referential Function.

-Phatic Function.

Excerpt No. 25

<div dir="rtl">

2-ماذا تفعل إذا <u>forget the password؟</u>

</div>

-What do you do if you <u>forgot the password</u>?

-*Referential Function.*

Excerpt No. 26

<div dir="rtl">

1-نعم، يجب أن ... إذا كان لديك عمل ما تفتح ال <u>Deep Freeez</u>.

</div>

-Yes, you should… if you have a certain job to open the <u>Deep Freeze.</u>

-*Referential Function.*

Excerpt No. 27

<div dir="rtl">

2- كل شيء لديك على ال <u>desktop</u> على سطح المكتب.

</div>

-You keep everything on the <u>desktop</u> on the desktop.

-*Metalinguistic Function.*

Excerpt No. 28

<div dir="rtl">

1-ليس فقط هذه، فأذا كان لديك برامج تريد أن تنصبه بأستخدام ال <u>flash</u>، وكان ال<u>flash</u> مضروب...

</div>

-Not only this, if you have a program and want to install it by using a <u>flash</u> and the <u>flash</u> was

damaged…

-*Referential Function.*

Excerpt No. 29

1-ففتحت ال <u>Deep Freez</u> ونزل عندك ال <u>virus</u> بالحاسبة وقفلته، نفس الشيء ستصبح الأمور...حتى لو كنت مسيطر وحافظ نفسك.

-You opened <u>Deep Freez</u> and a <u>virus</u> was downloaded inside your computer and locked it, the matters will be the same …even if you were controlling and protecting yourself.

-*Referential Function.*

Excerpt No. 30

1-جيد، هل هنالك شيء يمكنني من الفرمته من خلال ال <u>flash</u>، هل هنالك هكذا شيء، هل سمعت عنه؟

-Good, is there something enable me to format through a <u>flash</u>, is there something like this, have you heard about it?

-*Referential Function.*

Excerpt No. 31

2-نعم، هذا لازم <u>تبوت</u>.

-Yes, you should do <u>booting</u>.

-*Referential Function.*

Excerpt No. 32

1-اني عندي ال<u>CD room</u> عاطل، لايعمل.

-I have an out of order <u>CD room</u>, it does not work.

-*Referential Function.*

Excerpt No. 33

2-ال CD Drive قصدك، أليس كذلك؟

-You mean the CD drive, isn't it?

-*Referential Function.*

Excerpt No. 34

1-قالو لي بالأمكان أستبداله ب USB أو من خلال ال flash.

-They told me that I can replace it with USB or through a flash.

-*Referential Function.*

Excerpt No. 35

2-يجب أن تُغير ال boot الخاص بك في ال WINDOWS، تدخل لل DOS وتغيره.

-You should change your WINDOWS boot; you can change by logging in DOS.

-*Referential Function.*

Excerpt No. 36

1-قصدك هذا ال BIOS الواجهة الأضافية.

-You mean the BIOS[1]…the additional facet.

 -*Referential Function.*

Excerpt No. 37

2-نعم، تغيرها من هنالك لكي عندما تعمل restart، يأخذ ...

-Yes, you can change it from there in order to when you do a restart, it takes…

-Referential Function.

---

[1]BIOS (n): The set of essential software routines that test computer hardware at startup, start the operating system, and support the transfer of information between hardware devices.

Dictionary of Computer and Internet Terms (Vol. 1) John C. Rigdon, Editor,2016, p.153.

Excerpt No. 38

<div dir="rtl">

2-كلا، كلا، يأخذ من ال <u>flash</u> العائد لك.

</div>

-No, No, it takes from your <u>flash</u>.

-Referential Function.

Excerpt No. 39

<div dir="rtl">

1-يعني يطلع خيار أسمه <u>USB</u>؟

</div>

-Do you mean <u>USB</u> option will appear?

-Referential Function.

Excerpt No. 40

2-نعم، نعم، ال <u>select</u>، انت عندما <u>تبّوت</u>، سيسألك: ...<u>which one</u>؟

-Yes, yes, the <u>select</u> option, when you <u>boot</u>, it will ask you: <u>which on</u>?

-Referential Function.

Excerpt No. 41

1-نعم، هذا ال <u>flash</u> من أين أجلبه؟ هو جاهز وأشتريه!

-Yes, where may I get this <u>flash</u>? Is it ready to buy it!

-Referential Function.

Excerpt No. 42

2-موجود، وبأمكانك أنت أن تصنعه، <u>create</u> ومن ثم...

-It is available, you can do it by clicking <u>create</u> and then…

-Metalinguistic Function.

Excerpt No. 43

2-نعم، هو مجرد <u>software</u> ، هو فقط سيعمل <u>resize</u> لل...

-Yes, it is a mere software, he will only do <u>resizing</u> for…

-Referential Function.

Excerpt No. 44

1-ولكني لاأزال أعمل حسب السياق القديم القائم على جلب <u>CD</u>...

-But I still work according to the previous procedure which depends on <u>CD</u>…

-Referential Function.

Excerpt No. 45

1-وأبوّت وأفرمت.

-Boot and format.

-*Referential Function.*

Excerpt No. 46

1-هل تعلم بأن المسألة ستكون ممتازة من خلال ال flash.

-Do you know that the matter will be excellent if it was performed by a flash.

-*Referential Function.*

Excerpt No. 47

1-سابقاً، كنا نفرمت من خلال سيديّات إثنين، CD لل DOS و CD لل WINDOWS.

-Previously, we were formatting by using two CDs, CD for DOS and the other CD for WINDOWS.

-*Referential Function.*

Excerpt No. 48

2-حتى الخاص بال... driver back solution.

-Even that related to driver back solution…

-*Referential Function.*

Excerpt No. 49

2-صار بالأمكان تختار من خلال select ومن ثم ...auto

-Now, you can choose by clicking select then auto…

-*Referential Function.*

Excerpt No. 50

1-جيد، من أين أحضروا هذا الكم من التعاريف، هل هو من يرى ال <u>requirements</u> الموجودة في الحاسبة ويقدم لنا، أم ماذا؟

-Good, where do they get this big quantity of identifications, is it take into account the <u>requirements</u> in the computer and provide us or what?

-Referential Function.

Excerpt No. 51

1-لديه <u>database</u> قوية.

-It has strong <u>database</u>.

-Referential Function.

Excerpt No. 52

2-مضغوطة في ال <u>CD</u>. وعندما تدخله سيقرأها وستشاهد أنت ال <u>device</u> العائد لك وماهي صفاته، ماهي ال <u>cash memory</u>، كارت الشاشة...

-Compressed in the <u>CD</u> and when you enter it, it will read it and you will notice your <u>device</u> and its features, <u>cash memory</u>, screen card…

-Referential Function.

Excerpt No. 53

2-<u>RAM</u>.

- <u>RAM</u>.

-Referential Function.

Excerpt No. 54

2-ال <u>version</u> الخاص بالحاسبة.

-The <u>version</u> of the computer.

-*Referential Function.*

Excerpt No. 55

1-يعطيك ماتحتاجه من <u>driver</u>.

-It will give you the <u>driver</u> you need.

-*Referential Function.*

Excerpt No. 56

2-كما تعرف بأن التعاريف الخاصة تختلف بين الحجمين 32 و 64 من حيث ال <u>WIFI</u> وال <u>CD</u> Drive.

-As you know that the particular definitions are either 32 or 64 according to the <u>WIFI</u> and <u>CD</u> <u>Drive</u>.

-*Referential Function.*

Excerpt No. 57

-أشترينا حاسبة <u>DELL</u> وقال لايوجد معها قرص.

-We bought <u>DELL</u> computer and the seller said that there is no a CD with it.

-*Referential Function.*

Excerpt No. 58

1-بحيث أظهر لي <u>لستة</u> من <u>الدرايفرات</u> التي أريدها.

-In a way that he showed me a <u>list</u> of <u>drivers</u> that I want.

-Referential Function.

Excerpt No. 59

2- هنالك برنامج نزلته أسمه <u>C-Cleaner</u> ينظف لك <u>الريجسترات</u> وال <u>cash</u> وغيرها...

-There is a program called <u>C-Cleaner</u>, it cleans the <u>registries</u>, <u>cash</u> and others…

-Referential Function.

Excerpt No. 60

2-هذا برنامج جميل جداً، يُسَرع من الحاسبة، ينظف لك <u>الريجسترات</u>.

-This program is very good; it accelerates the computer and cleans the <u>registries</u>.

-Referential Function.

Excerpt No. 61

2-<u>للدرايفرات</u> ولترتيب الملفات و...

-For <u>drivers</u>, file arrangement and …

-Referential Function.

Excerpt No. 62

1-قصدك <u>Defragment</u> هذا؟

-You mean this is Defragment?

-Referential Function.

Excerpt No. 63

2-نعم، هذا <u>Defragment</u>، ال <u>C-Cleaner</u> مثله.

-Yes, this is <u>Defragment</u> and the same is <u>C-Cleaner</u>.

-Referential Function.

Excerpt No.64

2-فقط <u>select</u>.

-Just <u>select</u>.

-Referential Function.

Excerpt No. 65

1-بالمناسبة، قبل عدة أيام أشتريت <u>router</u> وأشتريت <u>NANO</u> ولم أعرف كيف أربطهم رغم كوني خريج حاسبات وضيعت فيهم يوم كامل.

-By the way, several days ago I bought a <u>router</u> and <u>NANO</u> and did not know how to connect them in spite of being computer specialist, I wasted a day to install them.

-Referential Function.

Excerpt No. 66

1-نسيت كيف أربطهم، وفي النهاية تذكرت بان علي الأطلاع على الربط من خلال ال <u>website</u>.

-I forgot how to connect them and finally I remembered that I have to be acquainted with the connection by visiting its <u>website</u>.

-Referential Function.

Excerpt No. 67

2- من خلال ال <u>website</u> ، <u>Public IP</u> ، 192.68.1.0، 1.1 ، أم 1.0 ؟

-Through the website, Public <u>IP</u>, 192.68.1.0, 1.1, 1.0?

-*Referential Function.*

Excerpt No. 68

2- <u>Public IP</u> وال <u>user</u> وال <u>password</u>، <u>admin</u>، <u>admin</u>.

-<u>Public</u> <u>IP</u> and the <u>user</u> and the <u>password</u>, <u>admin</u>, <u>admin</u>.

-*Referential Function.*

Excerpt No. 69

1-لل<u>router</u> أم لل<u>NANO</u>؟

-For the <u>router</u> or the <u>NANO</u>?

-*Referential Function.*

Excerpt No. 70

2-بالنسبة لل<u>NANO</u>، يجب أن تعرف <u>IOS</u> العائد له، يجب أن تعرفه، تدخل على <u>IOS</u> العائد له في ال <u>website</u>.

-For the <u>NANO</u>, you have to know its <u>IOS</u> to write it in the website.

-*Referential Function.*

Excerpt No. 71

2- فيه <u>Public IP</u>، تدخل على <u>Public IP</u>...

-It has a <u>Public</u> <u>IP</u>, you can sign in through it.

-*Referential Function.*

Excerpt No. 72

1-أنا وصلت لغاية المحولة، المحولة فيها منفذين BOE وفيها LAN.

-I saw the inverter, it has two exits: one for BOE and the other for LAN.

-*Referential Function.*

Excerpt No. 73

1- ال cableالنازل من BOE أدخله بالكارت LAN العائد للlaptop.

-You may put the BOE cable in the laptop LAN card.

-*Referential Function.*

Excerpt No. 74

1-ولغاية هذا العمل أنا لم أنسق عملي مع ISP (Internet Service Provider) وهو الشخص الذي منه net لغاية ذلك اليوم.

-Till now, I did not coordinate my work with ISP (Internet Service Provider) who provides net at that time.

--*Referential Function.*

Excerpt No. 75

2-أنت يجب أن تعرف ال direction الخاص بال path...

-You have to know the direction of the bath…

-*Referential Function.*

Excerpt No. 76

2-نعم، ال <u>signal</u> الخاصة به قوية.

-Yes, its <u>signal</u> is very strong.

-Referential Function.

Excerpt No. 77

1-أنا أخذت الموضوع <u>by default</u> لكونه قريب عني ولاتوجد بنايات بيني وبينه.

-I dealt with the matter <u>by default</u> because it was close to me and there were no buildings between us.

-Referential Function.

Excerpt No. 78

1- فقلت، أكيد ال <u>signal</u> ستظهر لدي بمستوى جيد.

-I said "I am sure the <u>signal</u> will be strongly appeared.

-Referential Function.

Excerpt No. 79

2-أخشى أن يكون لديه <u>load</u>؟

-I fear that there will be a <u>load</u>.

-Referential Function.

Excerpt No. 80

1-كلا، كلا، لديه <u>سكنرات</u> كثيرة.

-No, no, he has many <u>scanners</u>.

-*Referential Function.*

Excerpt No. 81

2-هل عرفت ال<u>scanner</u> وحجمه...

-Do you know the <u>scanner</u> and its size?

-*Referential Function.*

Excerpt No. 82

1-هو لديه تقريباً ستة <u>سكنرات</u>.

-He has six <u>scanners</u> approximately.

-*Referential Function.*

Excerpt No. 83

2-يجب أن يدخل ال <u>NANO</u> عليها.

-The <u>NANO</u> should log in it.

-*Referential Function.*

Excerpt No. 84

1-كلا، الطريقة، البداية، بداية الإجراء، بداية ال <u>processing</u>.

-No, the way, the beginning, the beginning of the procedure, the beginning of the <u>processing</u>.

-*Metalinguistic Function.*

Excerpt No. 85

2-مجرد <u>connection</u> ليس فيه أي <u>processing</u>...

-It is a mere <u>connection</u>. It does not have any <u>processing</u>.

-*Referential Function.*

Excerpt No. 86

1- تربطه بال <u>LAN</u> وليس من خلال ال <u>WIFI</u>.

-It connects it with the <u>LAN</u>, not through the <u>WIFI</u>.

-*Referential Function.*

Excerpt No. 87

2-طبعاً، من خلال ال <u>LAN</u> ولايوجد <u>wifi</u>. أت تقصد بأنها ستتم من خلال <u>wire</u> وليس <u>wireless</u>.

-Of course, through the <u>LAN</u> and there is no <u>WIFI</u>. You mean that it be performed <u>through</u>

wire not <u>wireless</u>.

-*Referential Function.*

Excerpt No. 88

1- نعم، هي هذه المسألة، بعد ذلك تكتب ال<u>IP</u> .

-Yes, this is the matter, then write the <u>IP</u>.

-*Referential Function.*

Excerpt No. 89

2- تعمل ...كلام غير مفهوم...لل <u>IP</u>.

-It works…incomprehensible talk… for the <u>IP</u>.

-*Referential Function.*

Excerpt No. 90

1- ال <u>IP</u> العائد لل<u>NANO</u> نفسه.

-The IP of the NANO itself.

-Referential Function.

Excerpt No. 91

2- أين تكتبه بال <u>website</u>؟.

-Where do you write it? in website?

-Referential Function.

Excerpt No. 92

1- نعم في ال <u>website</u>، بعد ان تدخل، ال <u>website</u> سيعثر لك على الشخص القريب منك، أو أي شبكات موجودة حسب التوجيه الذي وجهته.

-Yes, in the <u>website</u>. After you log into the <u>website</u>, it will show you the nearest person or any active networks according to the direction you direct it.

-Referential Function.

Excerpt No. 93

2- سيكشف لك عن ذوي ال <u>signal</u> القوية.

-It will show you those who have strong <u>signal</u>.

-Referential Function.

Excerpt No. 94

1- <u>كنكت</u> معه.

-I <u>connected</u> with him.

-Referential Function.

Excerpt No. 95

2- نعم، <u>كنكت</u> معه، وبعد ذلك؟ سيطلب منك <u>username</u> و <u>password</u>.

-Yes, I <u>connected</u> with him and then? It requires <u>username</u> and <u>password</u>.

-*Referential Function.*

Excerpt No. 96

1-نعم، كيف نربط ال <u>router</u>؟

-Yes, how do we connect the <u>router</u>?

-*Referential Function.*

Excerpt No. 97

2- ال<u>router</u> يُربط كالتالي: انت لديك <u>cable</u> نازل <u>wire</u>؟

-The <u>router</u> is connected as follows: You have a <u>cable</u> with a <u>wire</u>?

-*Referential Function.*

Excerpt No. 98

1- <u>Cable</u> نازل من أين؟

-Where does the <u>cable</u> come from?

-*Referential Function.*

Excerpt No. 99

1- من ال <u>LAN</u>؟

-From the <u>LAN</u>?

-*Referential Function.*

Excerpt No. 100

‏2- ال LAN الخاص بالمحولة الخاصة بالNANO...

-The LAN of the NANO converter.

-*Referential Function.*

Excerpt No. 101

‏1- الrouter، المكان الأزرق.

-The router, the blue outlet.

-*Referential Function.*

Excerpt No. 102

‏1-ربطته و أدخلت ال IP.

-I connected it and wrote the IP.

-*Referential Function.*

Excerpt No. 103

‏2- أدخل ال IP 1،1،168،192 ...

-I wrote the IP 192, 168, 1, 1…

-*Referential Function.*

Excerpt No. 104

‏2- عندما تكتب ال IP تكتبه في ال browser.

-When you write the IP, you write it in the browser.

-*Referential Function.*

Excerpt No. 105

<div dir="rtl">

1-نعم، أعرف. أكتبه في ال <u>browser</u>.

</div>

-Yes, I know. I write it in the <u>browser</u>.

-Referential Function.

Excerpt No. 106

<div dir="rtl">

2-نعم، ليس في مكان ال <u>username</u> و <u>password</u>.

</div>

-Yes, not in the blank of the <u>username</u> and <u>password</u>.

-Referential Function.

Excerpt No. 107

<div dir="rtl">

2- هذا أبو ...ال<u>admin</u>... ال <u>provider</u> الذي يجهزك <u>net</u>.

</div>

-This is the owner of… the <u>admin</u>… the <u>provider</u> who provide you with <u>net</u>.

-Referential Function.

-Metalinguistic Function.

-Referential Function.

Excerpt No. 108

<div dir="rtl">

2-لديهم برامج أسمها <u>winbox</u>.

</div>

-They have programs called <u>winbox</u>.

-Referential Function.

Excerpt No. 109

<div dir="rtl">

2- هذا ال <u>winbox</u> بأمكانه أن يدخل من خلاله إلى أي حاسبة، لديه <u>Public IP</u>...

</div>

-This winbox can log into any computer, it has <u>public IP</u>…

-Referential Function.

Excerpt No. 110

كلها. network ال مال supervisor admin هذا هو ال -1

-This is the <u>admin</u>.. the <u>supervisor</u> of the whole <u>network</u>.

-Referential Function.

Excerpt No. 111

يُغطي. وماذا به الخاص domain سيجد لك ال ،...أها -2

-Oh…, It will find you its <u>domain</u> and what it covers.

-Referential Function.

Excerpt No. 112

...signal أقوى العائد له كله، وسيجد لك -2

-In all its domain, and it will find you the strongest <u>signal</u>…

-Referential Function.

Excerpt No. 113

يُقابلك. sector أقوى -1

-The strongest <u>sector</u> near you.

-Referential Function.

Excerpt No. 114

2- أي <u>sector</u> ؟ أي <u>channel</u>؟

-Which <u>sector</u>? Which <u>channel</u>?

-Referential Function.

Excerpt No. 115

1-جيد، ال <u>router</u>...

-Good, the <u>router</u>…

-Referential Function.

Excerpt No. 116

1- هل بأمكاني أن أسيته <u>WIFI</u> ؟

-Could I set it with <u>WIFI</u>?

-Referential Function.

Excerpt No. 117

1-بدون <u>cable</u>.

-Without a <u>cable</u>.

-Referential Function.

Excerpt No. 118

1-لازم أضع له <u>cable</u>.

-I should connect it with a <u>cable</u>.

-Referential Function.

Excerpt No. 119

1- ومن ثم، أضع ال <u>cable</u> الخارج من (كلمة غير مفهومة) العائد لل<u>NANO</u>.

-After that, I put the <u>cable</u> which comes out of (incomprehensible word) of the <u>NANO</u>.

-Referential Function.

Excerpt No. 120

2-تربطه بال <u>PC</u> ، تربطه بال <u>PC</u>.

-Connect it with the <u>PC</u>, connect it with the <u>PC</u>.

-Referential Function.

Excerpt No. 121

1-ال <u>router</u>، ال <u>router</u>!

-The <u>router</u>, the <u>router</u>!

-Referential Function.

Excerpt No. 122

2-نعم، تربطه بال <u>PC</u>.

-Yes, connect it with the <u>PC</u>.

-Referential Function.

Excerpt No. 123

<div dir="rtl">

1-لماذا نربطه بال <u>PC</u>؟

</div>

-Why do we connect it with the <u>PC</u>?

-Referential Function.

Excerpt No. 124

<div dir="rtl">

2-وإلا كيف ستعمل <u>synchronization</u> مع ال<u>NANO</u> العائد لك؟

</div>

-Otherwise, how will you do <u>synchronization</u> with your <u>NANO</u>?

-Referential Function.

Excerpt No. 125

<div dir="rtl">

1-لكي أعمل <u>synchronization</u>، جلبت ال <u>cable</u> الخارج من ال <u>POE</u> ووضعته في ال <u>router</u>، ال <u>cable</u> . ودخلت

على ال <u>router</u> من خلال ال <u>wifi</u> من ال <u>laptop</u>.

</div>

-I put the <u>cable</u> of the <u>POE</u> and put it in the <u>router</u> to do <u>synchronization</u>, the <u>cable</u>. I logged in

the <u>router</u> through <u>WIFI</u> of the <u>laptop</u>.

-Referential Function.

Excerpt No. 126

<div dir="rtl">

2- <u>Unknown</u>، <u>Unknown</u>، غير معرف.

</div>

-<u>Unknown</u>, <u>unknown</u>, undefined.

-Phatic Function.

Excerpt No. 127

<div dir="rtl">

1- ماذا تقصد بغير معرف، ستجد ال <u>router</u>، ال <u>signal</u> الخاصة به موجودة.

</div>

-What do you mean by undefined? You will find the <u>signal</u> of the <u>router</u> there.

-Referential Function.

Excerpt No. 128

1- ال signal، وماذا بعدها؟

-The signal, what's after?

-Referential Function.

Excerpt No. 129

1- يبث، بأمكانك أن تكنك معه.

-It transmits, you can connect with it.

-Referential Function.

Excerpt No. 130

1- فقط network، يعني بس إتصال بدون خدمة.

-Only network, you mean connection without service.

-Referential Function.

Excerpt No. 131

2- فقط intranet، intranet وليس internet.

-Just intranet, intranet not internet.

-Referential Function.

-Metalinguistic Function.

-Referential Function.

Excerpt No. 132

1- نعم، اعرف. آنذاك يكون بأمكانك الدخول لتغيير ال setting العائد لك.

-Yes, I know. At that time, you will be able to log in to change the setting.

-*Referential Function.*

Excerpt No. 133

2- لاتُغير، يجب أن تعمل <u>forgation</u> له حتى يتناسق مع ال <u>NANO</u> العائد لك.

-Don't change, you should do <u>forgation</u> to be fit with your <u>NANO</u>.

-*Referential Function.*

Excerpt No. 134

2- أسمعني، ماذا تعطيه أنت؟ هو سيعطيك أسمه مثلاً <u>TNP</u> أو ماشابه...

-Listen to me, what do you give it? He will give you his name, for example <u>TNP</u> or something like that.

-*Referential Function.*

Excerpt No. 135

1- نعم، <u>TP Link</u> وماشابه.

-Yes, <u>TP Link</u> and the like.

-*Referential Function.*

Excerpt No. 136

2- <u>TP Link</u> وجماعتها. أنت يجب أن تُغير أسمه إلى (علي) أو (أمير) أو أي أسم آخر. كيف ستغير ال <u>set up</u> الخاص به؟

-TP Link and its group. You should change its name into (Ali) or (Ameer) or any another name.

How will you change its <u>set</u> <u>up</u>?

-Referential Function.

Excerpt No. 137

2-كلا، لم أفعل. أنت عملت هكذا. وعندما عملت هكذا أنت يجب أن تعطيه <u>username</u> و <u>password</u> .

-No, I didn't do. You did that. You should give it username and password because you did it.

-Referential Function.

Excerpt No. 138

2-ال <u>username</u> وال <u>password</u> الخاص بال <u>router</u>.

-The <u>username</u> and the <u>password</u> of the <u>router</u>.

-Referential Function.

Excerpt No. 139

1- لحظة من فضلك، عندما تجلب <u>router</u> جديد وتربطه بالكهرباء بدون أي فيشة.

-Just a moment please, when you bring a new <u>router</u> and connect it with electricity without any

plug.

-Referential Function.

Excerpt No. 140

1-سيُظهر لك <u>signal</u>.

-A signal will appear.

-*Referential Function.*

Excerpt No. 141

2-كلا، لاتوجد signal.

-No, there is no signal.

-*Referential Function.*

Excerpt No. 142

1-سيُظهر لك signal.

-It will show you a signal.

-*Referential Function.*

Excerpt No. 143

2- لايوجد signal.

-There is no a signal.

-*Referential Function.*

Excerpt No. 144

1- سيُظهر لك signal ويبث. سيُظهر لك signal ولكن بدون خدمة .

-It will show you a signal and transmit. It will show you a signal, but without a service.

-*Referential Function.*

Excerpt No. 145

1- يعني أنت <u>ok</u> <u>كنكت</u> على ال <u>router</u> الذي هو حالياً لديه <u>username</u> و <u>password</u> أما <u>admin</u> و <u>admin</u> أو بدون

أي شيء. مباشرةً <u>تكنك</u> بدون <u>username</u> و <u>password</u>، <u>تكنك</u> بدون <u>username</u>، <u>password</u>.

-Ok, you connected with the <u>router</u> which has a <u>username</u> and a <u>password</u>, either <u>admin</u> and

<u>admin</u> or without anything. You directly connect without a <u>username</u> and a <u>password</u>, you can

connect without a <u>username, password</u>.

-*Referential Function.*

Excerpt No. 146

1- جيد، وعندما <u>كنكت</u> أنت، بدون خدمة، ال <u>router</u> يحتاج واحد يربطه بمصدر أنترنت.

-Good, when you <u>connected</u>, without a service, the <u>router</u> requires someone who should

connect it with a source of internet.

-*Referential Function.*

Excerpt No. 147

1-فأنت ماذا تفعل؟ تربط <u>cable</u> من المحولة الخاصة بال<u>NANO</u> وتربطه بال<u>router</u>. هل تحتاج <u>cable</u> من ال <u>router</u>

إلى ال <u>laptop</u>؟

-What will you do? You have to connect a <u>cable</u> from the converter of the <u>NANO</u> and connect

it with the <u>router</u>. Will you need a <u>cable</u> from the router to the <u>laptop</u>?

-*Referential Function.*

Excerpt No. 148

1-لماذا هو <u>WIFI</u>؟

-Why is <u>WIFI</u>?

-*Referential Function.*

Excerpt No. 149

1-لكي تعمل <u>set</u> <u>up</u> له.

-In order to do a <u>set</u> <u>up</u> for it.

-*Referential Function.*

Excerpt No. 150

1-حتى تعطيه... . الآن أنت لديك ال <u>default</u> الخاص بالراوتر هو ... 192.168 .

-In order to provide it… . Now, you have the <u>default</u> of the router is 192.168…

-*Referential Function.*

Excerpt No. 151

1-كيف دخلت له ؟ دخلت له عن طريق ال <u>browser</u> ؟

-How did you log in it? You logged in it through the browser?

-*Referential Function.*

Excerpt No. 152

1-عندما دخلت عن طريق ال <u>browser</u> . ماهي الصفحة التي ظهرت لك؟ ظهرت لك الصفحة الخاصة بال <u>log in</u> الخاصة بال <u>TP</u> <u>Link</u>.

-When I logged in through the browser. What is the page appeared to you? The page of the log

in related to TP Link appeared to you.

-*Referential Function.*

Excerpt No. 153

1-<u>TP</u> <u>Link</u> ماهو ال <u>username</u> و <u>password</u> الخاص به؟

-What is the <u>username</u> and the <u>password</u> of the <u>TP Link</u>?

-Referential Function.

Excerpt No. 154

<div dir="rtl">

2- <u>Default</u>...
</div>

-<u>Default</u>…

-Metalinguistic Function.

Excerpt No. 155

<div dir="rtl">

2- <u>Default</u>، <u>admin</u>، <u>admin</u>. <u>Admin</u>، 123 أو <u>admin</u> ، <u>admin</u> تكتبه وبعدها تدخل عليه وتعمل ال <u>set up</u> وتلاحظ ال <u>security</u> وتلاحظ ال <u>Public IP</u> الخاص به.
</div>

-Default, <u>admin</u>, <u>admin</u>. Admin, 123 or <u>admin</u>, <u>admin</u> you write it and then log in it and make the <u>set up</u> and notice the security and its <u>public</u> <u>IP</u>.

-Referential Function.

Excerpt No. 156

<div dir="rtl">

1- يعني لأستطيع أن أدخل من خلال ال <u>WIFI</u>؟
</div>

-You mean I can't log in through <u>WIFI</u>?

-Referential Function.

Excerpt No. 157

<div dir="rtl">

1-كيف إذاً يمكن أن ننصبه من خلال ال <u>WIFI</u>؟
</div>

-Then, how can we install it with <u>WIFI</u>?

-Referential Function.

Excerpt No. 158

١- أحضرت ال<u>router</u> وربطته على ال<u>laptop</u> بال <u>cable</u>.

-I brough the <u>router</u> and connected it with the <u>laptop</u> through a <u>cable</u>.

-Referential Function.

Excerpt No. 159

١- ال <u>router</u> فيه نوعين من المنافذ، الأزرق والأصفر.

-The <u>router</u> has two types of outlets: the blue and the yellow ones.

-Referential Function.

Excerpt No. 160

١- الأزرق تربطه مع <u>ISP</u> الذي هو مع ال<u>NANO</u> .

-Connect the blue with <u>ISP</u> which is with the <u>NANO</u>.

-Referential Function.

Excerpt No. 161

١- نعم، بقية ال<u>بورتات</u>، الصفراء...

-Yes, the rest of <u>ports</u>, the yellow ones…

-Referential Function.

Excerpt No. 162

١- منها يتم التوزيع، تريد <u>لانات</u>، تريد...

-By which it was distributed whether <u>LANS</u> or…

-Referential Function.

Excerpt No. 163

<div dir="rtl">

2- تربط حاسبات، <u>كاميرا</u>، <u>devices</u>.

</div>

-It connects computers, <u>cameras</u> and <u>devices</u>.

-Referential Function.

Excerpt No. 164

<div dir="rtl">

1- فكما قلت لك ال <u>cable</u> الذي جاءني من <u>POE</u> الخاص بال<u>router</u>، ربطته مباشرةً بالمنفذ الزرق الخاص بال<u>router</u>...

</div>

-As I told you, the <u>cable</u> which came out of <u>POE</u> of the <u>router</u>. I connected it directly to the blue outlet of the <u>router</u>…

-Referential Function.

Excerpt No. 165

<div dir="rtl">

1- جيد، وبعدها كنكت بال <u>laptop</u> على ال <u>router</u>...

</div>

-Good, after that I connected to the <u>laptop</u> through the <u>router</u>…

-Referential Function.

Excerpt No. 166

<div dir="rtl">

2- <u>wireless</u>؟

</div>

-<u>Wireless</u>?

-Referential Function.

Excerpt No. 167

<div dir="rtl">

1- <u>wireless</u> وبعدها نظمت ال <u>setting</u> العائد لي.

</div>

145

-Wireless and after that arranged the <u>setting</u>.

-*Referential Function.*

Excerpt No. 168

1-السؤال الآن: أنا أريد أن أربط <u>router</u> ثاني على هذا ال <u>router</u>.

-Now, the question is: I want to connect another <u>router</u> to this one.

-*Referential Function.*

Excerpt No. 169

1- بما معناه ال <u>router</u> الأول أوصلني إلى هذه الغرفة.

-I mean the first <u>router</u> delivered me to the room.

-*Referential Function.*

Excerpt No. 170

1- أريد أن أجلب <u>router</u> ثاني يأخذ...

-I want to bring a second <u>router</u> to take…

-*Referential Function.*

Excerpt No. 171

2- ليس <u>router</u>، ليس <u>router</u> ... هنالك جهاز ...

-Not a <u>router</u>, not a <u>router</u>… there is a device…

-*Referential Function.*

Excerpt No. 172

1- أنا كنت رابط <u>راوترين</u>، أخي كان رابطه، ولكن الان هو ليس لديه الوقت الكافي لذلك.

-I was connecting <u>two routers</u>. My brother connected them, but he does not have an enough time now.

-Referential Function.

Excerpt No. 173

2- هنالك جهاز صغير يُربط على الكهرباء على ال <u>power</u> ... . يأخذ <u>extension</u> لل <u>router</u> الثاني الخاص بك. على ال <u>router</u> الأول، تعطي نفس ال <u>username</u> و <u>password</u> ولكن ال <u>extension</u> إمتداد له.

-There is a small device that should be connected with electricity in <u>power</u>… . It takes an <u>extension</u> to your second <u>router</u>. In the first <u>router</u>, you put the same <u>username</u> and <u>password</u>, but the <u>extension</u> is an extension to it.

-Referential Function.

Excerpt No. 174

1- قصدي عندما أصنع <u>setting</u> لل <u>router</u> الجديد...

-I mean when I make a <u>setting</u> for the new <u>router</u>…

-Referential Function.

Excerpt No. 175

2- نعم، تعتبره <u>extension</u> له، إمتداد...

-Yes, you can consider it an <u>extension</u> to it, an extension…

-Referential Function.

Excerpt No. 176

1- نعم، <u>extension</u>!

-Yes, <u>extension</u>!

-*Referential Function.*

Excerpt No. 177

2- نعم، إما <u>router</u> أو جهاز.

-Yes, either a <u>router</u> or a device.

-*Referential Function.*

Excerpt No. 178

1- كلا، <u>router</u>، <u>router</u>. أنا كنت رابط <u>router</u>.

-No, <u>router</u>, <u>router</u>. I was connecting <u>router</u>.

-*Referential Function.*

Statistics:

1-Tag Switching: 17(1), 22(2).

2-Intra-sentential switching:1, 2, 3(2), 4, 5(3), 6(3), 7, 8(3), 9(2), 10(3), 11(2), 12(2), 13(2), 14(3),16(3), 17(2), 18(3), 19, 20, 21, 22(1), 24(4), 25(3), 26(2), 27, 28(2), 29(3), 30(2), 31, 32(2), 33(2), 34(2), 35(3), 36, 37, 38, 39, 40(4), 41, 42, 43(3), 44, 45(2), 46, 47(6), 48(3), 49(2), 50, 51, 52(4), 53, 54, 55, 56(3), 57, 58(2), 59(4), 60, 61, 62, 63(3), 64, 65(2), 66, 67(3),68(5),69(2),70(4),71(4),72(2)73(4), 74(5), 75(2), 76, 77(2), 78, 79, 80, 81, 82, 83, 84, 85(2), 86(2), 87(4), 88, 89, 90(2), 91, 92(2), 93, 94, 95(3), 96, 97(3), 98, 99, 100(2), 101(2), 102, 103, 104(2), 105, 106(2), 107(3), 108, 109(3), 110(3), 111, 112, 113, 114(2), 115, 116, 117, 118, 119(2), 120(2), 121(2), 122, 123, 124(2), 125(8), 126, 127(2), 128, 129, 130, 131(3), 132, 133(2), 134, 135(2), 136(3), 137(2), 138(3), 139, 140, 141, 142, 143, 144(2), 145(13), 146(2), 147(5), 148, 149, 150, 151, 152(4), 153(4), 155(10), 156, 157, 158(3), 159, 160(2), 161, 162, 163(2), 164(4), 165(2), 167(2), 168(2), 169, 170, 171(2), 172, 173(7), 174(2), 175, 176, 177, 178(3).

3-Inter- sentential switching:15, 23, 154, 166.

1-Tag Switching:3

2-Intra-sentential Switching:453

3-Inter-sentential Switching:4

Excerpt No. 1

1- في ال2008 بدأنا ب <u>workflow</u> يعني ال... غير مرتبطة بكل الأقسام.

1-In 2008, we started working on a workflow system, i.e. all the….. are not interconnected.

-*Referential Function.*

Excerpt No. 2

2- إذا تتذكر كان لدى (أم سرى) حاسبة واحدة ومتصلة ب <u>network</u>.

2- If you remember there was a computer at Sura's mother connected with a <u>network</u>.

-*Referential Function.*

Excerpt No. 3

3- ولكن الدنمارك فيها مؤسسة اسمها <u>Samper Tool</u> .

3- But there is an institution called <u>Samper Tool</u> in Denmark.

-*Referential Function.*

Excerpt No. 4

4- وهي مؤسسة تدعم البحث العلمي وطورت مفهوم ال<u>Electronic Library</u> ...

4-It is an institution that supports scientific research and developed the concept of <u>Electronic

Library</u>.

-*Referential Function.*

Excerpt No. 5

5- ومشتغلين بهذا ال <u>deep</u> وأرشفة الي <u>journal</u> بها.

5-Who worked in this <u>deep</u> and <u>journal</u> archiving.

-Referential Function.

Excerpt No. 6

6- النظام يتميز بكونه ليس موقع website عادي و <u>public</u> <u>IP</u> ومجرد أن تُدخِلُ <u>IASJ</u> .

6- The system is not a normal <u>website</u>; <u>public IP</u> and you only have to access <u>IASJ</u>.

-Referential Function.

Excerpt No. 7

7-الموقع فيه ثلاثة <u>سيرفرات</u>، طبعاً جميعها منصبة <u>dedicate</u>.

7- The website consists of three <u>servers</u>, all of them installed as <u>dedicate</u>.

-Referential Function.

Excerpt No. 8

8- أقصد بال <u>dedicate</u> هو أنها ليست <u>share</u>.

8- I mean by "<u>dedicate</u>" that it is not "<u>share</u>".

-Referential Function.

Excerpt No. 9

9- تنزل مقطع فديو، هاي 15 ميكا <u>per</u> <u>second</u> فقط لك ستنزل.

9- When you download a video clip, this 15 mega <u>per</u> <u>second</u> will be dedicated just for you.

-Referential Function.

Excerpt No. 10

10- هذا ال 30 موظف، ال 15 <u>per second</u> ستتوزع على من؟

10-How can this 15 <u>per second</u> be distributed among 30 employees?

-Referential Function.

Excerpt No. 11

11- <u>Share</u> .

-Referential Function.

Excerpt No. 12

12-<u>Share</u>.

-Referential Function.

Excerpt No. 13

13- ماهو معنى ال <u>Dedicate</u> ؟

13-What is the meaning of <u>dedicate</u>?

-Referential Function.

Excerpt No. 14

14-معناه بأنني سأخصص <u>dedicate</u> <u>internet</u> فقط إلى (نزار).

14-It means that there will be <u>internet dedicated</u> for (Nazar).

-Referential Function.

Excerpt No. 15

15- يعني أضع <u>switch board</u> .

15-It means that I will put a <u>switch board</u>.

Excerpt No. 16

16- وأضع <u>dish</u> وأحضر <u>cable</u> وأربطه ب <u>adaptor</u> ، لازم يتحول...

- I put <u>dish</u> and prepare a <u>cable</u> and connect it with an <u>adaptor</u>, it should be moved…

-Referential Function.

Excerpt No. 17

17- نعم، <u>adaptor</u>.

17- Yes, <u>adaptor</u>.

-Referential Function.

Excerpt No. 18

18- يتحول من ال <u>cable</u> هذا الموجود ب <u>adaptor</u> أربطه بالحاسبة الخاصة بك وبالأنترنت.

18- It should be changed form this <u>cable</u> into <u>adaptor</u> connected with your computer and <u>internet</u>.

-Referential Function.

Excerpt No. 19

19- وسأعطيك 15 ميكا <u>per second</u>.

19- I will give you 15 mega <u>per second</u>.

-Referential Function.

Excerpt No. 20

20- هذه 15 ميكا <u>per second</u> فقط أنت تشترك بها.

20- This 15 mega <u>per</u> <u>second</u> only for you.

-Referential Function.

Excerpt No. 21

21- السيرفرات كذلك، ماهو ال <u>server</u>؟

21- Servers also, what is the <u>server</u>?

-Referential Function.

Excerpt No. 22

22- ماهو عمل ال <u>server</u>؟

22- What is the function of the <u>server</u>?

-Referential Function.

Excerpt No. 23

23-ال <u>server</u>، هو عبارة عن مكان نضع فيه شغلنا.

23-The <u>server</u> is a place to store data in.

-Referential Function.

Excerpt No. 24

24- يعني <u>storage by</u>... يعني خزن بمكان واحد.

24- It means <u>storage by</u>…it means to be stored in one place.

-Referential Function.

Excerpt No. 25

25-نعم، <u>source</u>.

25- Yes, <u>source</u>.

-Referential Function.

Excerpt No. 26

26-ال <u>resource</u> العائد لنا نضعه في هذا المستوعب ونربطه بشبكة.

26-Our <u>resource</u> will be put in this storage and connect it with a network.

-Referential Function.

Excerpt No. 27

27-جيد، هذا من اجل أن يكون <u>send</u> و <u>receive</u> الخاص به... لكي تكون سريعة يجب أن توفر له <u>net</u>.

27-Good, this to make the process of <u>sending</u> and <u>receiving</u> faster…you should provide it with <u>internet</u>.

-Referential Function.

Excerpt No. 28

28-شبكة الـnet dedicate التي هي 20 ميكا per second، بحيث مهما كان عدد الناس الداخلين للموقع الخاص بك فأنت ب safety وراح توصل لهم بيانات.

28-The dedicated network which is 20 mega per second, in a way that whatever the number of people logged in your site, you will be on the safe side and deliver the data for them.

-Referential Function.

Excerpt No. 29

29- بالحقيقة، هو مجموعة من الكودات التي أخذناها من المجلات.

29- Actually, it is a group of codes that we took from the journals.

-Referential Function.

Excerpt No. 30

30-الـjournals التي تصدر من مؤسساتنا المحكمة بالجامعات.

30- The journals issued by our peer-reviewed institutions in universities.

-Referential Function.

Excerpt No. 31

31-service خدمة نقدمها، نقدمها لمن؟ نقدمها لل researcher للناس الباحثين.

31- A service that we serve, serve it to whom? We provide it to researchers.

-Metalinguistic Function.

-Metalinguistic Function.

Excerpt No. 32

32- ونحن نؤمن بفكرة open access وبأن العلم للجميع.

32- We believe in the idea of <u>open access</u> and that science if for all.

-Referential Function.

Excerpt No. 33

33- لكونها أمينة وموثوقة ويجب أن تعمل <u>السيرفرات</u> في درجة برودة معينة.

33- <u>Servers</u> are safe and secure and they should work in a certain cold temperature.

-Referential Function.

Excerpt No. 34

34- لدينا ثلاثة <u>سيرفرات</u>.

34- We have three <u>servers</u>.

-Referential Function.

Excerpt No. 35

35- <u>Server</u> للموقع و <u>server</u> مصادقة و <u>resources</u> و <u>server</u> حماية.

35- A <u>server</u> for the website, a <u>server</u> for ………. and <u>resources</u> and a <u>server</u> as a spare part.

-Referential Function.

Excerpt No. 36

36- أين موقع ال <u>system</u>؟

36- Where is the location of the <u>system</u>?

-Referential Function.

Excerpt No. 37

37-ال <u>system</u> مالته ال <u>location</u> مالته بالضبط هو بال <u>server</u> رقم 2 الذي هو <u>resources</u> .

37-The <u>location</u> of the <u>system</u> is in <u>server</u> number 2 which is specified for <u>resources</u>.

-Referential Function.

Excerpt No. 38

38- هو طبعاً، الموقع صمم كتصميم و <u>metadata</u> الخاصة بتفاصيله، وفق <u>standard</u> عالمي.

38- Of course, the web site is designed as a design and its <u>metadata</u> related to its details according to an international <u>standard</u>.

-Referential Function.

Excerpt No. 39

39-<u>Metadata</u> ، ماذا نقصد بها؟

39-What do you mean by <u>Metadata</u>?

-Referential Function.

Excerpt No. 40

40-أخذت عنوانه، أخذت ال <u>abstract</u> الخاص به.

40- I took its title, I took its <u>abstract</u>.

-Referential Function.

Excerpt No. 41

41- أخذت ال <u>keywords</u> ال...

41- I took the <u>keywords</u> the …

-Referential Function.

Excerpt No. 42

42- انا أخذت هذه المعلومات من ال <u>metadata</u> وأستفدت منها.

42- I took this information from the <u>metadata</u> and made use of it.

-Referential Function.

Excerpt No. 43

43- الأفتراضية، <u>Iraq Virtual Science Library</u> ، فكرة المكتبة الأفتراضية من أين جاءت؟

43- The virtual, <u>Iraqi Virtual Science Library</u>, where did its idea spring from?

-Referential Function.

Excerpt No. 44

44- توفرها، طبعاً ال <u>resource</u> ستكون أوراق مؤتمرات، <u>articles</u> ، <u>books</u> .

44- It provides, the <u>resource</u> will be conference papers, <u>articles</u> and <u>books</u>.

-Referential Function.

Excerpt No. 45

45-هنالك شيء يسمى <u>published just in time</u>.

45- There is something called <u>published just in time</u>.

-Referential Function.

Excerpt No. 46

46- مثلاً، اضرب لك مثل، <u>EBSCO</u> الذي هو أكبر مجمع قواعد بيانات.

46- For example, I give <u>EBSCO</u> as an example which is the biggest data base.

-Referential Function.

Excerpt No. 47

47- هو أمريكي عنده خدمة <u>published</u> <u>just</u> <u>in</u> <u>time</u>.

47- It is an American data base has <u>published</u> <u>just</u> <u>in</u> <u>time</u> service.

-Referential Function.

Excerpt No. 48

48- يصل لها ال <u>users</u> من <u>institution</u> الموجودة بالعراق المشتركة بها وتعمل بها <u>research</u>.

48- The <u>users</u> of Iraqi subscribed <u>institution</u> log in it and <u>research</u>.

-Referential Function.

Excerpt No. 49

49- المكتبة الفتراضية واحدة منها هي ال <u>Discovery System</u> الخاص بها والذي هو كيف انا أبحث.

49- The virtual library provides <u>Discovery System</u> service that learns users how to search.

-Referential Function.

Excerpt No. 50

50- أنظمة عالمية تستخدم <u>Harvest Tool</u> يعني الحصاد...

50- International systems employs Harvest Tool which means harvesting…

-Referential Function.

Excerpt No. 51

51- واحدة منها الذي هو Sund وكلفته تقريباً مليون دولار سنويا، توفره دار النشر Science Direct.

51- One of them is Sund which costs one million dollars annually which the publication house

Science Direct provides.

-*Referential Function.*

Excerpt No. 52

52- Science Direct هولندية.

52- Science Direct is a Dutch ...

-*Referential Function.*

Excerpt No. 53

53- النظام الثاني الذي يُستخدم عالمياً هو نظام EBSCO ، مجمع قواعد البيانات الذي أشتركنا في ...

53- The second system internationally used is EBSCO, it is a database compound in which we

subscribed.

-*Referential Function.*

Excerpt No. 54

54- النظام المستخدم في Iraqi Virtual Science Library هو Lib Hub .

54- The system used in Iraqi Virtual Science Library is Lib Hub.

-*Referential Function.*

Excerpt No. 55

55 - <u>Lib Hub</u> هي المؤسسة التي صنفته وتديره بشكل احترافي جداً وفيه ميزات يوفرها.

55- <u>Lib Hub</u> is the institution that classified and ran it very professionally and provided features.

-Referential Function.

Excerpt No. 56

56- يجلب ال <u>metadata</u> الخاصة بدور النشر كلها دون الحاجة لأدخال <u>manual</u> .

56- It takes the <u>metadata</u> related to all publication houses without a <u>manual</u> input.

-Referential Function.

Excerpt No. 57

57- فهو يعمل <u>harvesting</u> حصاد الكتروني.

57-It uses <u>harvesting</u>, electronic harvesting.

-Referential Function.

Excerpt No. 58

58- يعني كيف... <u>Google</u> ينشر حالياً من دور النشر ال <u>Open Access</u> وغيرها يومياً، يمكن بالساعة أو باللحظة.

58- I mean how…<u>Google</u> currently publishes from the <u>Open Access</u> publication houses and others every day; it may do this every hour or every second.

-Referential Function.

Excerpt No. 59

59- هنالك <u>سيرفرات</u> خاصة به تعمل عملية حصاد ألكتروني لهذه دور النشر التي تعطي <u>Open Access</u> .

59- There are special <u>servers</u> provide electronic harvesting for these publishing houses that provides <u>Open Access</u> service.

-Referential Function.

Excerpt No. 60

60- ال<u>metadata</u>.

60- The <u>metadata</u>.

-Referential Function.

Excerpt No. 61

61- ال<u>metadata</u>.

61- The <u>metadata</u>.

-Referential Function.

Excerpt No. 62

62- اني أحتاج ال <u>metadata</u> لدور النشر لأن اني عندما أدخل إلى <u>Discovery System</u> وكتب مثلاً <u>Data Mining</u> .

62- I need the publication houses <u>metadata</u> because when I log into the <u>Discovery System</u> and wrote <u>Data Mining</u> for example.

-Referential Function.

Excerpt No. 63

63- شيء أبحث عنه في أختصاص ب <u>Data Mining</u> ولم اكتب دار نشر ولا عنوان ولم أكتب أسم باحث...

63- Something I look for related to <u>Data Mining</u> and did not write a title or researcher's name.

-*Referential Function.*

Excerpt No. 64

64- سيبحث لي ال <u>Discovery System</u> في كل دور النشر التي أشتركت فيها المكتبة الأفتراضية.

64- It will search for <u>Discovery System</u> in all the publication houses that the virtual library subscribed in.

-*Referential Function.*

Excerpt No. 65

65- سيحضر لي الملخصات الخاصة بأي محتوى يحتوي على كلمتي <u>Data Mining</u> موجودة والتي هي العنوان وال <u>Abstract</u> الخاص بها.

65- It will bring the abstracts related to any content that contains the words of <u>Data Mining</u> available whether in its title or <u>abstract</u>.

-*Referential Function.*

Excerpt No. 66

66- لو انا غير مشترك بال <u>Discovery System</u> الخاص بالمكتبة الأفتراضية لكان عندي مثلاً 20 دار نشر يجب ان أدخل إلى دور النشر واحدة واحدة، وسأبحث...

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66- If I were not subscribed in <u>Discovery System</u> service available in the virtual library, I would be obliged to log into 20 publication houses one by one to search…

-*Referential Function.*

Excerpt No. 67

67- بينما ال <u>Discovery System</u>، كلا، بحث عن الكل وأحضرها لي في مكان واحد.

67- While the <u>Discovery System,</u> on the contrary, searched in all of them and brought it in one place.

-*Referential Function.*

Statistics:

1-Tag Switching:17, 25.

2-Intra-sententialswitching:1, 2, 3, 4, 5, 6(3), 7(2), 8(2), 9, 10, 13, 14(2), 15(2), 16(3), 18(5), 19, 20, 21, 22, 23, 24, 26, 27(3), 28(4), 29, 30, 31(2), 32(2), 33, 34, 35(4), 36, 37(4), 38(2), 39, 40, 41, 42 ,43(4), 44(3), 45(4), 46, 47(4), 48(3), 49(2), 50(2), 51(3), 52(2), 53, 54(5), 55, 56(2), 57, 58(3), 59(3), 60, 61, 62(5), 63(2), 64(2), 65(3), 66(2), 67(2).

3-Inter-sentential switching:11, 12,

1-Tag Switching:2

2-Intra-sententialswitching:136

3-Inter- sentential switching:2

Participant No. (1)

1-What is your L2?

- English

2-How did you learn your L2?

-Throughout study years.

3-How long do you use your L2 every day?

- 2-3 hours a day.

4-Why do you code switch?

- To occupy the lack of the vocabulary in my mother language.

5-Do you consider CS use as a result of L2 mastery or the lack of equivalent in L1?

- The lack of equivalent in L1.