THE ROLE OF FIRST LANGUAGE (KURDISH) DEVELOPMENT IN ACQUISITION OF A SECOND (TURKISH) AND A THIRD LANGUAGE (ENGLISH)

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# THE ROLE OF FIRST LANGUAGE (KURDISH) DEVELOPMENT IN ACQUISITION OF A SECOND (TURKISH) AND A THIRD LANGUAGE (ENGLISH) 

Thesis submitted to the<br>Institute for Graduate Studies in the Social Sciences in partial fulfillment of the requirements for the degree of

Master of Arts
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## Thesis Abstract

> Mehmet Şerif Derince, "The Role of First Language (Kurdish) Development in Acquisition of a Second Language (Turkish) and a Third Language (English)" This study investigates the interaction of three languages (i.e., Kurdish, Turkish and English) with one another in terms of language proficiency, reading comprehension and morphological awareness of 8th grade Kurdish students. The aim is to identify the students' characteristics in terms of their performances in each area in L1 (first language) Kurdish, L2 (second language) Turkish and L3 (third language) English and how they are related to each other.

Data were gathered through multiple instruments and analyzed via SPSS. In line with the theoretical framework of the Linguistic Interdependence Hypothesis and previous research, the correlation and regression analyses reveal that there is a strong positive relationship and interdependence among the language proficiencies in the three languages. Likewise reading comprehension as well as morphological awareness across languages seem to be interdependent. It is also observed that proficiency in a language contributes significantly to reading comprehension and morphological awareness in that language. The results also show that a high competence in L1, L2 and L3 proficiency is associated with higher performance in realms of reading comprehension and morphological awareness in all the languages involved.

## Tez Özeti

Mehmet Şerif Derince, "İkinci Dil (Türkçe) ve Üçüncü Dil (İngilizce) Ediniminde Birinci Dilin (Kürtçe) Gelişiminin Önemi"

Bu çalı̧̧ma 8. sınıfta okuyan Kürt öğrenciler arasında üç dilin (Kürtçe, Türkçe ve İngilizce) dil yeterliliği, okuduğunu anlama ve biçimbirimsel farkındalık alanlarında birbirleriyle etkileşimini incelemektedir. Çalışmanın amacı, birinci dilde eğitimin yokluğunda birinci dil (D1) Kürtçe, ikinci dil (D2) Türkçe ve üçüncü dil (D3) İngilizce'de öğrencilerin bu sözü geçen alanlardaki performanslarını belirleyip birbirleriyle nasıl etkileştiklerini belirlemektir.

Veriler birçok testler kullanılarak toplanıp SPSS programında analiz edilmiştir. Diller Arası Karşılıklı Bağlılık Hipotezi kuramsal çerçevesi ve önceki çalışmaların sonuçlarına paralel olarak, korelasyon ve regresyon analizlerinin sonuçları her üç dildeki dil yeterlilikleri arasında güçlü pozitif bir ilişki ve dillerarası karşııklı bağlılık olduğunu göstermektedir. Benzer şekilde, okuduğunu anlama ve biçimbirimsel farkındalık becerilerinin, diller arasında karşılıklı olarak birbirlerine bağlı olduğu görülmektedir. Ayrıca bir dildeki dil yeterliliğinin, o dildeki okuduğunu anlama ve biçimbirimsel farkındalık becerilerine olumlu katkıda bulunduğunu göstermektedir. Sonuçlar her üç dilde edinilecek bir yüksek dil yeterliliğinin okuduğunu anlama ve biçimbirimsel farkındalık alanlarında sözü geçen dillerde daha yüksek performansla ilişkili olduğunu da göstermektedir.

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To my mother's tongue...

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## ABBREVIATIONS

$1 \mathrm{PL}=$ First person plural marker
$2 \mathrm{SG}=$ Second person singular marker
ACC = Accusative case marker
$\mathrm{ADP}=$ Adposition
BICS $=$ Basic Interpersonal Communicative Skills
CALP = Cognitive-Academic Language Proficiency
COP = Copula
DAT= Dative marker
DER $=$ Derivative
EZ = Ezafe marker
IMPF = Imperfective
L1 = First language, mother tongue
L2 $=$ Second language
L3 $=$ Third language
OBL = Oblique case marker
PL = Plural marker
PREP $=$ Preposition
PRES $=$ Present Tense
PST $=$ Simple past tense
SG = Singular marker
SOV = Subject Object Verb

## CHAPTER 1

## BACKGROUND

## Introduction


#### Abstract

A tribal child's first steps into school are steps into an alien world - a world she barely understands because, somewhere as she walks into her first classroom, the ties are snapped. Her resources, languages, means of communication, knowledge of her world and her culture are set aside in a system that proudly calls itself human resources development. On the very first day in school, she loses her resources and is left with nothing to be 'developed'. She has been pushed in, to be submersed (and pushed out later), in a system that the language of which she barely understands. It would take her three to five years just to comprehend the teacher and by then it would be too late. This tribal child and all others in her community are not alone. All over the world, the Indigenous peoples, the 'natives', the 'first nation' peoples, the aboriginals, the tribes and all the dominated linguistic and ethnic minorities suffer a similar fate...(Mohanty, 2009:3-4).


This quotation written particularly for tribal children in Orissa in India also describes the situation of most of the Kurdish-speaking students in the monolingual Turkish school system. Kurdish children come to the world with L1 (first language) Kurdish as their mother tongue and they usually encounter with L2 (second language)

Turkish in later ages. Most of them are exposed to a systematic amount of Turkish firstly in formal school settings. Every year senior students registered to elementary schools and high schools are required to take country-wide examinations in order to study in a higher level school in Turkey. The Turkish Ministry of Education and the Student Selection and Placement Center announce the results and statistics regarding these exams every year. According to the annual statistics, the same cities densely populated by Kurdish-speaking students are repeatedly listed as underachieving cities in all sections of the exams. Other than such factors as poverty, lack of teachers, low
socio-economic status, and cultural differences, many Kurdish parents frequently attribute this failure of their children to speaking Kurdish, or having Kurdish as the mother tongue. As a result, they try to speak less or even, in some cases, no Kurdish with their children with the hope that they could be exposed to Turkish more and thus be more successful at school. Similarly, many teachers working in the Kurdishspeaking regions generally attribute the underachievement among these students to low competence in Turkish and think that speaking Kurdish is an obstacle in front of learning and utilizing Turkish. Therefore, they frequently recommend them and their families not to speak Kurdish with each other and force themselves to submerse only in Turkish (Coşkun, Derince \& Uçarlar, forthcoming in 2010). However, the reasons behind this underachievement and its ever-lasting results have been scarcely investigated in relation to linguistic factors through sound qualitative or quantitative measures. Although there is a respectable body of literature, which provides a valuable insight into how the Kurdish language and the act of speaking Kurdish have been treated by state policies in formal and informal domains, there is not much research about the academic underachievement and high drop-outs among the Kurdish-speaking students. Moreover, the studies that have investigated the underachievement among Kurdish-speaking children are not based on classroom data. One of these studies conducted by Şahin and Gülmez (2000) investigate the 'social sources of failure in education' in dominantly Kurdish-speaking regions. The researchers attribute the academic failure of Kurdish students to inequality of educational opportunity rooted in geographical, economic, social (cultural, linguistic), and political factors. They note that some of the reasons behind this are illiteracy, low income, low school attendance, non-engagement of families in school experience of their children, shortage of teachers and textbooks, and finally having a
home language different from the language of instruction at schools. Şahin and Gülmez note that competency in the school language, which is Turkish, is a prerequisite of academic achievement. However, they do not clearly identify the role of language proficiency in relation to school performance and how Turkish and Kurdish language proficiency relate to each other. Also, there is a stealthy tendency in their report to blame speaking Kurdish for academic failure rather than the way it is treated in the educational and societal interactions. Alternatively, in a sociopolitical attempt to locate the role of language in academic performance of lowachieving students, Ayan Ceyhan and Koçbaş (2009) review the relevant literature and suggest that one of the main reasons of underachievement among the Kurdishspeaking students could be the fact that their home language (i.e., the L1 Kurdish) is disregarded in school settings.

Indeed research findings from different contexts around the world point to the significant role of language in school achievement or failure of students in cases where there is a mismatch between the language spoken at home and the medium of instruction (Cummins, 1979, 1991; Aksu-Koç, Taylan \& Bekman, 2002, Mohanty, 2009). For example, Aarts and Verhoeven (1999) state that children learning literacy skills in a L2 submersion context are faced with a dual task because they have to learn both an unfamiliar language (as well as unfamiliar cultural background) and literacy skills and academic school content through that language at the same time. For them, there is a reason to believe that the sudden switch in home-school language in submersion programs may lead to poor academic achievement and an inadequate command of both the L1 and L2. Regarding the focus of this thesis, it is also conceivable that learning an L3 (third language) might also be significantly affected by this situation.

The effects of a switch between home and school language have been treated differently in different time periods and in different language-country contexts. Historically speaking, there are two different trends prevailing. The earlier assumption was that two (or more) languages cause a state of confusion on the part of children and thus they should be encouraged to speak only one language and leave aside the other (Macnamara, 1966 cited in Cummins, 1979). This erroneous common sense was prevailing in the majority of the previous studies and it still finds supporters among practitioners, parents and policy makers in many countries across the world.

However, the groundbreaking research series conducted in Canadian bilingual schools have made a turning point in reconceptualization of bilingualism as improved cognitive, linguistic and social development (Lambert \& Tucker, 1972 cited in Cummins 1979). Since then, several studies focused on different aspects of bilingualism and consistently reported advantages of bilingualism. Plenty of these studies refer to the advantages of bilingualism in such areas as metalinguistic awareness (Cummins, 1978; Bialystok, 1991; Lasagabaster, 1998; Jessner, 1999; Jorda, 2005;), reading abilities (Coady, 1979; Cummins, 1979, 1991), the learning of an additional language (Thomas 1988; Bild \& Swain 1989; Klein 1995; Lasagabaster 1998, 2000, 2001; Cenoz 2000, 2003) and creativity (Lasagabaster, 2000). These studies have shown that having access to two languages can bring about positive effects in several aspects of cognitive development. Among other positive aspects are accelerated development of general intellectual skills, cognitive flexibility and divergent thinking, a greater degree of analytic orientation to language and an increased sensitivity to feedback cues in discourse (Cummins, 1978). However, it is important to note that such advantages are expected only when the L1 sufficiently
develops prior to extensive exposure to a L2 in school settings. Many of these studies were discussed under the Interdependence and Threshold Hypotheses formulated by Cummins (1979). The Interdependence hypothesis basically suggests that the development of proficiency in one language of a bilingual depends on the development of language proficiency in the other language and there is skills transfer ${ }^{1}$ between L1 and L2. Relevant to this is the threshold hypothesis, which suggests that a certain threshold level of L1 proficiency is necessary before L1 skills transfer to L2 or vice versa. Both of the hypotheses have been tested with several languages and in different linguistic contexts (Ricciardelli, 1992; Verhoeven, 1994; Lasagabaster, 1998, 2000). However, in all these studies the participants had a certain level of literacy in the languages involved.

Research on bilingualism has also revealed that reading ability might be an important predictor of school success because it enables students to understand and internalize content materials in various school texts (August \& Hakuta, 1997). There are two significant factors, among many others, that contribute to reading ability in the L 1 or in additional languages of bi/multilinguals. These factors are language proficiency and metalinguistic awareness (Diaz \& Hakuta, 1981; Galambos \& Hakuta, 1988; Perfetti \& Hart 2001). In child bilingualism research, phonological awareness and syntactic awareness have widely been investigated as two important components of metalinguistic awareness in an attempt to find out their contribution

[^0]to reading ability (Durgunoğlu, 2002). Nevertheless, such investigation is still under way for morphological awareness, as another important component of the metalinguistic awareness (Kuo \& Anderson, 2006).

Following this path of reasoning, the present study seeks to understand the relationship among language proficiency, reading comprehension and morphological awareness of 8th grade Kurdish-Turkish bilingual students learning English in primary state schools.

## Purpose of the Study

The aims of the present study are manifold. The primary aim of this study is to examine the effects of L1 Kurdish and L2 Turkish linguistic abilities (language proficiency, reading comprehension and morphological awareness) on the acquisition of English as a third language (L3). Cummins (1979, 1991, 2000a, 2009) claims that there is a significant positive relationship between L1 and L2 academic skills; they are interdependent and can be transferred across languages known to bilinguals. Cummins (2009) also suggests that among bi/multilingual students, transfer of language proficiency and skills occur best across languages when literacy in the languages involved is promoted in the school context. In this study, this hypothesis is tested with students who have not received literacy instruction in one of the languages (Kurdish) formally at school. In other words, the Kurdish students involved in this study have received instruction only Turkish, which is their second language, and there is not any form of education in Kurdish in the school context. Nevertheless, however minimal, some of these students might have been exposed to written forms of Kurdish via Kurdish TV channels, the internet, newspapers, books,
and so on. Within this context, this study aims to investigate whether a linguistic interdependence exists for language skills in three languages with different status and roles and if skills transfer is possible even if there is no formal and systematic literacy instruction in one of the languages. Also it is examined if higher language proficiency could predict higher performance in reading comprehension and morphological awareness among the participants.

To recapitulate in more analytical terms, the study explored; 1) the performance of the eighth-grade Kurdish-speaking students in language proficiency tests, reading comprehension tests and morphological awareness tests in the L1 Kurdish, L2 Turkish and L3 English; 2) the relationship among proficiency levels of the students in their three languages; 3) the relationship between reading comprehension and language proficiency to see if they are in strong interplay; 4) potential transfer of reading comprehension across languages and; 5) the relationship among language proficiency, morphological awareness and reading comprehension in the three languages.

## Significance of the Present Study

Although studies on L3 acquisition are flourishing around the world in the last decades, there is a scarcity of relevant research in the context of language minorities (Yang, 2005). Furthermore, there is hardly any work examining the performance of bi/multilingual students in strictly monolingual school environments or submersion contexts in which no literacy instruction is offered in children's home language.

Research concerning language acquisition of Kurdish students in Turkey is one such case. Much of the bi/multilingualism research conducted in Turkey does not
go beyond investigating acquisition of the L1 Turkish and L2 English or another prestigious western language. On the other hand, there is a relatively rich body of research, which documents, largely from either a political or sociolinguistic perspective, how the status of the Kurdish language has been perceived in Turkey and points to a necessity for protecting the mother tongue. ${ }^{2}$ For example, in a recent detailed study, Opengin (2009) investigates the patterns of language use among Kurdish-speaking community in Turkey. The researcher examines the intergenerational language shift pointing at a decline of language use of Kurdish among younger generations, but no specific discussion has been spared for the language abilities of Kurdish-speaking students in classroom context. Likewise, Haig (2003) gives a detailed account of the way Kurdish language has been treated in the discourse of the Turkish state policies and claims that Kurdish was made invisible through state policies in formal domains. Yet, no data regarding the language competence of Kurdish students and their language acquisition were investigated. In another study, Hassanpour, Skutnabb-Kangas and Chyet (1996) reflect on the situation of Kurdish students in monolingual Turkish schools in relation to interruptions of linguistic and cultural rights of the Kurdish community; however, no data regarding the students' language development were overtly discussed again. Data regarding Kurdish students in school settings in Turkey is usually only available from eye-witness accounts (Haig, 2003), and the most important reason for

[^1]that is because it is practically very difficult to collect data from these students due to discouraging bureaucracy ${ }^{3}$.

Thus, as discussed above, when we consider the present status of research on Kurdish-speaking students and their language learning practices in relation to their school experience, it becomes evident that we also need linguistically-oriented studies that closely examine the linguistic variables that play a determining role in academic experience of these students in school settings. The present study aims to serve to fill in this gap.

The study may also have direct pedagogical implications with respect to teaching English to Kurdish-Turkish bilingual students. No study reported to date has investigated the language abilities of these students in relation to their subsequent language learning experience. The present study is a preliminary step towards filling that gap, as well.

## Linguistic Context in Turkey: Languages in Contact

Turkish is the official language in Turkey. Except for elderly people from linguistic minority communities, most of the population of the country can speak or understand Turkish. As for the Kurdish language, it has no official status. Nevertheless, a stateowned TV channel started to broadcast in Kurdish in 2009. As there is not much research or investigation (except for Öpengin, 2009), no clear answer can be given as to what portion of the Kurdish people use Turkish in everyday interactions.

[^2]Furthermore, there is no data available on to what extent Kurdish people are bilingual in Kurdish and Turkish. Kurdish is learned as the L1 by virtually most of the Kurdish children living in particular regions in Turkey. The literacy rate in Kurdish is very low and only attained with a deliberate attempt. Moreover, reading materials such as daily newspapers and other publications in Kurdish are not readily and commonly available to Kurdish-speaking population in these regions.

Educational policies encourage development of the official (Turkish) language, and this is believed to result in subtractive bilingualism or monolingualism in the official language. Moreover, there are multiple varieties of the Kurdish language spoken in different regions which has brought about considerable linguistic variations among its speakers. Yet, there are attempts to use and spread a standardized variety of the language in Turkey, primarily undertaken by the Kurdish Institute of Istanbul. The research also shows that language attrition in Kurdish is faster in urban centers than in rural areas (Andrews, 1989; Çeliker, 2009; Öpengin, 2009).

English is the primary foreign language in the Turkish educational system. It is offered as a compulsory foreign language course in primary schools (starting from grade 4 to 8 ) and high schools (from grade 9 to grade 12). Moreover, many of the private primary schools and high schools use English as the medium of instruction. At the university level, two state-owned universities and most of the private universities use English as the medium of instruction. Although its popularity and necessity in many of the professions grow more and more because of political and socioeconomic factors (Doğançay-Aktuna, 1998; Kırkgöz, 2007), English is not used in everyday life in Turkey. Therefore it is usually limited to unauthentic classroom activities especially among the students of parents from low socioeconomic status in almost all parts of Turkey. Among the Kurdish-speaking community, English is even
less visible. Although Kurdish students are exposed to Kurdish and Turkish on a daily basis, in different contexts and for different purposes, exposure to English is limited to insufficient classroom interactions only. Therefore students cannot benefit from meaningful interactions outside this particular context.

At this point, it is important to note that some of the problems regarding English language teaching and learning are also prevailing among L1 Turkish students. Both L1 Turkish students and other students from diverse L1 backgrounds especially from low socioeconomic families in Turkey face similar problems regarding the lack of English language teachers, limited and unauthentic language teaching materials, inappropriate teaching methodologies, low expectations of teachers and so on. While it is equally important to investigate the language learning experience of these students and the problems faced by them, the scope of the present research is only confined to the students with L1 Kurdish and L2 Turkish background learning L3 English in the school context.

Kurdish ${ }^{4}$

Kurdish, a language of the Indo-European family, is an inflecting language and possesses a morphological ergativity ${ }^{5}$. It has a Latin-based alphabet with 23 consonants and 8 vowels. The sound-symbol correspondence between the phonemes and letters is predictable. It is read from left to right. The canonical word order is SOV but shows variations. The morphology is rich but not agglutinative. As shown in the following examples, verbal and nominal roots may be followed by inflectional and derivational morphemes.

| (1a) | Ez | du | nan-ên | peht-î | di-d-im |
| :---: | :---: | :--- | :---: | :--- | :--- |
|  | I two bread-PL-EZ bake-DER | PRES-give-1PL | Sema-yê. |  |  |
|  | "We gave two baked breads to Sema" |  |  |  |  |

(1b) Min du xwende-kar dît-in di dibistan-a nû-kir-î de. I two student-DER see-PST-2PL PREP school-EZ new-do-DER ADP "I saw two students in the renewed school."

The second sentence (1b) is a typical example of ergative construction in which the object (du xwendekar - two students) agrees with the verb (dîtin- to see).

As in most languages, complexity in Kurdish is evaluated in terms of lexical sophistication and morphosyntactic complexity. More advanced speakers typically use a wider range of vocabulary items when appropriate. In addition, more advanced speakers tend to produce longer utterances on average, evidencing more grammatical

[^3]morphemes and more complex syntactic structures (Haig, \& Matras, 2002; Tan, 2005; Thackston, 2006).

## Turkish

Turkish is a member of the Ural-Altaic language family and is considered to have a canonical SOV word order but it allows variations as a function of discoursepragmatic aspects. Just like Kurdish, a Latin-based alphabet is being used and it contains 8 vowels and 21 consonants. The sound-symbol correspondence holds true for Turkish as well. The morphology is a typical example of agglutinative and very rich. Word formation is very productive and mainly formed with suffixes. Both derivations and inflections are common and widely utilized in both written and spoken language. Nouns are marked for cases and follow vowel harmony rules. Predicates agree with subjects. Plurality is overtly marked. Nouns can be linked with inflections. Adjectives are not declined, but can be used as nouns as well. Verbs can show tense, aspect and modality (Kornfilt, 1997; Göksel \& Kerslake, 2005). The following examples illustrate how nominal and verbal inflections and derivations are realized in Turkish:
$\begin{array}{ccllll}\text { (2) Ben iki } & \text { piş -miş } & \text { ekmeğ-i } & \text { Sema'-ya } & \text { ver-iyor-um. } \\ \text { I two } & \text { bake-DER } & \text { bread-ACC } & \text { Sema-DAT } & \text { give-IMPF-1SG }\end{array}$ "I am giving two baked breads to Sema"

## English

English is a Germanic language from the Indo-European language family. It also uses a Latin-based alphabet consisting of 21 consonants and 5 vowels. Contrary to Kurdish and Turkish, there is not one-to-one sound-symbol correspondence in English. It is an example of strict SVO word order with a rich vocabulary mainly
taken from Old Latin and Ancient Greek as well as all other languages it has had a contact with. Compared to its rich derivational morphology, inflection is not rich (Baker, 1995; Haegeman \& Gueron, 1999). The following examples illustrate how nominal and verbal inflections and derivation are realized in English:

| (3) | I | am | giving two | bake-d | bread to | Sema. |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | I | be-COP | give-IMPF | two | bake-DER | bread | PREP |

There is a significant number of linguistic characteristics shared by Kurdish, Turkish and English that might facilitate learning to read in one of these languages subsequent to learning to read in another. As mentioned earlier, Turkish is the primary language of the formal instruction and literacy acquisition for the students and they are exposed to written and spoken English starting from grade 4. However, there is not any instruction or any sort of literacy education in Kurdish in school settings. Therefore, these students may easily speak L1 Kurdish but they might not able to read and write in it. Nevertheless, since the orthographical conventions concerning writing and reading in Turkish are quite similar in Kurdish, those who learn to read in L2 Turkish might also be able to read in L1 Kurdish. Moreover, some of the letters learned through English (i.e., x, w, and q) are also used in the Kurdish alphabet which might contribute to an awareness regarding the alphabetical differences across languages. Also, as previously noted, however limited, some of these students might be exposed to written Kurdish outside the school context. These reasons might help them to be able read and write in Kurdish.

## The Schooling of Kurdish Students in Turkey

Although Kurdish children generally start education at the age of seven like all the other children in Turkey, their school experience is quite dissimilar to their Turkishspeaking peers. They are not only required to learn literacy skills through L2 Turkish, but they have to face the daunting task of learning sophisticated content in the L2 as well. Although they are exposed to Turkish especially through TV, they mostly speak and hear Kurdish up until they start school. ${ }^{6}$ Therefore, at the beginning of schooling, they might have some problems with understanding the type of Turkish used in the school context, especially in the course books. Nevertheless, no language other than Turkish is allowed as the medium of instruction in those schools. In some cases, early grade-students might fail to communicate with their Turkish-speaking teachers properly and thus, might not completely understand the academic content taught to them. A lack of L2 competence at the time of schooling might lead to increase in the drop-out rates and a failure in centralized primary school and higher education examinations (e.g., SBS and ÖSS) administered country-wide every year. In line with such an argumentation, the results of these centralized exams have repeatedly shown that students from Kurdish-speaking regions are overrepresented among low achievers every year in all sections of the examinations, including the English tests. According to the results of the most recent country-wide high school entrance examination (i.e., the SBS examination held in 2009) taken right after the

[^4]compulsory primary education, the test results of the cities to which 8th grade Kurdish students attend primary schools were considerably lower. ${ }^{7}$

Also, some Kurdish-speaking parents refrain from speaking Kurdish with their children under the impression that their children have to speak only Turkish to be able to adapt to the school environment and to the larger community and be successful in examinations. In fact, this is much the same with the Turkish and Kurdish working-class families sending their children to monolingual schools in Europe, especially in Germany and the Netherlands (Droop \& Verhoeven, 2003; Yağmur, 2007). They are given the impression that if they continue to speak in their L1 with their children, then their children will not be able to learn the school language, and thus be unsuccessful in their schooling. Furthermore, it is claimed that many of these students face conflict and marginalization in their schooling experience (Fass, 2008). However, in some European countries, especially in Sweden, both Kurdish and Turkish children have the opportunity to receive mother tongue training classes besides education in the school language, which is taught to them as a L2. In some schools, these classes are offered as a part of the school curriculum; whereas in some others, the students take the mother tongue courses after the school, and in all cases participation to the mother tongue classes is voluntary (Westin, 2006). Yet still, it is claimed that receiving some voluntary mother tongue training classes do not suffice to eradicate discriminatory practices and problems ranging from marginalization to low quality education in the school and wider country contexts (Westin, 2006).

[^5]While the language competence of Kurdish-speaking students in L2 Turkish might be dubious, any documentation of their L1 Kurdish competence is not available, either. Since there is a cessation of or decrease in language contact with parents in Kurdish for some of the students, they might not be able to follow a regular language development process especially in the L1. Although some families continue to speak Kurdish extensively with their children, some of them just try to follow Turkish-only interaction with their children due to the above-mentioned reasons. However, recent attempts of non-governmental organizations and associations such as the Kurdish Institute of Istanbul, TZP-Kurdi (Kurdish Language and Education Movement) might have raised awareness among Kurdish families about using Kurdish with each other and with their children.

As for the acquisition of English, it is certain that the situation becomes more complex. Since the changes in the curricula of the Turkish National Education in 1997, these students are offered English courses starting from grade 4, like their peers with diverse linguistic and cultural backgrounds in Turkey. However, almost in all state primary schools, English is just a subject matter and students are exposed to English only in the classroom setting with few hours a week and with limited unauthentic materials and resources. Although most of the Kurdish children are exposed to both Kurdish and Turkish before they start to learn English, their learning of English is based on the assumption that their L1 is Turkish. That is, English language teaching practices are not associated to their bilingualism, and therefore they are not explicitly encouraged to make use of their previous language learning experiences.

In short, there is a linguistic mismatch between the home and school languages. L1 literacy and academic language skills are not promoted in the school
context and L2-medium instruction in the early years of schooling might fail to provide adequate comprehensible input due to limited competence in L2 Turkish. In this sense, in line with what Durgunoğlu (2002) suggests, some of the language problems faced by Kurdish-speaking students in literacy and language development in L2 Turkish might be due to the medium of instruction and low linguistic proficiency in L2. Similarly, Cummins (2000a) proposes that when bilingual students are not supported in literacy domains in both their L1 and L2, it becomes difficult for them to understand instruction (in L2) and benefit from their schooling. Therefore, it can be argued that a lack of literacy education in L1 Kurdish and low levels of L2 Turkish proficiency might actually hinder regular language development in L1 Kurdish and literacy and language development in L2 Turkish. With respect to L3 English education, because it is confined to a few hours a week and not tailored specifically to the linguistic characteristics of Kurdish-Turkish bilingual students, successful English learning is far from being a reality. ${ }^{8}$

## Operational Definitions of Key Terms

Before starting to discuss the theoretical framework, it is necessary to clarify one of the key terms frequently employed in bi/multilingualism research and education or language minority students: Language proficiency

To be able to understand language proficiency, it is essential to clarify the notion of 'linguistic competence', which was first introduced by Chomsky (1965) to refer to an individual's internal knowledge of language structure. It is contrasted with

[^6]'linguistic performance,' which is explained as the knowledge of language use that interacts with other cognitive and external factors. In the earlier postulation of the Interdependence Hypothesis, Cummins (1979) used the term 'linguistic competence' and 'language proficiency' interchangeably and there was not a special emphasis put on the term 'proficiency'. In later formulations and discussions of the issue, he claimed that the nature of proficiency in fact plays a central role in the discussions over the types of bilingualism. Cummins (1991, 2000a) states that the way we conceptualize 'language proficiency' and assess its development entails major consequences for virtually everyone in a society. For him, proficiency cannot be defined in an absolute sense but instead it is a meaningful construct only with reference to a particular context. Therefore, he makes a distinction between basic interpersonal communication skills (BICS) (i.e., day-to-day language needed in social interactions) and Cognitive Academic Language Proficiency (CALP) (i.e., formal academic language taught to and required from students in schools). BICS occurs in a meaningful social context and the language required in this type of interactions is not specialized. Nevertheless, interlocutors can stop to ask for clarification or repetition at any time when one of them does not understand the message and meaning is negotiated actively between/among interlocutors in a social environment. On the other hand, CALP can be defined as the language knowledge together with the associated knowledge of the world and metacognitive strategies necessary to function effectively in the discourse domain of the school (Cummins, 2000a). In other words, it is the type of academic language proficiency required for interaction in decontextualised settings, where language itself carries the burden of meaning and where abstract forms of language are used in analysis and problemsolving. CALP focuses primarily on the context of schooling, that is, the type of
proficiency that is necessary to function effectively in the school context and school related domains. However, it is not synonymous with literacy. It is manifested as much in oral interactions in academic contexts as in written interactions.

Cummins asserts that the distinction made between the two aspects is similar to some other formulations such as spontaneous and scientific concepts (Vygotsky, 1962), communicative versus analytic competence (Bruner, 1975), and communicative as opposed to autonomous proficiencies (Canale, 1983). With this distinction between BICS and CALP, Cummins proposes a framework in order to examine the cognitive demands and contextual supports that underlie the relationship between language proficiency and academic development. He says that the question of how we conceptualize language proficiency and how it is related to academic achievement is central to many volatile policy issues in language education.

Moreover, Cummins (2000a) firmly asserts that the distinction does not mean at all that the language proficiency of non-literate or non-schooled communities is in any way inadequate within the context of its development and use. He suggests that BICS is no less sophisticated cognitively and linguistically than the linguistic knowledge that is specific to the school context and literacy. Therefore, such language uses are not in any way inferior to more conventional literacy-related uses of language. Discussing about non-English speaking children beginning to education in monolingual or submersion-type American schools, Cummins claims that a minimal period of five years is typically required for young English language learners (aged between 6-10) to catch up monolingual American students academically despite the fact that they can communicate more easily in their everyday interaction. Ideally, bilinguals can develop strong skills both in BICS and CALP under normal circumstances when necessary support and pedagogical care is
provided, but this is not the case especially in most of the minority language situations. In such cases, generally home and community situations, in which a minority language is spoken do not normally provide sufficient contexts for the development of academic language proficiency. Furthermore, the school typically focuses (often intentionally) on fostering development of academic language skills only in the official language at the expense of the minority language. In addition, minority language children often do not possess sufficient language skills in their L2 to maximize their learning opportunities at school, and thus may not end up with strong academic language skills in the L2, either (Cummins, 2000a).

This is true for many of the Kurdish-speaking children as well. In other words, L1 Kurdish-speaking students need time and support to become proficient in academic areas taught in the L2 Turkish. Interviewing with the teachers teaching literacy skills in Turkish to Kurdish-speaking students, Coşkun, Derince and Uçarlar (forthcoming, 2010) report that, particularly in rural places and village schools, it takes at least four or five years to reach a L2 Turkish proficiency that is necessary to follow the academic subject matter in Turkish. Moreover, the authors report that many students in upper grades in primary education face subtractive bilingualism as they eventually end up losing language competence in L1 Kurdish upon extensive exposure to L2 Turkish, which sometimes might lead to a poor communication with Kurdish-speaking parents at home.

Cummins views proficiency as consisting of both BICS and CALP. Nevertheless, due to the nature of the linguistic aspects under investigations in the current study, unless stated otherwise, the terms cognitive-academic proficiency, linguistic competence and language proficiency are used interchangeably in reference to CALP only.

## CHAPTER 2

## THE LITERATURE REVIEW

Introduction

The following chapter is organized into five main sections. The first section presents a brief background literature regarding bilingualism and third language (L3) acquisition, especially in the minority language context. The second section gives a detailed account of the Linguistic Interdependence Hypothesis followed by a discussion of research testing the hypothesis in different sociolinguistic and educational contexts. Section 3 begins with a discussion of the role of reading comprehension in school achievement and its relationship with language proficiency. In addition, a discussion of transfer of reading skills across languages is presented together with relevant research carried out previously. The final section aims at discussing the morphological awareness and its relationship with reading comprehension and language proficiency in the context of linguistic interdependence with relevant research.

## Bilingualism and Third Language Acquisition

Bilingualism is the state of possessing a second language learned simultaneously with a first language or subsequently (Romaine, 2005; Bhatia \& Ritchie, 2006), and it has been studied in the field of second language acquisition (SLA). The literature agrees on that bilingualism is a complex process and multifaceted (Ellis 1994;

Mitchell \& Myles 2004), therefore it has been studied from many perspectives. Some of the researchers focused on the relationship of bilingualism and cognition (e.g., Bialystok, 2001; Cook, 2003 among others), while some others investigated bilingual children in education (e.g., Cummins, 1979; Baker, 1996). Recent studies suggest that learning a third language or trilingualism can be even more complex (Williams \& Hammarberg, 1998; Cenoz, 2000; De Angelis \& Selinker, 2001; Odlin, 2003). Although third language acquisition (TLA) has been usually dealt with in SLA field, several studies have reported that TLA differs essentially from second language learning despite some similarities (Williams \& Hammarberg, 1998; Cenoz, 2000). Cenoz (2000) lists the main differences as (1) the variation of order in which the languages are acquired, (2) sociolinguistic factors, and (3) the psycholinguistic processes involved. With respect to the variation for order of acquisition in SLA, there may be two possibilities: either the L2 is acquired after L1, or the two languages are acquired at the same time. If there are more than two languages in this process, then more possibilities of variation for learning order will be available. The second difference is about socio-linguistic factors referring to a set of contextual and linguistic factors influencing L3 competence and performance. Some important socio-linguistic factors that should be kept in mind are the context where the languages are being learnt and used, linguistic typology and the socio-cultural status of the related languages (Cenoz, 2000). In relation to linguistic typology, Odlin (2003) suggests that both actual linguistic distance (typology) and the perceived distance ${ }^{9}$ are important variables in third language acquisition. The last difference stated in Cenoz (2000) is about psycholinguistic processes which are mostly

[^7]characterized by language proficiency, metalinguistic awareness and interrelationship/interdependence among the languages involved. Studies show that those bilinguals who attain higher proficiency levels in their previous languages are also likely to end up with higher proficiency levels in learning a third language (Cummins, 2000b).

Given that a growing number of people access to three or more languages, it is important to study the complex and multifaceted nature of third language acquisition described above (Cenoz \& Jessner, 2000). The studies show that learning a third language is a natural procedure for people living in multi-national, multiethnic regions such as India, the Basque Country in Spain, Luxembourg, Belgium, Canada, and so on (Cenoz, Hufeisen \& Jessner, 2001). People in these countries are naturally exposed to two or more languages normally without explicit instructions. Nevertheless, acquisition of a third language in some other parts of the world takes place as a conscious, deliberate effort as people add a third language to their linguistic repertoire through instruction in school settings or in language courses. No matter through how different ways people learn languages, the languages known to bi/multilinguals are unequivocally in a continuous state of interaction, which Cook $(1995,2003)$ has referred to as multicompetence. For Cook (2003), multilingual learners have a different knowledge of their languages, a different kind of language awareness and a different language processing system. These differences are argued to foster cognitive advantages for multilinguals which assist them to be better language learners than monolinguals. In line with what Cook (2003) suggests, many studies have reported that learners' existing linguistic knowledge influences the development of additional languages (Ellis, 1994; Cenoz \& Jessner, 2000; Cenoz, 2001; 2003; Herdina \& Jessner, 2002). In this sense, Griessler (2001) discusses the
facilitative effects of knowing two languages on learning of a third language thanks to accumulated experience in language learning and developed metalinguistic awareness gained in foreign language classrooms. The researcher suggests that there is a dynamic interplay among such variables as linguistic skills, communicative strategies, language learning and memorization techniques, and metalinguistic awareness in learning a third or additional language which allows for skills transfer not only from L1 or L2 to L3 or an additional language, but also vice versa. Similarly, Herdina and Jessner (2002) propose that the acquisition of more than two language systems leads to the development of new skills such as learning how to learn and it also facilitates third/additional language acquisition as learners use metalinguistic awareness to explore the cognitive and linguistic mechanisms underlying language learning.

Reviewing the literature on facilitative effects of knowing two languages on learning a third language, Jorda (2005) suggests that learning a third/additional language helps to develop not only internal processing mechanisms, but also the use of this language. Moreover, it helps multilingual people put extra effort in maintaining and developing the languages known by them. Likewise, Lasagabaster (2000) suggested that students having good command of two languages (Basque and Castilian) show higher proficiency levels in a third language (English) even when factors such as socioeconomic level, exposure to the language, general intelligence and motivation are controlled. The researcher also reports that bilingualism promote higher abilities to think about the language while learning a third language. Similarly, Thomas (1988) reports that bilinguals are more sensitive to language as a system and this helps them show better performance in formal language learning.

One of the most influential attempts to explore the relationship between/among languages known to bi/multilinguals and how they are treated in school contexts is the Linguistic Interdependence Hypothesis.

## The Linguistic Interdependence Hypothesis

Cummins (1979) states that earlier attempts to explain the discrepant school performances of bilingual students focused only on extra-linguistic factors such as socio-economic status, community support, prestige of languages involved, teacher expectations, and so on. However, he notes that language, too, plays a central role. In order to explain the role of language in relation to the school performances of bilingual students, he formulated the Linguistic Interdependence Hypothesis (1979, 2000), with which he attempts to analyze the interactions between linguistic, sociocultural, and school program factors as central issues influencing academic and cognitive development of bilingual students. In fact the idea of interdependence of languages was previously put forward in research conducted by Skutnabb-Kangas and Toukomaa (1976), who found empirical evidence for influence of L1 development on L2 development among Swedish-Finnish bilingual students. This initial proposal has been developed by the Linguistic Interdependence Hypothesis in 1979, and revised more elaborately in subsequent years.

In its broadest sense, the hypothesis assumes that a cognitively and academically beneficial form of bilingualism can only be achieved on the basis of adequately developed language skills in bilinguals' both languages since the linguistic ability and language skills are interdependent. In relation to these assertions, Cummins (1979) has initially formulated two hypotheses: The
developmental Interdependency Hypothesis and the Threshold Hypothesis. The former proposes that the development of competence in the L2 depends on the type of competence already attained in the L1 when exposure to the L2 begins. On the other hand, the Threshold Hypothesis suggests that there may be threshold levels of linguistic competence which must be achieved by a bilingual child both in order to avoid cognitive disadvantages and allow the potentially beneficial aspects of bilingualism to influence her/his cognitive and academic functioning. While the former was mainly concerned with the functional interdependence between the development of linguistic skills between/across languages, the latter dwelled on the cognitive and academic consequences of different patterns of bilingual skills and how language competence and cognition were in contact. However, in later years, Cummins (1991, 2000a) has revised his initial formulation and has proposed that the Threshold Hypothesis might not directly relate to the classroom practices of bilingual students since it is generally an academic discussion and abstract formulation. For him, it focuses exclusively on the relationship of bilingualism and cognition which is not easy to define and observe via testing instruments. However, he says that it is well-supported with research that "the continued development of bilingual children's two languages during schooling is associated with positive educational and linguistic consequences" (2000a: 175).

## The Threshold Hypothesis

The Threshold Hypothesis evolved as an attempt to resolve the apparent inconsistencies in the result of early and more recent studies on the relationship between bilingualism and cognition (Cummins, 1979). It simply suggests that the
proficiency levels achieved by bilinguals in each of their languages act as" a significant variable in mediating the effects of their bilingual learning experiences on cognition" (229). These effects can bring about positive outcomes as well as negative ones depending on the type of linguistic competence attained in each language.

Cummins (1979) cites the earlier studies, some of which report negative findings whereas some others reveal positive outcomes of bilingualism in relation to cognitive functioning of bilingual children. Among the positive outcomes from various studies cited in Cummins (1979) are analytic orientation to linguistic and perceptual structures, greater sensitivity to linguistic, perceptual and interpersonal feedback cues, general intellectual development, and divergent thinking. On the other hand, negative findings cited in Cummins (1979) include lower levels of verbal and academic skills, lower scores on fluency and flexibility scales, and less than nativelike skills in both languages when compared to monolinguals, a case which is described as semilingualism (Skutnabb-Kangas \& Toukomaa, 1976).

Attempting to explain the negative and positive findings, Cummins (1979) has suggested that the positive results are observed in the studies carried out in additive bilingual contexts, in which bilinguals' L 1 is dominant or at least as prestigious as the L2 and it is in no danger of replacement by the L2. However, the participants of studies reporting negative results are from minority language groups, whose L1 is gradually replaced by a more prestigious L2 (i.e. 'subtractive' bilingualism). While in additive bilingual contexts, children add another language to their existing linguistic database, in subtractive situations, many bilinguals are characterized as having less than native-like proficiency in one or both of their languages.

In order to explain different types of competences and disparities reported in these studies, the Threshold Hypothesis has proposed two thresholds, the first being a lower threshold and the second being a higher threshold. The former suggests that if a child attains only a low level of competence in one of her/his languages, then the child will not be able to benefit from the cognitive advantages of bilingualism and prior language learning experiences. Moreover, if the child cannot go beyond the low threshold level in at least one of the languages, then negative cognitive effects can be observed. These claims result from the idea that bilingual children's competence in a language may be weak to the extent that it can impair the quality of their interaction with their educational environment through that language (Cummins, 1979). On the other hand, if the child surpasses a high threshold level and achieve high levels of language competence in both languages, then positive cognitive results are predicted. Cummins (1979) notes that results from French-immersion programs (Swain, Lapkin, \& Barik, 1976) support the prediction that Anglophone students with high levels of French performed significantly better than low French achievers on tests although the low achievers did not suffer from any cognitive disadvantage. As for the minority language situations, he notes that a prerequisite for attaining a higher threshold level of bilingual competence is the maintenance of L1 skills. However, it is important to note that Cummins (1979) does not define the 'threshold' in absolute terms; rather, he says, it is likely to vary according to the children's stage of cognitive development and the academic demands of different stages of schooling.

Since the introduction of the hypothesis, much research has been conducted to test the hypothesis. As an attempt to summarize these studies and to answer some of the criticisms regarding the weaknesses of the model, Cummins (2000a) has revised the original hypothesis admitting that it was initially vague in some respects.

He notes that the extent to which students needs to attain strong proficiency levels, namely threshold levels, both in the L1 and L2 so as not to suffer from adverse developmental consequences was not specified in his earlier formulations of the hypothesis. Therefore, he suggested that a clear-cut threshold level cannot precisely be defined, but rather a relative threshold depending on the psycholinguistic situation of the participants can be considered. Likewise, elaborating on linguistic and educational contexts of bilingual situations, he claimed that a certain degree of proficiency is required in both languages if academic input is to be introduced in both languages. On the other hand, if the input was provided mainly through the L2, then attaining a sufficient proficiency level only in the L2 would be enough. Also the use of such terms as 'semilingualism' and 'native-like competence' are found to be problematic (Martin-Jones \& Romaine, 2005; MacSwan, 2000). In the revised version, he has also made the point that when there is a claim for cognitive advantages, the scope of the term 'cognitive' should be defined first, because if the term 'cognitive' refers to non-verbal abilities, then it is more difficult to expect strong positive effects, whereas if the term includes verbal cognitive abilities such as vocabulary-concept knowledge or metalinguistic knowledge, then there is strong evidence for the cognitive advantages. Furthermore, he has made an elaboration on the type of proficiency handled in the Threshold Hypothesis saying that it is cognitive-academic language proficiency, which will lead to improved cognitive effects in school settings on the part of bilinguals. That revision came out of his meticulous discussion of CALP and BICS, explained previously (in chapter 1).

Furthermore, as an answer to some critics, Cummins (2000a) states that the Threshold Hypothesis certainly does not claim that a child's language is intrinsically 'superior' to any other's in some context-free sense. The hypothesis simply suggests
that if students have not developed sufficient access to academic registers in either of their two languages, and if the instruction does not provide the type of support that the students need to develop this access, then their academic, linguistic, and cognitive development might not be stimulated through their classroom interactions.

Since the introduction of the hypothesis, scores of studies have attempted to test the hypothesis. Cummins (2000a) has reviewed some of the research, analyzing the Threshold Hypothesis in different linguistic contexts. One of the studies cited by him is conducted by Ricciardelli (1992), who found reliable evidence for the Threshold Hypothesis. The study was conducted with Italian-English young bilinguals in comparison to English monolinguals on tests of proficiency, metalinguistic awareness and cognitive abilities. For the study, children with high levels of proficiency were compared to those with low levels in one or both of the languages. The results supported the Threshold Hypothesis and showed that those children who attained a high degree of proficiency in both English and Italian outperformed the others on cognitive measures. However, a bilingual superiority was not found for those attaining high level proficiency in only one of the languages. Moreover, those having low levels in both Italian and English performed more poorly than all other groups.

As for the trilingual school situation, Cummins (2000a) cites Lasagabaster (1998) as research supporting the Threshold Hypothesis. The research took place in the Basque country with students from grades 5 and 8 . They were bilingual in Basque and Spanish and learning English as their third language. For the study, the students were assessed for their academic language proficiency and metalinguistic abilities of the three languages (Basque, Spanish and English) and they took a nonverbal ability test (i.e., Raven's Progressive Matrices). The results showed that
scores on metalinguistic tests and their language competence were directly related. High achievers, as the Threshold Hypothesis predicted, received the highest scores in metalinguistic tests in all three languages (see pp. 41-42 for more details of this study).

A series of other studies (Bild \& Swain 1989; Swain \& Lapkin, 1991; Swain, Lapkin, Rowen \& Hart, 1991 cited in Cummins (2000a) suggest that development of bilingual students' L1 proficiency can positively influence the learning of additional languages. These studies showed that students having literacy skills in a heritage language performed better even when they came from lower socio-economic backgrounds. This suggests that trilingualism is a feasible educational goal and the development of literacy in the minority language facilitates the learning of a third language in school (Cummins, 2000a).

Upon reviewing all these studies from different countries and language contexts, Cummins (2000a) suggests that the continued development of academic proficiency in bilinguals' two languages is associated with metalinguistic, academic, and cognitive functioning. Therefore, for him, education policies and practices need to encourage linguistic minority students to develop their L1 abilities to as great an extent as possible both to stimulate skills transfer to the L2 and to reap the significant personal and more subtle educational benefits of an additive bilingualism.

Cummins also claims that the Threshold Hypothesis can provide a framework that can predict the academic and cognitive affects of different patterns of bilingualism; yet he notes that it tells us little about how language skills and proficiency levels across languages known to a bi/multilingual are related to one another (Cummins, 1979). Thus, he proposes another hypothesis, which is referred to
as the Interdependence Hypothesis in order to shed light on possible interactions of the languages involved.

## The Interdependence Hypothesis

This hypothesis, like the Threshold Hypothesis, has undergone some changes since its earlier postulation. In its initial form, the hypothesis was termed as the Developmental Interdependence Hypothesis and suggested that "the level of L2 proficiency, which a bilingual child attains is partially a function of the type of proficiency the child has developed in the L1 at the time when intensive exposure to L2 begins" (Cummins, 1979: 233). Cummins argued that if the child is encouraged to develop vocabulary and concepts, namely literacy skills in the L1, then when exposure to the L 2 begins, it is likely to arrive at high levels of L 2 competence as is the case with most middle-class children. He claimed that when the use of L1 is promoted by the child's linguistic environment outside the school, then a high level of L2 achievement is also likely to occur at no cost of L1 competence. On the contrary, if the child's L1 proficiency is limited in certain respects, then it can result in a similar limitation on the L2 development, as well. In this hypothesis, the primary emphasis is on successful development of L1, which is assumed to yield in positive results in the L2, too. He suggests that learners can make use of their L1 and make it work in L2 acquisition because high levels of L1 proficiency can help L2 acquisition, and conversely, high proficiency in the L2 has positive effects on L1 development.

In later formulations, Cummins (1981, 2000a) has termed the hypothesis as the Interdependence Hypothesis and put special emphasis on the construct of 'proficiency' and expanded the hypothesis by suggesting that L1 and L2 literacy
skills are interdependent. Additionally he has postulated that there is a 'common underlying proficiency (CUP)', which refers to the cognitive/academic language proficiency that underlies academic performance across languages. In fact, it was put forward as a response to a widespread false assumption that L1 and L2 proficiencies of bilinguals are separate and not interacting. According to this erroneous view, the activation of one language would result in decline in the other since the latter would be less exposed to the input. The basic idea behind the CUP is the same with the Developmental Interdependency Hypothesis; however, the emphasis shifts from proficiency to the literacy skills across languages. The CUP model of bilingualism suggests that underlying literacy skills both in L1 and L2 dwell on the same cognitive/academic language proficiency and thus development of literacy in either of the languages can promote the development of the other given adequate motivation and exposure to both, either in school or wider environment (Cummins 2000a). In this form, the hypothesis predicts transfer of academic knowledge and literacy skills both from L1 to L2 and vice versa even when the surface aspects such as orthography or fluency are separate.

In one of his latest discussions (Cummins, 2009), he suggests that the Interdependence Hypothesis does not only refer to transfer of skills crosslinguistically but rather, depending on the sociolinguistics situation, it predicts five types of transfer:

- Transfer of conceptual elements (e.g., understanding the concept of photosynthesis ${ }^{10}$ ).

[^8]- Transfer of metacognitive and metalinguistic strategies (e.g., strategies of visualizing, use of visuals or graphic organizers, mnemonic devices, vocabulary acquisition strategies, etc.).
- Transfer of pragmatic aspects of language use (willingness to take risks in communication through L2, ability to use paralinguistic features such as gestures to aid communication, etc.).
- Transfer of specific linguistic elements (knowledge of the meaning of photo in photosynthesis).
- Transfer of phonological awareness - the knowledge that words are composed of distinct sounds (pp. 25).

As in the case of the Threshold Hypothesis, Cummins (2000a) has reviewed some of the studies in support of his Interdependence Hypothesis. The evidence, he says, comes from two sources: first from research on the relationship between academic proficiency in the L1 and L2, and second, from research on bilingual education that demonstrates transfer of academic knowledge and skills across languages.

One of the studies cited is the Theoretical Framework for the Education of Language Minority Students developed by the California State Department of Education (1985). The study found significant positive correlations between English and Spanish reading skills (range $r=0.60$ to 0.74 ).

A similar study cited in Cummins (2000a) is González (1986, 1989), which found stronger relationship between English and Spanish reading skills than between English reading skills and English oral communicative skills. The aim of the study was to find out whether academic skills could be predicted from oral communication skill. The study involved Spanish-speaking immigrant students in grade 6 in the USA. The results showed that there is a positive correlation between English and Spanish reading comprehension scores ( $\mathrm{r}=0.55, \mathrm{p}<0.01$ ). However, ratings of communicative competence was not significantly correlated with reading
comprehension either in English ( $\mathrm{r}=0.33$ ) or in Spanish ( $\mathrm{r}=0.22$ ). The results are in line with the Interdependence Hypothesis in that the academic aspects of the language are interdependent but not necessarily related with the oral competence.

Another relevant study Cummins (2000a) cites is longitudinal and it investigates Turkish-Dutch bilingual students in the Netherlands (Verhoeven, 1991). The study was conducted with 138 immigrant Turkish students in the Netherlands. For the study, students receiving initial reading instruction in Dutch (submersion) and those receiving initial reading instruction in Turkish followed by Dutch-reading 6 months later (transitional bilingual program) were compared. The results showed positive transfer and bidirectional relations of reading skills in both groups. In the first group the direction was from Dutch (L2) to Turkish (L1) while in the second group, the students transfer reading skills from the L1 to L2 and from the L2 to L1. The author concluded that development of L1 competence leads to improvement in L1 skills with no retardation of skills in the L2. Moreover, the students from the second group, who received initial reading instruction in the L1 performed better than the first group, which was more characterized as a submersion group, receiving literacy instruction only in L2.

Summarizing the studies, Cummins (2000a) states that both the correlational research and the outcomes of bilingual programs are overwhelmingly consistent with the predictions derived from the Interdependence Hypothesis.

Overall, although the Threshold Hypothesis and the Interdependence Hypothesis attempt to address separate but related issues, they both remain powerful constructs that explain the linguistic factors that are important in the dynamics of the bilingual students' interactions with their educational environment. However, both of
the hypotheses have been subject to several criticisms. Nevertheless, most of the criticisms raise methodological concerns rather than conceptual.

One source of the criticism suggests that the hypotheses have neglected social factors in explaining the school performance of bilingual students. Yet, in fact, Cummins himself sets out the hypotheses in order to explain the interactions between linguistic, socio-cultural, and school program factors. Rather than underestimating the role of social and political environment in the differential outcomes of different types of bilingual competencies, he recompenses the crucial role of language in tandem with social-political factors influencing academic and cognitive development of bilingual children. In one of the latest formulations, Cummins (2009) suggested that psycholinguistic and sociological principles can explain the achievement or underachievement of bi/multilingual students.

Another criticism is concerned with the construct of 'proficiency' and raised by Edelsky, Hudelson, Flores, Barkin, Altweger, Jilbert (1983) and Martin Jones \& Romaine (1986). The critics claimed that while measuring the academic skills of students with various tests, what is being measured is only their 'test wiseness', which is more a skill of doing tests rather than a real indicator of the students' language competence. A similar reaction came for the use of the word 'semilingualism' (MacSwan, 2000). The author claimed that the construct contributes much more to the malady than the remedy in the education of linguistic minorities. Like the previously mentioned critics, he, too, argued that Threshold Hypothesis is just another deficit position of lower-class minority children based on unreliable and invalid testing instruments. But, in fact Cummins himself is not a supporter of the term 'semilingualism' and he cautiously uses it. As a response to the criticisms, Cummins (2000a) claimed that a universal condemnation of all formal test
situations is simplistic and unsupported. Moreover, he warned that dismissing the issue with vague comments on the invalidity of the instruments and procedures used in early studies only perpetuates veiling the issue rather than reversing discriminatory practices in school settings where bi/multilingual students attend.

Cummins' major hypotheses have undergone some revisions over the years. Going back to the issue of the distinction between CALP and BICS, it is important to note that in recent work, Cummins (2000a) suggests that CALP is not superior to BICS and the Interdependence Hypothesis applies to both. Yet for the simple reason that the former is more relevant to the school setting and academic context. Therefore, the hypothesis has been explained in relation to CALP. Cummins (2000a) also notes that neither the research data nor the Interdependence or Threshold hypotheses say anything about:

- whether L1 or L2 should be the initial language of reading instruction within a bilingual program;
- the amount of time that should be spent through each language in the early grades, except that there should be sufficient emphasis on academic development in both languages during the elementary school years to provide students with the opportunity to develop academic knowledge and skills in each language;
- when to introduce English reading and language arts within a bilingual program;
- whether there is any specifiable threshold levels of 'oral English' that students should have acquired before formal English reading instruction is introduced.

Although the hypotheses do not prescribe L1 or L2 for initial instruction, Cummins (2000a) suggests that in situations when bilingual students may have varying levels of proficiency in their L1 and L2 on entry to the school, it may be more effective to promote literacy in both L1 and L2 simultaneously or in close succession, rather than delaying the introduction of reading instruction in either. The goal would be to work for facilitative transfer across languages from an early stage on by encouraging students to write as well as to read (literature) in both languages.

Previous Studies Testing the Linguistic Interdependence Hypothesis Although the Linguistic Interdependence Hypothesis has been widely discussed in the bilingual contexts, it has not received much attention in L3 acquisition research until recently. One rare study is Lasagabaster (1998), which tested the role of metalinguistic awareness and the Threshold Hypothesis in three languages that are in contact in the school setting, namely Basque, Spanish and English. The participants were 126 students from the 5th grade (10-11-year-olds), who were in their second year of learning English at school, and 126 students from the 8th grade (13-14-yearolds), who were in their third year of learning English at school. The students were literate in three of the languages and in direct contact with Basque and Spanish on a daily basis inside and outside the school. Moreover, they were exposed to English through the school, mass media and contact with tourists visiting their country. The
participants completed Basque, English, and Spanish tests of proficiency measures, metalinguistic awareness tasks, as well as a background questionnaire and Raven's Progressive Matrices Test. In order to test the Basque language skills of the students, the researcher used a standardized test created by the Department of Education of the Basque Government which required the students to complete a reading comprehension task and a writing one. For Spanish language proficiency, an equivalent standardized test involving the same activities was used. Finally, the English language proficiency of the students was measured via a test of vocabulary and grammar and tests of the four linguistic skills (listening, reading, speaking and writing). The dependant variable was measured via a test of metalinguistic abilities, which consisted of four tests (synonymy, acceptability, ambiguity and phonemic segmentation. The researcher declares that the metalinguistic awareness test was originally prepared in Italian by Pinto \& Titone (1995). The results of the study showed that that the Threshold Hypothesis could be applied to a three language situation either by establishing a third threshold or by maintaining the two original ones proposed by Cummins (1979). In other words, the researcher suggested that when there are three languages involved, four categories could be created based on the standardized proficiency scores of the participants. The first group consisted of the students who were highly competent in three languages (Basque, Spanish and English), the second group highly competent in two of the three languages, the third those highly competent in one of the three languages, and the last group whose scores indicated they were not highly competent in any. When the metalinguistic awareness scores of the students were examined in relation to their proficiency scores, the results showed that those students highly competent in all three languages did not significantly differ from those highly competent in two of the languages.

However, both of these groups who were highly competent in three languages and those highly competent in only two of the languages performed significantly better than those who were not competent in any of the languages. The researcher concluded that the students from both grades performed markedly higher in metalinguistic awareness tests when they are at least highly competent in one of their languages.

Another similar study was again conducted in the Basque context by Sagasta (2003) to compare bilingual learners who present different levels of bilingual proficiencies in the acquisition of writing skills in the L3 English. The researcher predicted, based on the Linguistic Interdependence Hypothesis that there will be a positive relationship between writing scores in Basque, Spanish and English. In other words, it is predicted that students who are more proficient in two of the languages will obtain higher scores in writing tasks and that a higher degree of bilingualism in L1 Basque and L2 Spanish will bring about better results in L3 English proficiency. The participants of the study were 155 secondary school students, aged 12-16, who were studying in a Basque state school. For these participants, the language of communication and instruction was Basque since the age of 3; however, later on students started to take 3 hours of Spanish and English lessons weekly at about the same time in grade 3 at the age of eight. Half of the students were dominant in Basque and the other half were dominant in Spanish. Researcher collected data over a period of three months at monthly intervals. The participants first wrote an informal letter and a recipe in Basque, then in Spanish and finally in English. The results show that; 1) a higher level of bilingualism is associated with higher scores in different measures of writing in the L3 English; 2) that in a language contact situation, education through the medium of the minority language (L1 Basque)
contributes to fostering high levels of additive bilingualism in both the official and the minority language; 3 ) transfer of writing skills occurs as predicted by the Linguistic Interdependence Hypothesis; 4) the level of proficiency could predict the outcomes of writing scores in three languages. Finally, confirming the Interdependence Hypothesis, it is reported that the students who developed the highest degree of bilingual competence in Basque and Spanish also obtained the highest scores in the L3 English proficiency measures.

A similar study was conducted by Mũnoz (2000) in the Catalonia context. The researcher studied the overall linguistic competence of three groups of students (aged between 10, 12 and 17) in L1 Catalan, L2 Spanish and L3 English and the influence of age on foreign language acquisition. The students were instructed bilingually in Catalan and Spanish and they started to learn English in grade 3 as in the previously mentioned study. The hypotheses of the study predicted that high levels of competence in the L1 and L2 will correlate positively with a high level of competence in the L3; and that 12-year-old students, after 200 hours of instruction, will have higher results than 10 -year-olds in all the tests, which particularly focus on the morphosyntactic aspects of the language. In order to determine the proficiency levels of the students, the research administered a dictation task and a cloze test as well as a multiple choice grammar test and a listening comprehension test. In conformity with the first hypothesis, the findings showed that there were significant correlations among the tests of Catalan, Spanish and English. Those students with a high level of proficiency in the L1 Catalan and L2 Spanish also presented higher levels of proficiency in their L3 English. Yet, the strength of correlation between the L1 Catalan and L2 Spanish scores was higher when compared with the correlation
strength between the L1 Catalan and L3 English. The researcher interpreted the findings as a support for the Linguistic Interdependence Hypothesis.

In an experimental research design, Hauptman, Mansu and Tal (2009) studied the development of academic literacy skills of 10th grade adolescents in Classical Arabic (L1), Hebrew (L2) and English (L3). The study took place in Israel with remedial Bedouin students who received instruction for reading comprehension and writing skills in Arabic, Hebrew, and English. Arabic was the mother tongue of the students and they were exposed to Hebrew starting from grade 3 (ages 8-9) and to English from grade 4 (ages 9-10). A total of 249 students were selected among those who failed in reading comprehension in the three languages as determined by their scores on a national exam. 189 of them were placed in the experimental group and 58 of them took part in the control group. The researchers reported that they were not proficient in their L2 and L3, and also the students from both groups came from low socioeconomic backgrounds and their parents had either no or little schooling. In order to assess their language competence in each language, the students from both groups took three official state exams measuring linguistics proficiency and literacy in each language as pre-test. The tests in each language included an academic passage with exercises to ascertain linguistic knowledge and reading comprehension, and a writing task to ascertain writing ability. For reading comprehension, the researchers examined students' understanding of the main idea and comprehension of the key words of text structure. As for writing ability, they examined content, structure and language and style in the written productions. The researchers tested the assumption that academic language skills such as reading comprehension and writing skills can potentially be transferred across languages because of the common underlying proficiency, as predicted by the Interdependence Hypothesis. For the
study, the students in experimental group received trilingual instruction in academic skills in reading and writing for a period of four months. The students were taught identical strategies of reading comprehension and writing skills simultaneously by the teachers of Arabic, Hebrew and English to promote academic mastery in these languages. The researchers reported that they intended to promote the CALP in all three languages, using cross-linguistic teaching tools in specific areas of CALP, especially genre conventions and basic reading and writing strategies. At the end of the period, the researchers collected data with post-tests similar to the initially used tests. The results suggested that the program has significantly contributed to improving both the overall level of proficiency achievement and the specific skills tested in reading comprehension and composition writing by the students in all three languages. The researchers suggested that the students benefitted from the intervention program particularly in the area of reading comprehension in all three languages and they concluded that the trilingual teaching model allowed multidirectional and dynamic interactions between the languages in reading comprehension strategies and in some writing skills as suggested by the Interdependence Hypothesis.

As can be observed in the review of relevant research conducted so far, many studies suggest that bi/multilingual students who achieve high levels of language proficiency are also likely to have more developed skills such as reading, writing and metalinguistic awareness. Reading skills and metalinguistic awareness skills are two important areas which are widely studied in relation to language proficiency in the field (Bialystok, 1991; Cenoz, 2003; Golonka, 2006). Cummins (1991, 2000a) argues that these language skills are interdependent and shared across languages because of a "common proficiency" underlying all the languages known to multilinguals. To be
able to better understand this process in three language situations, more studies are required. Conducting research on the relationship among language proficiency, reading comprehension and metalinguistic awareness, particularly morphological awareness across languages is a way serving to this end and this is what the present study aims to accomplish.

## Reading Comprehension Studies

Reading comprehension is considered to be one of the crucial components of school success because it determines the extent of content matter comprehension provided in class. Children with poor reading comprehension skills are handicapped in internalizing most types of subject matter content after the early stages at school (Cummins, 2000a). The mastery of reading comprehension, both in the L1 and in additional languages, along with speaking and writing skills, determine future curriculum achievements. Hence, it is crucial to study reading comprehension.

In L2 reading comprehension literature, it is observed that many of the studies use different methodologies to examine the phenomenon in relation to the Linguistic Interdependence Hypothesis. The main assumption of the hypothesis regarding reading comprehension is that reading strategies can potentially be transferred across languages when bi/multilinguals achieve sufficient proficiency levels in all the languages they are exposed to. Several studies have shown that reading strategies are transferred across languages and even across writing systems (Lambert \& Tucker, 1972; Bialystok, 1991; Durgunoğlu \& Hancin, 1992; Koda, 1994; Cummins, 1979, 2000a). For example, a personal letter or an expository text, a fable or a folktale has common conceptual principles and almost the same genre conventions in any
language and the strategies gained in dealing with one of them are therefore 'transferable' from one language to another. A reading task given in two languages of a bilingual draws on the same knowledge base (i.e., common underlying proficiency according to Cummins, 2000b) and that knowledge underlies either language. This entails that once reading ability is acquired in a language, it is available for use in the other languages as well. If the L1 abilities are poor, then the underlying academic proficiency would suggest improving L1 reading, and then allowing that ability to transfer. The opposite can also be assumed if reading abilities transfer across languages, improving L2 reading will lead to improved reading in the L1 as well (Alderson, 2000). Previous research suggests that language proficiency is a mediating factor in the transfer of reading abilities across languages. Clarke (1980) suggests that bilinguals first need to achieve certain levels of proficiency before they can transfer their reading skills and background knowledge from one language to another language in order to improve their reading comprehension in the target language. Alderson (1984) suggests that there is likely to be a language threshold beyond which L2 readers have to progress before their L1 reading abilities can transfer to the L2 situation. However, the proficiency level is not a pre-ordained level that can be described but rather it changes from reader to reader. Each reader will have their own threshold level to attain for effective reading and this threshold level may not easily be observed with hard data.

Several studies were conducted to analyze the relationship among L1 and L2 reading ability, and L2 linguistic proficiency (Bossers, 1991; Carrell, 1991; Bernhardt \& Kamil, 1995, Lee \& Schallert, 1997). They repeatedly found that the effect of L2 linguistic competence on successful L2 reading comprehension was more obvious than its effect on L1 reading abilities. However when readers gain
more competence in the L 2 , L2 proficiency and L 1 reading abilities become much more related.

In a study, Carrell (1991) investigated the relationship among L1 reading ability, L2 proficiency and L2 reading ability of two groups of Spanish learners of L2 English and English learners of L2 Spanish. The researcher found that for both groups, L1 reading and L2 proficiency were found to contribute significantly to L2 reading. However L2 language proficiency was found to be a better predictor of L2 reading performance. Yet, when reading comperehension was high in both L1 and L2, L1 reading ability was a stronger predictor of L2 reading comprehension.

In a recent study, Chuang (2007) examined reading comprehension skills of 8th grade Taiwanese students learning English as L2 in the school context. Participants were 345 Taiwanese students whose mother tongue was Chinese. The two languages of the students (L1 Chinese and L2 English) were sharply different from each other in terms of language typology and ortography. The researcher examined the transfer of reading strategies across L1 Chinese and L2 English. Apart from other reading related factors, the findings supported the cross-language transfer of reading strategies even when the writing systems of the L1 and L2 were very dissimilar. Yet, the researcher pointed out that those students with limited language proficiency had difficulties in transferring their reading strategies across English and Chinese.

Although transfer of reading comprehension and its relationship with language proficiency has been widely investigated in bilingual contexts, it has not yet been addressed in L3 acquisition context that much widely. One rare study is Sima (2006), which investigated the effect of bilinguality in L3 learning in relation to
reading comprehension. For this longitudinal study, data were collected from a bilingual and a monolingual group in order to observe whether knowing two langauges provide advanteges in reading comprehension in a third language. The first group consisted of 56 Turkish-Persian bilingual students learning the L3 English and the second group was composed by 42 Persian students learning English as L2 (aged 18-24) in a university context. The participants coming from a similar educational and socioeconomic background also had similar motivation and attitudes towards the languages involved. For the study, the participants were asked to answer reading comprehension tests taken from the First Certificate of English (FCE) tests. The results, revealed that the first group consisting of bilingual students learning L3 English obtained higher scores in reading comprehension tests of English compared to the first group who were learning English as L2.

Findings from these and similar studies suggest that effective L2 reading comprehension consists of sufficient L2 proficiency and good L1 reading skills and in L3 context, transfer of reading strategies is possible as predicted by the Linguistic Interdependence Hypothesis.

Other than the reading comprehension studies, in line with the Threshold Hypothesis, the research has also suggested that bilingualism can foster a higher degree of metalinguistic awareness when learning a third or additional language. Children, who have attained the knowledge of two languages, have been reported to develop a better sensitivity towards the meta-knowledge about their languages (Thomas, 1988; Bild \& Swain, 1989; Klein, 1995; Bialystok, 2006). In return, several studies have reported the contribution of different types of metalinguistic awareness to reading comprehension within and across languages (Bialystok, 2006).

## Metalinguistic Awareness

Metalinguistic awareness can be defined as "an awareness of the underlying linguistic nature of language use" (Malakoff \& Hakuta, 1991; 147) or as the "ability to think about and reflect upon the nature and functions of language" (Baker, 1996: 122). It allows an individual to step back from comprehension or production of an utterance in order to consider the linguistic form and structure underlying the meaning of the utterance.

Metalinguistic awareness includes phonological, morphological, syntactic awareness or word awareness. Phonological awareness is associated with knowledge of words, syllables, onset-rimes, and phonemes (Durgunoğlu, 2002). It involves an ability to identify segments in various positions of a word (e.g., initial, medial, final) and it is generally measured through phoneme-counting task, syllable-counting tasks, symbol substitution task and so on. Morphological awareness involves the ability to reflect upon and manipulate morphemes and employ word formation rules in one's language (Kuo \& Anderson, 2006) and tasks involved in measuring this type of metalinguistic awareness include word-completion task, word derivation and decomposition task. Syntactic awareness refers to the child's ability to notice the internal grammatical structure of sentences (Durgunoğlu, 2002) and is usually measured through grammaticality judgment tasks by identifying and sometimes correcting syntactic errors in sentences or sentence repetitions tasks. On the other hand, word awareness is linked to understanding the nature of the relation between words and their meanings and it is generally assessed through two tasks; one seeking to understand the word boundaries and count how many words there are in a
sentence and the other trying to recognize how words carry their meanings (Bialystok, 2006).

The research suggests that individuals, who are metalinguistically more aware, are able to categorize words into parts of speech; switch focus between form, function, and meaning; and explain why a linguistic unit (this could be a morpheme, word, phrase or sentence) has a particular function (Lasagabaster, 1998; Cummins, 2000a; Jorda, 2005). Many studies have examined the role of metalinguistic awareness in additional language acquisition (Diaz \& Hakuta, 1981; Galambos \& Hakuta, 1988 cited in Lasagabaster, 1998; Bialystok, 2006) and suggested that it is informative to study the relationship between language competence and metalinguistic awareness. They propose that metalinguistic awareness is mostly independent of the language in which a text is written (L1, L2, or L3) and therefore, no matter whether this awareness is acquired in L1 or L2, it can be transferred to other languages known to bi/multilinguals. Moreover, much research in second or third language acquisition field reports that metalinguistic awareness is not only affected by having obtained high levels of language proficiency; but it contributes enormously to attaining high levels of linguistic competence also (Bialystok, 1991; Lasagabaster, 1998; Jessner, 1999; Jorda, 2005). This influence and contribution has been studied in different settings with different language pairs and it has appeared that bilinguals have greater explicit knowledge of their two languages than monolinguals in the areas of phonological, morphological, syntactic awareness or word awareness (Grosjean, 1992; Cook, 1997; Bialystok, 2001; 2006). This is true in the third/additional language acquisition context as well (Lasagabaster, 1998; Cenoz \& Jessner, 2000 Jorda, 2005). These studies have argued that students may require a
threshold of language proficiency before they can leverage their metalinguistic awareness skills as a tool for better comprehension of a variety of text genre.

As mentioned before, metalinguistic awareness involves conscious manipulation skills in all domains of grammar such as phonology, morphology and syntax. Much research has concentrated on phonological and syntactic awareness in the context of child bilingualism. Nevertheless, there is not much research on the role of morphological awareness in the acquisition of certain skills (e.g., reading ability) in the L2 and L3. Therefore, this study deliberately chose to focus on morphological awareness and its relationship with reading comprehension in multilingual settings.

## Morphological Awareness

As noted earlier, morphological awareness is the ability to reflect upon and manipulate morphemes and employ word formation rules in one's language (Kuo \& Anderson, 2006). Morphological awareness comprises primarily knowledge about the pairing of sound and meaning in a language and the word formation rules that guide the possible combination of morphemes. Such awareness is a collection of several abilities such as recognition that words can be segmented into smaller, functionally identifiable elements; mapping these elements on graphic symbols; and assembling and dissembling segmental intraword information (Koda, 2000).

In the research so far, morphological awareness has been particularly investigated in relation to reading comprehension both in L1 research and in additional language learning in school contexts (Nagy, Virginia \& Abbott, 2006; Kieffer \& Lesaux, 2007). Kuo and Anderson (2006) argue that morphological awareness in a language becomes an increasingly important predictor of reading
ability in that language as children grow older because this awareness contributes to the decoding of morphologically complex words and it is therefore assumed to contribute to the development of reading comprehension. However, as Kuo and Anderson (2006) suggest the relationship between morphological awareness and reading is probably reciprocal rather than unidirectional. Moreover, in the field of SLA, there is a growing interest in the amount of research that studies transfer of morphological awareness across languages (Carlisle, 2003; Kuo \& Anderson, 2004). Most research findings favor the position that morphological awareness transfers across languages; however, they also suggest that language proficiency again plays a role in transfer. Carlisle (2000), Nagy et al. (2003), and others have argued that students may require a threshold of vocabulary and/or morphological awareness before they can transfer and leverage their morphological skills as a tool for learning words and comprehending text across languages.

In their comprehensive review, Kuo and Anderson (2006) suggest that there are at least three reasons why there should be a strong relationship between morphological awareness and reading. The first reason is that morphemes have semantic as well as phonological and syntactic properties. Therefore, morphological awareness is integrally related to other aspects of language knowledge and may provide a "more general index of metalinguistic capability" than phonological or syntactic awareness considered alone. The second reason relates to the way the mental lexicons are organized and its relationship with vocabulary learning which, in return, appears to be crucial for reading comprehension. The researchers claim that morphological information is utilized when processing complex words. Thus, children with more developed morphological knowledge may have an advantage in acquiring and retaining morphologically complex vocabulary, which is considered to
be a strong predicator of better reading ability. The third and the final reason is that morphological awareness may provide readers additional insights into the writing system since many writing systems encode both phonological and morphological information. It has been suggested that having more developed morphological awareness and being better able to identify allomorphs (different phonological representations of the same morpheme, e.g., [saIn] in sign and [sIg] in signature) would enable readers to read morphologically complex words more accurately and fluently.

The studies investigating morphological awareness have looked into three types of morphology, namely inflectional morphology, derivational morphology and compounds (e.g., Clark \& Berman, 1984, 1987; Leong, 1989; Tyler \& Nagy, 1989; Elbro \& Arnbak, 1996; Lewis \& Windsor, 1996; Casalis \& Louis-Alexandre, 2000; Kou \& Anderson, 2006). Due to the focus of the present research, only derivational morphology is discussed. Derivational morphology involves adding a morpheme to change the part of speech or the meaning of a base morpheme. While derivational morphemes are productive in some languages like Turkish, they are less productive and more restrictive in other languages such as Kurdish and English. There are certain limitations on how some morphemes can be added to base root morphemes. For example, in English, -able can only be attached to verbs but not to nouns to form adjectives (Kuo \& Anderson, 2006).

Another important point is the distinction between the acquisition of morphology and the development of morphological awareness. Kuo and Anderson (2006) state that the acquisition of morphology is concerned with the development of the ability to comprehend and produce morphologically complex words in natural speech. However, morphological awareness refers to the ability to reflect on and
manipulate word formation rules in the absence of a communicative context. Yet, they are closely related phenomenon in that morphological awareness can be seen as the more explicit representation and manipulation of implicitly acquired morphological rules.

In L1 context, Carlisle and Fleming (2003) have studied morphological knowledge and its relation to reading comprehension among first and third graders. The students were given two tasks involving lexical analysis of morphologically complex words. Two years later, a measure of processing derived words within sentences and a test of reading comprehension were given to them. Their findings support the idea that morphological processing in the late elementary years contributes to reading comprehension significantly.

In the L2 context, Kieffer and Lesaux (2007) have examined the relationship between morphological awareness and reading comprehension in English among Spanish-speaking L2 English learners, who were followed from fourth through fifth grades. The researchers specifically investigated the derivational morphology in relation to reading comprehension in an experimental research design. For the assessment of morphological awareness, the students were asked to extract the base from a derived word in order to complete a sentence. As for the reading comprehension, they were given a cloze test and a traditional reading comprehension test, in which students read short passages and answer multiple-choice questions following them. The participants were 87 students of fourth and fifth grades instructed both in Spanish (L1) and English (L2) in three different school settings in the USA. Multiple regression analyses showed that morphological awareness and reading comprehension strengthen between the fourth and fifth grades, and in the fifth grade, morphological awareness was found to be a significant predictor of
reading comprehension. The researchers also note that students' overall language competence play an important role in morphological awareness.

Another recent study conducted in an L2 context (Ramirez, Chen, Geva \& Kiefer, 2009) investigated within and cross-language effects of morphological awareness on reading among Spanish-speaking children learning English. The participants were 97 Spanish-speaking children in grades 4 and 7. Morphological awareness in Spanish and in English was measured via two tasks of derivational morphology. The first task was developed originally in English by Singson, Mahony and Mann (2000), and it required participants to complete a sentence by selecting the appropriate derived form from 4 choices that had the same stem but different derivational suffixes. The second task was a modified version of the Test of Morphological Structure designed by Carlisle (2000) in which the participants were asked to orally produce a derived form of a given target word to complete a sentence. The results showed that both Spanish morphological awareness and English morphological awareness contributed unique variance to students' reading abilities both in Spanish and English after controlling for other reading related variables. Moreover, a transfer of morphological awareness was observed from Spanish to English, but not from English to Spanish. The researchers suggested that this can be because of rich morphology in Spanish compared to morphology in English or simply due to the specific morphemes (derivations) under investigation. Overall, the researchers conclude that morphological awareness is an important part of reading ability both in L1 and L2.

To recap, research findings obtained so far suggest that morphological awareness may not have a pronounced effect on the reading achievement of beginning readers, but its importance becomes more visible in later grades. The
relationship between morphological awareness and reading comprehension is likely to be reciprocal rather than unidirectional. Results from a variety of cross-linguistic research suggest that morphological awareness transfers across languages when participants show higher performance in morphological awareness tasks. Lastly, language proficiency seems to be a predictor factor in mediating the effect of morphological awareness on reading comprehension and cross-language transfer of morphological awareness.

In the present study, morphological awareness was studied in tandem with reading comprehension and language competence of the students. It was assumed that students with higher language proficiency will perform better in morphological awareness tasks and this, in return, will lead to more success in reading comprehension in each of the languages involved.

## CHAPTER 3

## METHODOLOGY

Introduction

This study aims to explore a possible interplay among different components of linguistic competence of $8^{\text {th }}$ grade students in L1 Kurdish, L2 Turkish, and L3 English. To this end, students were tested in terms of their language proficiency, reading comprehension, and morphological awareness. 50 students were selected from among those living in the downtown Van and its district, Erciş. All of the students were born into Kurdish-speaking families and acquired Kurdish as their mother tongue. However, both the parents and the students have had a complex language contact experience. The primary language of everyday interactions in the family is usually Kurdish but they all use Turkish for official and social interactions on a daily basis. In other words, they live in a Kurdish-Turkish bilingual environment. Therefore, the current research does not consider language competence as a monolithic ability, but rather conceives it as a dynamic bilingual condition in which different skills and languages are required in different language contexts and situations.

In line with the Linguistic Interdependence Hypothesis formulated by Cummins (1979, 2000a), it is hypothesized that students' proficiency levels, reading comprehension and morphological awareness in L1 Kurdish, L2 Turkish and L3 English would correlate positively and contribute to each other. To be able to test this hypothesis, a quantitative study was carried out to collect data regarding the students'
proficiency levels, reading comprehension and their morphological awareness in each of the languages. Data collected over a two-week period and in group sessions.

Prior to the study, a background questionnaire was administered to possible participants to get information about their age, years of exposure to all three languages, and their socioeconomic status. This questionnaire enabled us to eventually select our participants. Also to minimize the test-bias, the instruments used in the current research were developed in a way that they required minimal instruction, yet for each test in each language, a trial session was administered so that students were not confused about the requirements of each specific task. The analyses were carried out through multiple techniques (correlation, one way repeated measures ANOVA and multiple regression) using SPSS 18 software program.

## Research Questions

The study examines the relationships among proficiency levels, reading comprehension and morphological awareness in three languages, namely L1 Kurdish, L2 Turkish and L3 English. Moreover, transferability of literacy skills gained in Turkish to Kurdish was an area of inquiry. Therefore, the following specific questions were formulated:

1. (How) does language proficiency relate to each other in L1, L2 and L3? More specifically;
a. Is there a relationship between L1 Kurdish proficiency and L2 Turkish proficiency?
b. Is there a relationship between L1 Kurdish proficiency and L3 English proficiency?
c. Is there a relationship between L2 Turkish proficiency and L3 English proficiency?
2. (How) does reading comprehension relate to each other in L1, L2 and L3? More specifically;
a. Is there a relationship between L1 Kurdish reading comprehension and L2 Turkish reading comprehension?
b. Is there a relationship between L1 Kurdish reading comprehension and L3 reading comprehension?
c. Is there a relationship between L2 Turkish reading comprehension and L3 reading comprehension?
3. (How) does morphological awareness relate to each other in L1, L2 and L3? More specifically;
a. Is there a relationship between L1 Kurdish morphological awareness and L2 Turkish morphological awareness?
b. Is there a relationship between L1 Kurdish morphological awareness and

L3 English morphologcial awareness?
c. Is there a relationship between L2 Turkish morphological awareness and L3 English morphological awareness?
4. (How) does language proficiency relate to reading comprehension in L1, L2 and L3? More specifically;
a. Is there a relationship between L1 Kurdish proficiency and L1 Kurdish reading comprehension?
b. Is there a relationship between L2 Turkish proficiency and L2 Turkish reading comprehension?
c. Is there a relationship between L3 English proficiency and L3 reading comprehension?
5. (How) does language proficiency relate to morphological awareness in L1, L2 and L3? More specifically;
a. Is there a relationship between L1 Kurdish proficiency and L1 Kurdish morphological awareness?
b. Is there a relationship between L2 Turkish proficiency and L2 Turkish morphological awareness?
c. Is there a relationship between L3 English proficiency and L3 morphological awareness?
6. (How) does morphological awareness relate to reading comprehension in L1, L2 and L3? More specifically;
a. Is there a relationship between L1 Kurdish morphological awareness and

L1 Kurdsih reading comprehension?
b. Is there a relationship between L2 Turkish morphological awareness and L2 Turkish reading comprehension?
c. Is there a relationship between L3 English morphological awareness and L3 English reading comprehension?
7. (How) does language proficiency and morphological awareness relate to reading comprehension in L1, L2 and L3? More specifically,
a. Is language proficiency or morphological awareness a better predictor of reading comprehension in a language?
b. Do language proficiency and morphological awareness in a language better predict reading comprehension in a language together?

## Research Hypotheses

1. The students with a higher level of Kurdish proficiency will achieve better proficiency levels in Turkish and English than those who have a lower level of proficiency in Kurdish.
2. The students with better scores in the reading comprehension in a language will obtain better scores in reading comprehension tests of other languages as well.
3. The students with better scores in morphological awareness in a language will obtain better scores in morphological awareness tests of other languages as well.
4. The students with a higher level of proficiency in one language will obtain better scores in the reading comprehension tests of that language.
5. The students with a higher level of proficiency in one language will obtain better scores in the morphological awareness tasks of that language.
6. The students with better scores in the morphological awareness task in a language will obtain better scores in the reading proficiency tasks of that language.
7. The students with higher proficiency levels and stronger morphological awareness skills in a language will obtain better scores in reading comprehension tests of that language.

## Procedure

Before data collection began, the researcher piloted each task with three students, who were Kurdish-Turkish bilingual learners of English in order to see any practical problems in the test items. In addition, each test was checked by teachers of Turkish, Kurdish and English to examine the appropriacy and difficulty levels of the tasks and to detect any methodological difficulties. Subsequent to piloting and teachers' feedback, some necessary changes regarding the order of questions, vocabulary choice of the texts, instructions of the question items were made.

Having received permission from the school principals and approval from the teachers and students in both schools, the students, who would participate in the study, were first given a background questionnaire and tests in groups in the classroom setting. In each testing session, the classroom teachers were present in the rooms in order to both make the students feel comfortable and to assist them in case they have any difficulties in understanding the questions and completing the questionnaire and tests. It was explained to the students that their answers will be kept confidential and will be used only for the purposes of this study.

According to the information obtained from the background information questionnaire, the students who were not meeting the desired characteristics (e.g., those who reported that they do not know Kurdish), were detected and not given further tasks. Then, the other students were given the proficiency tests, the reading
comprehension tests and finally the morphological awareness tests on separate days. The students were firstly given the Turkish tests followed by Kurdish tests and finally the tests in English. There were a total of twelve tests in each language and on each day two of them were given until all the tests were completed.

## Participants

The participants were 50 Kurdish-Turkish bilingual students (18 male; 32 female), who were at grade 8 (age range: 13-16 years old; mean age: 14) attending two different state primary schools in Van, a city located in the eastern Turkey and largely populated by Kurdish-speaking people. 28 of the participants were from a state school in the city center and 22 of them were attending a boarding school in Erciş, a district in the city of Van with a more heterogeneous linguistic situation with respect to the use of Turkish and Kurdish. All of the students were from families with low socio-economic status. Initially, a total of 61 students participated to the study, however 11 of them could not attend to at least two or more of the tests because they were not present during the sessions. Therefore, their results were eliminated from the study. For the data collection setting in the downtown Van, the 8th grade students from two different classes were combined and the tests were given to them as a group during the class time. In the same fashion, the students in Erciş were given the tests in group sessions over two week's period. The schools were randomly selected among other similar state primary schools, which strictly adhere to regulations and curricula set by the Ministry of Education. In terms of English education, they receive 4 hours of compulsory and 2 hours of elective English language courses per week. At the time of the data collection, they have been
learning English for five years. However, it has been reported that during these last five years, English instruction has been interrupted due to a shortage of teachers. Many of the teachers of English, as well as teachers of other branches, change schools in their first year of employment and this leads to interruption in English instruction as well as in general schooling experience of the students.

## Instrumentation

The instruments used in the present study included written tests in Kurdish, Turkish and English. As explained earlier, the students receive a literacy instruction only in Turkish and English, but not in Kurdish. Therefore, some changes were done in the Kurdish texts for the purpose of strengthing the instruments and to avoid unnecessary confusions. For example, the letter ' 1 ' of Turkish is coded as ' i ' in Kurdish and instead of the letter ' i ', the Kurdish alphabet uses ' $\hat{1}$ '. Therefore, the Turkish letter convention of writing ' 1 ' and ' $i$ ' were employed rather than the conventions of the written Kurdish in the current study. Moreover, using prepositions in colloquial Kurdish is optional and if it is compulsory in a phrase to use prepositions, they are liaisoned in certain phrases. On the other hand, the written Kurdish makes extensive use of prepositions even if they are not compulsory. Therefore, in the Kurdish texts when the use of a preposition was not compulsory, it was not used and if a liaison was more appropriate, prepositions were attached to the following words. After implementing the necessary changes on the texts, the participants were given the following tests:

## Background Information Questionnaire

Each participant was asked to complete a background questionnaire to obtain demographic and linguistic information about them. The background questionnaire, which was adapted from Baker (1996), aimed at gathering information about the participants and their patterns of language use, language preferences in certain domains such as reading books or magazines, watching TV and so on. They were also asked to self-rate their proficiency levels in Kurdish, Turkish and English to identify how they perceive their own linguistic capabilities in reading, writing, speaking, vocabulary knowledge, grammar, and overall language ability. The questionnaire was completed in classroom settings during class sessions in presence of the researcher and the teacher of English. The language of the questionnaire was Turkish because it was the primary language of instruction for the students.

## Proficiency Tests

Since language proficiency is a multi-faceted phenomenon, it is difficult (if not impossible) to evaluate all aspects of language proficiency and to obtain a precise proficiency level of an individual in a given language (Skutnabb-Kangas, 1984; Del Vecchio et al., 1995; Cummins, 2000a). Cummins (2000a) distinguishes between basic conversational and academic language proficiencies. As explained earlier, these two concepts are not opposing dimensions for Cummins, but rather they require different degrees of cognitive effort and contextual involvement. The type of proficiency required for the academic achievement in the school setting is academic language proficiency and it takes more time to develop (Cummins, 2000a).

Therefore, in the present study, the aim is to identify the students' formal/academic language proficiency levels in three languages to examine potential relations among them and to explore the interaction among language proficiency, morphological awareness and reading comprehension performances.

To be able to examine the cognitive-academic language proficiency of the participants in the three languages, two instruments were utilized instead of just one measure. Since no standardized language proficiency tests were available either in Kurdish or Turkish, a cloze test and a written picture description task were used to test students' proficiency levels. Using a cloze test to determine language proficiency in languages that do not have standardized proficiency tests is a common practice in the field of Applied Linguistics (Mũnoz; 2000).

To obtain an average proficiency score in a language, the scores obtained from a cloze test and picture description task were summed and the mean of the scores were regarded as the indicators of the students' language proficiencies in each of their languages. This procedure is used for each language. In other words, to have a proficiency score in each language, we analyzed the results of a cloze test and the picture description task. ${ }^{11}$ Besides accuracy in cloze tests and the picture description tasks, we also considered the participants' self-assessment about their language competence. Their assessment scores were also analyzed to see if the proficiency scores obtained in two measurements (i.e., the cloze test and the picture description task) correspond to their self-perceived language proficiencies in each language.

[^9]
## Cloze Tests

The first task used to measure language proficiency was the cloze test. This test normally consists of a text with certain words (every $\mathrm{n}^{\text {th }}$ word) removed and test takers are asked to fill in the blanks with morphosyntactically and semantically correct words. As noted earlier, cloze tests are widely used for measuring language proficiency in languages that do not have standardized proficiency measures or when the standardized tests may not be suitable for the specific group (e.g., Mũnoz, 2000; Hughes, 2003). Moreover, cloze tests are easy to construct and economical to administer and score (Oiler \& Conrad, 1971; Stubbs \& Tucker, 1974) and they are highly reliable (Oller \& Inal, 1971; Swain, Lapkin \& Barik, 1976) to measure language proficiency.

Normally there are two types of scores obtained for cloze tests: exact response and acceptable response. In the former, only the word in the original passage is considered as correct while in the latter, words having equivalent meaning of the exact response are also scored as correct. The acceptable response method was used in the current study. Following this path of reasoning, one cloze test for each language (three in total) was constructed to measure proficiency in Turkish, Kurdish and English.

All three of the passages were extracted from online sources on the internet and modified to a certain degree. It was made sure that they are appropriate both culturally and in terms of students' ages. The Kurdish story, entitled Mızgin lı Gund (Mizgin in the Village), is about the memories of a primary school girl in her grandmother's village. There are 228 words in total and every 7th word is deleted from the text. Thus, in total there are 30 blanks
(http://www.ciwano.com/archive/mizgin-li-gund-t20124.html) (see Appendix B for the Kurdish cloze test).

The Turkish story, entitled Yarall Güvercin (Injured Pigeon), which is an-age appropriate story of a boy finding an injured pigeon and his efforts to heal the pigeon. Overall, the text has 238 words and again every $7^{\text {th }}$ word is removed from the text, which resulted in 30 blanks in total (http://www.masal.biz/yaraliguvercin_232.html) (see Appendix C for the Turkish cloze test).

The English story is entitled Mary's Birthday and is about a school girl named Mary, who receives a birthday gift from her uncle. Some slight modifications were done in the original text in order to make it more meaningful for the students in the present study. The text had 222 words in it and as in other two cloze tests; every $7^{\text {th }}$ word is removed from the text, which resulted in 30 blanks in total (http://www.englishtime.us/learningenglish/reading/ReadingCloze.aspx?id=f39928e d-64f2-4860-abe1-56346eb4a43f) (see Appendix D for the English cloze test).

## Picture Description Task

Story telling/writing tasks based on picture description are commonly used in assessing oral or written language skills of L1 and L2 users (Berman \& Slobin, 1994; Hughes, 2003). These tasks are considered to be more valid and reliable than standardized tests especially with minority language children (Berman \& Slobin, 1994; Allen, Crago \& Pesco, 2006). They are also used as measurement tools of general academic proficiency. Kulatilake (2009) suggested that story writing is a good indicator of academic proficiency because it is cognitively challenging. On the other hand, Allen, Crago and Pesco (2006) suggest that a picture description task elicits aspects of both conversational and academic language proficiency. It reflects
conversational proficiency because the communication is contextually supported by the pictures in the story and therefore students can depend on the pictures to extract meaning out of the context. Nevertheless, it reflects academic language proficiency more because, as Allen Crago and Pesco (2006) note the participants have to "use language in abstract ways, such as establishing the relationship between events, foregrounding and backgrounding aspects of the story, providing cohesion through appropriate use of various forms of referring expression (e.g., noun phrases versus pronouns), analyzing the emotions and motivations of the protagonists, and evaluating the goal of the protagonists and the resolution of that goal" (pp.534). These factors cannot be openly seen from the context provided by the pictures by itself, and therefore the use of language is the main tool to make meaning out of the pictures. In fact, when the narratives are explored in details, the existence of a variety of distinct plot narrations and the use of different text organizations employing the same pictures can be observed. This supports the idea that picture description tasks are a good indicator of academic proficiency. Also, it has been noted that participants from various age groups and diverse cultural and linguistic backgrounds appear to enjoy picture description tasks and the practice of telling stories in relation to pictures is practiced in many cultures. Moreover, the data elicited through the picture story represents connected meaningful discourse, which allows for lexical, grammatical, and discourse analysis.

A wordless story consisting of twelve pictures depicting an event in a park was chosen for the picture description task. To obtain comparable results, the same pictures were used for written narrations in all three languages. The participants were asked to give a written description of the picture story. In other words, participants were given a colorful picture depicting a story and asked to write down a story based
on the pictures. Written narratives were collected by the researcher who is bilingual in Turkish and Kurdish. All participants were asked to write the stories in the classroom setting. They were asked to describe the pictures in Turkish, in Kurdish, and in English successively on separate days (see Appendix E for the picture description).

As for the analysis of written picture descriptions, the participants' narration in each language was scored twice on five different dimensions: content (30 points), organization (20 points), vocabulary (20 points), language (25 points) and mechanics (5 points). First, following Jacobs, Zingraf, Wormuth, Hartfiel and Hughey (1981), the researcher evaluated the written stories of the students in each language and gave scores based on the above-mentioned scoring criteria (see Appendix L for the Composition Scoring Rubric). Then, the Turkish and English descriptions were evaluated for the second time by a Turkish-English bilingual instructor of the English language. As for the Kurdish stories created by the participants, they were reevaluated by an instructor of Kurdish according to the same scoring scheme. When scores from both evaluation processes were compared no major differences were observed, however, where there were two divergent scores for the same story, the average of the both scores were accepted as the final score to achieve inter-rater reliability.

## Self Assessment

Self-assessment is different from the proficiency measures mentioned so far in that it enables students to reflect on their own proficiency levels. In contrast to the other proficiency measures used in this study, self-assessment tests are not used specifically to measure cognitive academic language proficiency. Through self-assessment, students were
asked to reflect on their linguistic competence in several areas of language such as reading, writing, vocabulary and so on. While the use of self-assessment of abilities or skills is very practical and easy to administer and score the validity and reliability of these tests is a matter of discussion. Therefore, the results of self-assessment tasks in the current study were not included in the final proficiency scores of the students but were only used to check whether they correspond to other proficiency measurement tools.

In the current study, a self-assessment task was given to the students as a sub-section of the Background Information Questionnaire. Participants evaluated their Kurdish, Turkish and English language skills based on a likert-scale with items ranging from "very well" to "not at all". The aim was to identify students' perceived proficiency in reading, writing, speaking, vocabulary, grammar and overall competence in each of the languages involved. Before giving the Background Information Questionnaire, the students were informed about the importance of providing correct information in order to achieve more accurate scores of self-assessments (see Appendix A for the self-assessment questions in the Background Information Questionnaire).

## Reading Comprehension Tests

Reading comprehension tasks were administered in all three languages. The participants were asked to read four short reading passages each followed by three comprehension questions (12 question in total) in each language. Two of the passages have expository formats while the other two are examples of narrative texts in each language. Three of the reading passages in English were taken from the Oxford Quick Placement Test (2001) and another one was selected from a simplified version of a short passage of the novel The Old Man and the Sea by Ernest

Hemingway. Two of the Turkish reading texts were selected from Turkish version of Wikipedia and two of the texts were selected from works of Turkish literature (one by Yaşar Kemal, Demirciler Çarşısı Cinayeti (Murder in the Ironsmiths Market) and the other by Orhan Kemal, Yaşlı Kadın (The Old Woman)). As for the Kurdish reading texts, again two of the passages were selected from Wikipedia, Kurdish version and the other two from works of Kurdish Literature (one by Erebê Şemo, Kêr $\hat{u}$ Çetel (Knife and Fork) and the other by Firat Cewerî, Kêzik $\hat{u}$ Mêrik (The Cockroach and the Man). Passages in all three languages have parallel formats and topics. The comprehension questions were formulated by the researcher in a multiple-choice format because the participants are already accustomed to solving tests of this type and these tests are a common device for testing students' reading comprehension. Alderson and Bachman (2000) suggest that multiple-choice questions allow test takers to control the range of possible answers to comprehension questions, and to some extent to control the students' thought process when responding. Also, they are reliable to score.

Special care has been shown to make sure that the reading passages are ageappropriate and suitable for the participating students' educational level. The range of vocabulary and grammatical structures were carefully adjusted to the level of students. Particularly the Kurdish texts were prepared considering the fact that there are different Kurdish dialects. All of the passages are authentic and they are considered to be of interest of the readers and they are not culturally laden.

The questions prepared for each reading task are representative of main and common question types used in most of the standardized tests such as Oxford Quick Placement Test and TOEFL. These question types are derived from research on a variety of abilities of good readers' exhibit (Brown, 2004). They are consistent with
strategies of effective reading abilities such as skimming for the main idea, scanning for details, guessing the meaning of words or phrases from the context, inferencing, using discourse markers and so on. The questions are just to measure reading ability, not any other ability such as specific grammar structures.

Data from reading comprehension tests in each language were collected in classroom sessions on different days over a two-week period. Before collecting the data, the participants were given clear instructions and only when the researcher felt sure that the task was understood by them, the actual tasks were administered.

## Morphological Awareness Tasks

In the current study, derivational morphology was chosen rather than inflectional morphology because it was believed that more research is needed to investigate the relationship between morphological awareness and reading comprehension (Carlisle, 2000).

In order to assess morphological awareness of participants in a language, sentence-based written tasks of derivation and decomposition were given. The Turkish morphological awareness task was developed by Eveyik-Aydın (2010), which was an adaptation of Carlisle (2000) and the English and Kurdish tasks were prepared by the researcher taking the Turkish task as model. All of the sentences used in each language are considered to be appropriate in terms of lexical and syntactic complexity as well as age and educational background of the students. For practical reasons, only derivational morphemes that make nouns and adjectives were chosen as target morphemes in each language. Derivation of lexical categories is a rich and common feature of Turkish and of English to a certain degree. On the other
hand, it can be argues that deriving words is a less common technique than compounding in Kurdish, yet both deriving and decomposition techniques can be easily observed especially in written Kurdish. Therefore, in parallel with the Turkish task of morphological awareness, corresponding categories were detected and sentences with similar suffixes (and prefixes where necessary) were formed to measure morphological awareness in Kurdish as well.

## Derivation Task

This task requires the participants to derive new word categories with a given affix. In this task, the students were given a base word such as $g \ddot{z}$ (eye) and asked to complete a sentence such as Dün kendime yeni bir $\qquad$ aldim (I bought myself new eye-glasses). The participants were expected to come up with the derived noun gözlük (eyeglasses) in this example. The derivation task for Turkish and English included 24 derived nouns (e.g., yazl 'writing', kitaplık 'bookshelf') and 24 derived adjectives (e.g., çalışkan 'hardworking', süpheci 'suspicious'), with a total of 48 target words for each language. Of twenty-four derived nouns and adjectives, 12 are derived from nouns while the other half is derived from verbs. Thus, 4 words are selected for each of 3 suffixes within each 4 categories. The same procedure was applied to the derivation task of Kurdish except for the Noun+Suffix=Adjective formula as a fourth suffix was included due to the lack of productive suffixes in Kurdish for that specific category.

## Decomposition Task

In the decomposition tasks, the participants were presented with a derived word (e.g., evsiz 'homeless') and asked to complete a sentence (Bu geniş bir $\qquad$ 'This is a large $\qquad$ ') using the appropriate base form (e.g., ev 'house'). The tasks were
developed following the criteria used in the development of derivation task. Thus, the decomposition tasks also included 48 different words (24 nouns-24 adjectives) derived from 12 suffixes used in the derivation task, with 4 words selected for each suffix. The sentences in each task were developed not to allow the use of inflected forms. Again for the Kurdish decomposition task, a fourth suffix was included this time to the Verb+Suffix=Adjective formula because of the productivity reasons.

Derivation and decomposition tasks in each language were given to the participants in classroom sessions on different days over a two-week time. Selections of words and sentences in each language was made on the basis of frequency, simplicity, and age-appropriateness. Before collecting data, the participants were given training about how to complete the task. When the researcher got sure that the task was understood by them, the actual tasks were administered. Only one of the participants was absent on the day when Kurdish morphological awareness task was given. Therefore, a Kurdish morphological awareness score could not be obtained from that participant, however, the participant's morphological awareness scores in Turkish and English were included in the final analysis (see Appendix I, J, and K for the morphological awareness tasks in Kurdish, Turkish and English, respectively).

## CHAPTER 4

## RESULTS

Introduction

This section reports the results of the present study. Firstly, demographic and linguistic information about the students are presented. Secondly, the descriptive results of the tests of proficiency, reading comprehension and morphological awareness are reported. The next section is devoted to the results of statistical analyses carried out to explore any potential relationships among different linguistic measures. The chapter ends with a summary of the research findings.

## Results of Background Information Questionnaire

The results of the background questionnaire reveal significant information about the students. Most of the students live in large families with at least 5 or 6 siblings. A majority of the students report that they have been living in Van since they were born. Almost in all cases, fathers either do not have a regular salary-based job or they are self-employed (serbest meslek) and mothers are housewives. Regarding the education level of their parents, majority of the students stated that fathers are either illiterate (not attended school at all) or they are graduates of 5-year basic education (ilkokul mezunи) and almost all mothers lack any form of formal education. All of
the students reported that the primary language that they learned is Kurdish and only two ${ }^{12}$ noted that they learned Kurdish and Turkish simultaneously.

According to the responses to the background questionnaire, the participants consider that they started to learn Kurdish at around age $2 ;{ }^{13}$ it was around 6 for Turkish; whereas it was around 10 for English. These responses suggest that the age of schooling, which is usually between 6 and 7 , is considered to be the beginning of a systematic Turkish acquisition. Also, the responses indicate that no one has ever attended to a private language course for Kurdish, Turkish or English.

## Language Contact

With a likert scale, the students were asked to rate the extent of their language use with various people in Kurdish and Turkish. Table 1 and 2 present the extent of their language contact in percentages.

[^10]Table 1. Participants' Language Use with Other People (in \%)

|  | Father | Mother | Elder <br> Siblings | Younger Siblings | School <br> Friends | Friends Outside School | Teachers | Playground Friends | Best <br> Friend | Neighbors | Relatives |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Always Kurdish | 37.5 | 46 | 4.8 | 4.7 | 4.1 | 2 | 2 | 4 | 14 | 30 | 26 |
| More in Kurdish | 14.6 | 18 | 14.3 | 23.3 | 0 | 14 | 0 | 14 | 10 | 32 | 28 |
| Kurdish/ <br> Turkish <br> Equally | 29.2 | 22 | 47.6 | 41.9 | 30.6 | 34 | 2 | 38 | 30 | 22 | 34 |
| More Turkish | 16.7 | 6 | 28.6 | 18.6 | 36.7 | 28 | 16 | 38 | 32 | 16 | 10 |
| Always <br> Turkish | 2.1 | 8 | 4.8 | 11.6 | 28.6 | 22 | 80 | 6 | 14 | 0 | 2 |

Note. The percentages indicate, for example, that overall participating students use Kurdish with their fathers $37.5 \%$ of the time within a day. $14.6 \%$ of the time, they mostly use Kurdish with their fathers but within this time there might be occasional use of Turkish. $29.2 \%$ of the time, their interaction with their fathers equally involved both Kurdish and Turkish. $16.7 \%$ of the exchanges involved mostly Turkish and finally only $2.1 \%$ of the exchanges with fathers took place Turkish only.

The responses reveal that they mostly use Kurdish while speaking to parents, relatives and neighbors. They tend to use Kurdish and Turkish equally or mostly Turkish with their friends in the school context and with their siblings and closest friends outside the school. On the other hand, almost all of them reported that they speak only in Turkish with their teachers.

Table 2. Language Other People Use with Participants (in \%)

|  | Father | Mother | Elder Siblings | Younger Siblings | School <br> Friends | Friends <br> Outside <br> School | Teachers | Playground Friends | Best <br> Friend | Neighbors | Relatives |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Always Kurdish | 43.8 | 46 | 2.4 | 6.8 | 0 | 0 | 0 | 2 | 8 | 30 | 32 |
| More in Kurdish | 18.8 | 26 | 21.4 | 25 | 6.1 | 22.9 | 0 | 16 | 20 | 30 | 30 |
| Kurdish/ <br> Turkish <br> Equally | 16.7 | 16 | 54.8 | 40.9 | 44.9 | 45.8 | 2 | 40 | 28 | 30 | 28 |
| More <br> Turkish | 18.8 | 10 | 14.3 | 9.1 | 28.6 | 12.5 | 18 | 28 | 22 | 4 | 4 |
| Always <br> Turkish | 2.1 | 2 | 7.1 | 18.2 | 20.4 | 18.8 | 80 | 14 | 22 | 6 | 6 |

When they were asked to rate various people's language choice for contact with them, mostly similar results were found. They reported that their mothers dominantly used Kurdish and teachers mostly used Turkish with them.

As for the domains of language use, the students were asked to rate their language contact with Kurdish and Turkish in occasions such as watching TV, religious prayer if they do, reading newspapers, magazines, books, listening to music and to radio, talking on the phone, in public transportation, during visits to relatives and interactions on religious holidays. The Table 3 presents the language use in percentages.

Table 3. Participants' Language Use in Various Social Occasions (in \%)

|  | Watching <br> TV/Vide <br> os | Religion/ <br> Praying | Reading <br> Newsp. <br> Comics, <br> Books | Listening <br> to Music | Listening <br> to <br> Radio | Shop <br> -ping | Playing <br> Sport | On <br> the <br> phone | On the <br> public <br> bus | Religious <br> holidays | Visits to <br> Relatives |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Always <br> Kurdish | 4 | 17.4 | 0 | 6.1 | 2 | 2 | 12 | 4.2 | 4 | 22 | 30 |
| More in <br> Kurdish | 4 | 28.3 | 2 | 16.3 | 14 | 2 | 10 | 2 | 6 | 14 | 12 |
| Kurdish/ <br> Turkish <br> Equally | 42 | 10.9 | 8 | 28.6 | 28 | 42 | 42 | 62.5 | 26 | 36 | 38 |
| More <br> Turkish | 34 | 17.4 | 26 | 16.3 | 26 | 16 | 20 | 10.4 | 26 | 14 | 12 |
| Always <br> Turkish | 16 | 26.1 | 64 | 32.7 | 30 | 38 | 16 | 20.8 | 38 | 14 | 8 |

The results demonstrate that they use both languages in most occasions but with regard to reading newspapers, magazines and books, they primarily use Turkish. Visits to relatives and interactions on religious holidays were the domains they used more Kurdish than Turkish.

Based on the overall results from language contact situations and occasions of language use, it was found that more than half of the students (56\%) use both Kurdish and Turkish almost equally in daily interactions; that a quarter of them
(26\%) use Turkish more than Kurdish and; that less than a quarter of them (18\%) use mostly Kurdish in their everyday life.

## Self-Assessment

The students were also asked to rate (from 1 to 5 ) their perceived linguistic abilities in each language in areas such as reading, speaking, writing, vocabulary, grammar and overall. The Table 4 shows the results.

Table 4. Self-Assessment Scores across Skills in each Language

|  | Mean Scores |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reading | Writing | Speaking | Vocabulary | Grammar | Overall | Mean |  |
| Kurdish | 3.30 | 2.64 | 4.18 | 3.36 | 3.40 | 3.76 | 3.44 |  |
| Turkish | 4.74 | 4.84 | 4.60 | 4.42 | 4.42 | 4.54 | 4.59 |  |
| English | 3.12 | 3.38 | 3.00 | 3.08 | 3.06 | 3.06 | 3.12 |  |

Note: The mean of each category was based on a 5-Likert scale with 5 as "Very well" and 1 as "Not at all".

They perceive their Turkish to be most advanced in all areas (writing and reading being the most advanced areas). On the other hand, although there are differences between their rates for Kurdish and English, they seem to assume that their language skills in Kurdish and English are similar in general. They rated that their speaking ability in Kurdish to be better than their other skills in Kurdish and writing was rated the weakest area. As for English, they think that their speaking skills are the worst and writing skills are the best among the other skills in English.

## Descriptive Statistics of the Tests Results

Recall that the students were given two proficiency measures (a cloze test and a written picture description), a reading comprehension test, as well as a morphological awareness test in all three languages. Table 5 presents the descriptive statistics of these tests. The high SD scores indicate that the data are spread out over a large range of values across the tests and languages.

Table 5. Descriptive Statistics of the Tests Results across the Languages

| Participants <br> N=50 | Overall Proficiency |  |  | Reading Comprehension |  |  | Morphological Awareness |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | Range | Mean | SD | Range | Mean | SD | Range |
| Kurdish | 54.81 | 12.91 | $29-84$ | 58.17 | 21.91 | $17-100$ | 36.35 | 18.88 | $4-79$ |
| Turkish | 72.76 | 12.98 | $30-95$ | 61.33 | 21.21 | $17-100$ | 84.83 | 12.13 | $57-99$ |
| English | 22.77 | 11.44 | $3-57$ | 36.83 | 20 | $0-83$ | 24.79 | 12.86 | $2-56$ |

Note. The overall proficiency score is the average of the cloze test and the written picture description scores

The scores show that the students received the highest scores in all of the Turkish tests. This is followed by the scores obtained in Kurdish tests. In all of the tests, the students received significantly lower scores in English tests. Particularly in the tests of language proficiency and morphological awareness, this was more obvious. On the other hand, the participants' reading comprehension scores in Kurdish and Turkish were close in terms of the mean, minimum and maximum scores as well as the standard deviation values. The students' Turkish morphological awareness task scores almost tripled their scores in Kurdish and English.

Furthermore, the students were grouped according to their mean scores in proficiency levels obtained in three languages. The students who were above the mean were classified as competent in that language whereas those who were below the mean were classified as having a low competence in the language concerned. As
a result, three linguistic groups, namely competent in three languages, competent in one or two languages and not competent in any of the languages, were obtained.

Table 6 shows the test results obtained in proficiency, reading comprehension and morphological awareness measures in each language for each of the three linguistic groups.

Table 6. Mean Test Scores of Three Linguistic Groups (in \%)

|  |  | Proficiency |  |  | Reading Comprehension |  |  | Morphological Awareness |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Kurdish | Turkish | English | Kurdish | Turkish | English | Kurdish | Turkish | English |
| $\begin{aligned} & \hline \text { High in } 3 \\ & \mathrm{~N}=7 \\ & \%=14 \end{aligned}$ | Mean | 76 | 90 | 43 | 83 | 90 | 62 | 67 | 96 | 39 |
|  | SD | 6 | 4 | 9 | 19 | 13 | 21 | 9 | 2 | 15 |
|  | Range | 69-84 | 84-95 | 3-57 | 50-100 | 67-100 | 17-83 | 52-79 | 93-99 | 18-56 |
| $\begin{aligned} & \text { High in } 1 \\ & \text { or 2 } \\ & \mathrm{N}=25 \\ & \%=50 \end{aligned}$ | Mean | 55 | 77 | 21 | 60 | 64 | 38 | 35 | 88 | 25 |
|  | SD | 9 | 8 | 8 | 22 | 16 | 18 | 17 | 10 | 13 |
|  | Range | 32-69 | 58-88 | 3-36 | 17-100 | 33-100 | 8-75 | 6-67 | 59-97 | 4-54 |
| $\begin{aligned} & \text { Low in } 3 \\ & \mathrm{~N}=18 \\ & \%=36 \end{aligned}$ | Mean | 44 | 62 | 19 | 47 | 48 | 25 | 28 | 78 | 23 |
|  | SD | 7 | 11 | 7 | 12 | 18 | 13 | 13 | 21 | 8 |
|  | Range | 29-56 | 30-74 | 3-28 | 25-67 | 17-75 | 0-42 | 4-47 | 57-94 | 2-38 |

Note. The second group, High in 1 or 2, means that the students obtained scores above mean either only in Turkish or Kurdish, or both in Turkish and Kurdish.

Table 6 shows that the students who obtained scores above mean in language proficiency tests in all three languages also obtained significantly higher scores in reading comprehension and morphological awareness tests in these languages. Conversely, the students who were below mean scores in language proficiency tests in all of the languages obtained the lowest scores in reading comprehension and morphological awareness tests in all three languages. On the other hand, the students who obtained scores above mean in Kurdish and Turkish, performed worse than the first group, those who were above mean in all three languages, but better than the third group, those who were below mean scores language proficiency tests of all the languages involved. The point of the comparison here is that there is no student who
is found to have low proficiency in all languages but do better in terms of reading comprehension and morphological awareness.

## The Results of Statistical Analyses

The objective of this study was to investigate the interdependence of languages in terms of proficiency, reading comprehension, and morphological awareness across L1 Kurdish, L2 Turkish and L3 English. Firstly, one way repeated measures ANOVA technique and Pearson Correlation Coefficients were used to see if there were significant correlations among these variables. Relevant variables were then used to conduct a series of multiple regression analyses to examine if predictor variables could explain the variance of outcome variables in each hypothesis.

## Proficiency Tests

Firstly, the participants' proficiency scores in Kurdish, Turkish and English were analyzed using a one-way repeated measure ANOVA (see Appendix M). The Mauchly's Test of Sphericity indicated that the assumptions were met. The results of ANOVA analysis showed a significant effect for proficiency $(\mathrm{F}(1,50)=534.85$, $\mathrm{p}<.01$ ), which means that the proficiency scores of three languages obtained are significantly different. Post hoc analyses also showed that proficiency scores in three languages are significantly different from one another (all p< .01).

The correlations among the three proficiency scores of the participants were also examined (see Appendix N). The results showed that the participants' Kurdish proficiency scores significantly correlated with both their Turkish proficiency scores
( $\mathrm{r}=.734, \mathrm{p}<.05$ ) and English proficiency scores ( $\mathrm{r}=.596, \mathrm{p}<.05$ ). Moreover, Turkish proficiency scores significantly correlated with English proficiency scores (r= .507, $\mathrm{p}<.05$ ). This suggests that there is a strong positive relationship among these three variables.

To be able to understand the individual contribution of the proficiency level attained in one language to that of another language, multiple regression analyses were carried out. Since a dynamic interplay among proficiency levels in each language was expected, all three languages were treated as both outcome and predictor variables in three separate regression equations. Each predictor variable was entered into the regression equation in a forced entry fashion to see if it accounted for a significant proportion of variance in the outcome variable at the $\alpha<$ . 05 level. The results of ANOVA tables of regression equations in each case showed that the models were tenable (all $\mathrm{p}<.05$ ). Moreover, the adjusted $\mathrm{R}^{2}$ values in each conduct suggested that our models can be generalized to the population and the cross-validity of the models is very good.

As a first step, the Kurdish proficiency was entered into the regression equation as an outcome variable and the proficiency in Turkish and English were chosen as predictors of Kurdish proficiency. The results showed that the proficiency scores of Turkish and English together accounted for $61 \%$ of the all variance in Kurdish proficiency $\left(\mathrm{R}^{2}=.606, \mathrm{p}<.01\right)$. However, the coefficients results indicated that Turkish proficiency is the first explanatory variable of Kurdish proficiency ( $\beta=$ $.581, \mathrm{p}<.01)$ and English proficiency is the second $(\beta=.301, \mathrm{p}<.01)$. It appears that while the contribution of both languages is significant, the impact of English proficiency on the total variance in Kurdish proficiency is less compared to the effect of Turkish proficiency.

As a second step, the Turkish proficiency was entered into the analysis as an outcome variable and Kurdish and English proficiency were specified as predictor variables in the regression equation. The results indicated that both of the predictor variables together accounted for $55 \%$ of the variance $\left(R^{2}=.546, \mathrm{p}<.01\right)$. However, the standardized beta values for the Kurdish proficiency is $\beta=669, \mathrm{p}<.01$ and for the English proficiency is $\beta=108, p>.05$. This tells us that the Kurdish proficiency has a considerable impact on the Turkish proficiency, whereas the English proficiency is not a significant predictor of the Turkish proficiency.

Lastly, English proficiency was entered into the regression equation as an outcome variable while the scores of Kurdish and Turkish proficiency were specified as the predictor variables. The predictor variables accounted for the $37 \%$ of all variance $\left(\mathrm{R}^{2}=.366, \mathrm{p}<.01\right)$. Yet, the standardized beta values showed that the Kurdish proficiency $(\beta=.485, \mathrm{p}<.01)$ was a more significant predictor of the English proficiency compared to the impact of the Turkish proficiency, which did not account for significant amount of variance ( $\beta=.151, \mathrm{p}>.05$ ).

## Reading Comprehension and Language Proficiency

To determine the relationship of reading comprehension across languages and their relationship with associated language proficiencies, a series of analyses were conducted. We firstly analyzed the participants' reading comprehension scores in Kurdish, Turkish and English using one way repeated measures ANOVA (see Appendix O). The Mauchly's Test of Sphericity indicated that the assumptions were met. The results of the ANOVA showed that there is a significant effect for reading
comprehension $(\mathrm{F}(1,50)=51.993, \mathrm{p}<.01)$, which means that the reading comprehension scores of three languages obtained are significantly different from one another. Post hoc analysis displayed that the participants' reading comprehension scores in Kurdish are not significantly different from their reading comprehension scores in Turkish ( $\mathrm{p}>.01$ ). Yet, both reading scores of Kurdish and Turkish were significantly different from English reading scores (p<.01).

When the correlations among the reading comprehension scores of the participants in three languages were examined, a positive significant correlation found in each case (see Appendix P). The results showed that the participants' Kurdish reading comprehension scores significantly correlated with both their Turkish reading comprehension scores ( $\mathrm{r}=.623, \mathrm{p}<.01$ ) and English proficiency scores ( $\mathrm{r}=.597, \mathrm{p}<.01$ ). Moreover, Turkish proficiency scores are significantly correlated with English proficiency scores ( $\mathrm{r}=.631, \mathrm{p}<.01$ ). This suggests that there is a strong positive relationship among these three variables.

To be able to understand the extent of the impact of reading comprehension in one language on reading comprehension in another language, two multiple regression analyses were carried out. Firstly, again as a dynamic interplay among reading comprehension scores in each language was anticipated, reading comprehension scores in all three languages were treated as both outcome and predictor variables in three separate regression equations. Then a second regression analysis was conducted this time adding language proficiency as a predictor variable to see if it accounts for a higher amount of variance on outcome variable in each case. In order to be cautious about multi-collinearity and normal dispersion, the assumptions in both of the regressions were checked. The Tolerance and VIF values indicated that there is no possibility of multi-collinearity since Tolerance values were
not below .01 and all VIF values were below 10. Moreover, the scatterplot and histogram results indicated that there is no major deviation from normality. The result of ANOVA tables of the regression equations in each case showed that the models were tenable (all p<.05), except for one model in English reading comprehension, which was treated and reported accordingly.

Firstly, the participants' reading comprehension scores in Kurdish were entered into the regression equation as the outcome variable while their scores of reading comprehension in both Turkish and English were specified as predictor variables. The initial results suggested that both of the predictor variables accounted for the $46 \%$ of the total variance $\left(\mathrm{R}^{2}=.457, \mathrm{p}<.01\right)$. The coefficients table showed that both the Turkish reading comprehension ( $\beta=.409, \mathrm{p}<.05$ ) and the English reading comprehension ( $\beta=.340, \mathrm{p}<.05$ ) contributed to Kurdish reading comprehension. However, the contribution of Turkish reading comprehension was more significant. On the other hand, when we entered the Kurdish proficiency as another predictor variable, the results showed that the three predictors accounted for $52 \%$ of all the variance. The standardized beta values ( $\beta$ ) for Kurdish proficiency is $.410, \mathrm{p}<.05$ and for Turkish reading comprehension is $.358, \mathrm{p}<.05$, and lastly for English reading comprehension is .257 , p>.05. This tells us that, when including Kurdish proficiency to the equation, both Kurdish proficiency and Turkish reading comprehension has a considerable impact on Kurdish reading comprehension, but any significant effect for English reading comprehension was not found. The $F$ ratio $(\mathrm{F}=33,542)$ indicates that the final model significantly improves our ability to predict the outcome variable. In other words, it means that the effect of predictor variables is not by chance.

Secondly, the participants' reading comprehension in Turkish was put into the equation as an outcome variable in order to investigate its relationship with reading comprehension in Kurdish and English respectively. The results indicated that both of the predictors accounted for $49 \%$ of all the variance $\left(\mathrm{R}^{2}=.492, \mathrm{p}<.01\right)$. The coefficients results showed that both the Kurdish reading comprehension ( $\beta=.383$, $\mathrm{p}<$ .05 ) and the English reading comprehension ( $\beta=.402, \mathrm{p}<.05$ ) contributed almost evenly to the overall variation in the outcome variable. On the other hand, when Turkish proficiency was entered into the equation as another predictor, the results showed that the model accounted for the $64 \%$ of all variance $\left(\mathrm{R}^{2}=.637, \mathrm{p}<.01\right)$. The standardized beta values showed Turkish proficiency ( $\beta=.439, \mathrm{p}<.01$ ) was the most significant predictor of the Turkish reading comprehension followed by English reading comprehension as the second strong predictor ( $\beta=.340, \mathrm{p}<.05$ ), whereas the Kurdish reading was not a significant predictor of the outcome variable ( $\beta=.207$, $\mathrm{p}>.05$ ). This tells us that Turkish proficiency is the primary predictor of Turkish reading comprehension while English reading comprehension could also have an effect, whereas such impact was not found for Kurdish reading comprehension.

As a final step of the interaction among reading comprehension scores and proficiency scores across languages, we first analyzed the participants' English reading comprehension scores in relation to their reading scores in Kurdish and Turkish, then we added English proficiency in the second regression equation. The initial results showed that the reading comprehension in Kurdish and Turkish accounted for the $47 \%$ of all the variance in English reading comprehension $\left(\mathrm{R}^{2}=\right.$ $.466, \mathrm{p}<.01)$. The beta values showed that Turkish reading comprehension was a more significant predictor of the outcome variable ( $\beta=.422$, $\mathrm{p}<.05$ ), while the Kurdish reading comprehension was also a significant predictor ( $\beta=.334, \mathrm{p}<.05$ ). As
for the contribution of English proficiency to the overall variance in the English reading comprehension, the results showed that the new regression was only slightly better with an increase of $2 \%$ at predicting the outcome variable. The standardized beta values of the new equation showed that English proficiency was not a significant predictor of English reading comprehension ( $\beta=.176, \mathrm{p}>.05$ ).

Overall, the results suggest that both Turkish reading comprehension and the Kurdish reading comprehension were better predictors of English reading comprehension than English proficiency, but another 53\% of variance still needs an explanation.

## Morphological Awareness and Language Proficiency

One of the hypotheses of the research concerned with the interplay among the participants' morphological awareness scores across their three languages and its relationship with language proficiency. To investigate the hypotheses, firstly, a correlation matrix was extracted to see possible relationships among the variables (see Appendix Q). The correlation results showed that Kurdish morphological awareness scores of the participants were moderately correlated with their Turkish morphological awareness scores $(\mathrm{r}=395, \mathrm{p}<.01)$ and with English morphological awareness scores ( $\mathrm{r}=373, \mathrm{p}<.01$ ). Likewise, their Turkish morphological awareness scores moderately correlated with English morphological awareness scores (r=441, $\mathrm{p}<.01)$. As for the correlations between proficiency scores and morphological awareness, the results showed that there is a strong positive correlation between Kurdish proficiency and Kurdish morphological awareness ( $\mathrm{r}=612, \mathrm{p}<.01$ ); between Turkish proficiency and Turkish morphological awareness (r=697, p<.01); and
finally between English proficiency and English morphological awareness (r=520, $\mathrm{p}<.01$ ).

Then, in order to check if the participants' scores in each morphological awareness task were significantly different, we used a one-way repeated measure ANOVA (see Appendix R). Mauchly's test value ( $\chi^{2}=.30, \mathrm{p}<.05$ ) indicated that the assumption of sphericity had been violated for the main effect of morphological awareness scores. Therefore, degrees of freedom were corrected using GreenhouseGeisser estimates of sphericity $(\varepsilon=.878)$ for the main effect of morphological awareness scores. The ANOVA table showed that the means of the groups were significantly different ( $\mathrm{p}=.000$ ). Moreover, the pairwise comparisons (post hoc) showed that the significant main effect reflects significant differences (all $\mathrm{p}<.01$ ) between morphological awareness scores of Kurdish and Turkish (neutral), between Kurdish and English (neutral), and between Turkish and English (neutral).

As a next step, multiple regression analyses were conducted following the same reasoning used in the discussions of proficiency and reading comprehension. In order to be cautious about multi-collinearity, the assumptions were checked. The Tolerance and VIF values indicated that there is no possibility of multi-collinearity since Tolerance values were not below . 01 and all VIF values were below 10 . Moreover, the scatterplot and histogram results indicated that there is no major deviation from normality. Also the ANOVA tables of the regression equations showed the model summaries were powerful to make predictions in each case.

In a subsequent analysis, firstly, Kurdish morphological awareness was entered to the regression equation as outcome variables while scores of Turkish morphological awareness and English morphological awareness were specified as
predictor variables. The model summary showed that both of the predictors together accounted for only $21 \%$ of the total variance $\left(R^{2}=.205, p<.05\right)$. Similarly, the coefficients table showed that the morphological awareness scores of neither Turkish nor English were significant predictors of Kurdish morphological awareness ( $\beta$ $=.286, \mathrm{p}>.05$ and $\beta=.247, \mathrm{p}>.05$, respectively). However, when the proficiency scores of Kurdish were entered as another predictor of the equation, the results showed that strength of the model rose to $40 \%$ to explain the total variance. Moreover, the coefficients table showed that the Kurdish proficiency was the most significant predictor of Kurdish morphological awareness ( $\beta=.527$, $\mathrm{p}<.01$ ) whereas the other two predictors were highly insignificant in contributing to the model ( $\beta$ $=.060, p>.05$ and $\beta=.134, p>.05$ respectively). In other words, Kurdish proficiency accounted for the $38 \%$ of the total variance $\left(\mathrm{R}^{2}=.375, \mathrm{p}<.05\right)$, while the other two predictors only accounted for an additional $2 \%$ percent.

Similarly, when the participants' Turkish morphological awareness scores were analyzed in relation to their morphological awareness scores in Kurdish and English, the model showed that both of the predictors accounted only for $27 \%$ of the total variance $\left(\mathrm{R}^{2}=.256, \mathrm{p}<.01\right)$. The coefficients table showed that English morphological awareness could only slightly account for the overall variance ( $\beta$ $=.342, \mathrm{p}<.05$ ), whereas Kurdish morphological awareness was not a significant predictor ( $\beta=.267, \mathrm{p}>.05$ ). However, when the Turkish proficiency was added to the equation, the new model accounted for the $50 \%$ of the total variance $\left(R^{2}=.504, \mathrm{p}<\right.$ $.01)$. The results showed that Turkish proficiency was the primary predictor of the total variance $\left(\mathrm{R}^{2}=.475, \mathrm{p}<.05\right)$, however, neither English morphological awareness nor Kurdish morphological awareness scores could successfully predict total
variance in Turkish morphological awareness $\left(\mathrm{R}^{2}=.024\right.$, $\mathrm{p}>.05$. and $\mathrm{R}^{2}=.005, \mathrm{p}>=$ .05. respectively).

Lastly, English morphological awareness scores of the participants were analyzed in order to determine its relationship with the students' morphological awareness scores of Turkish and Kurdish and with their English proficiency scores. The initial results were in line with the previous models that both of the initial predictors accounted for only $24 \%$ of the total variance $\left(\mathrm{R}^{2}=.242, \mathrm{p}<.05\right)$. Likewise, the coefficients table showed that Turkish morphological awareness could only slightly account for the overall variance $(\beta=.349, \mathrm{p}<.05$ ) whereas Kurdish morphological awareness was not a significant predictor ( $\beta=.235, \mathrm{p}>.05$ ). On the other hand, when the English proficiency was added to the equation, the new model accounted for the $37 \%$ of the total variance $\left(\mathrm{R}^{2}=.365, \mathrm{p}<.01\right)$. The standardized beta values showed that English proficiency was the primary predictor of the total variance ( $\beta=.431, \mathrm{p}<.05$ ), followed by a slight contribution of Turkish morphological awareness ( $\beta=.289, \mathrm{p}<.05$ ) whereas no significant effect was found for Kurdish morphological awareness ( $\beta=.014, p>.05$ )

To sum up, the participants' language proficiency scores in one language was the primary predictor of morphological awareness in that language. However, morphological awareness in one language either could not predict morphological awareness in another language or only slightly did.

# The Interplay among Reading Comprehension, Language Proficiency and Morphological Awareness 

As a final step of the multiple regression analyses, the participants' reading comprehension scores were examined to determine the contribution of language proficiency, reading comprehension in their other languages and finally their morphological awareness. The correlation results showed that there is significant correlation between the Kurdish reading comprehension and the Kurdish morphological awareness scores $(\mathrm{r}=456, \mathrm{p}<.01)$ and between the Turkish reading comprehension and the Turkish morphological awareness scores ( $\mathrm{r}=537, \mathrm{p}<.01$ ). However, the same significant correlation was not observed for scores of the reading comprehension and morphological awareness in English (r=246, p> .01) (see Appendix S).

As for the correlations between the proficiency scores and the reading comprehension, the results showed that there is a strong positive correlation between Kurdish proficiency and Kurdish reading comprehension (r=641, $\mathrm{p}<.01$ ), and between Turkish proficiency and Turkish reading comprehension ( $\mathrm{r}=669$, $\mathrm{p}<.01$ ); yet no significant correlation was observed between English proficiency and English reading comprehension ( $\mathrm{r}=226, \mathrm{p}>.05$ ).

After examining correlations among the variables, the participants' reading comprehensions scores were entered to the regression equation as outcome variable in each conduct and their proficiency scores, reading comprehension scores in other languages and morphological awareness scores were specified as predictor variables. Normality and multi-collinearity assumptions were checked via scatterplot, histogram and Tolerance and VIF values.

Firstly, the participants' Kurdish reading comprehension scores were analyzed in relation to their Kurdish proficiency, reading comprehension in Turkish and English and Kurdish morphological awareness. The ANOVA table of the regression equation showed that the summary model was powerful enough to check predictions ( $\mathrm{F}=27,914, \mathrm{p}<.01$ ). The model summary results showed that Kurdish proficiency could account for $37 \%$ of the total variance $\left(\mathrm{R}^{2}=.373\right.$, $\left.\mathrm{p}<.05\right)$ while Turkish reading comprehension could slightly contribute to the total variance $\left(\mathrm{R}^{2}=.076, \mathrm{p}<.05\right)$. On the other hand, English reading comprehension scores and morphological awareness in Kurdish were not reliable predictors of Kurdish reading comprehension $\left(\mathrm{R}^{2}=.038, \mathrm{p}>.05\right.$ and $\mathrm{R}^{2}=.004, \mathrm{p}>.05$ respectively). Yet, all four predictors accounted for $49 \%$ of the overall variance $\left(\mathrm{R}^{2}=.490, \mathrm{p}<.05\right)$. The coefficients table also showed that the Kurdish proficiency is the most reliable predictor of the Kurdish reading comprehension ( $\beta=.610, \mathrm{p}<.05$ ), whereas beta values for all the other variables were non-significant (all p> .05).

Then, the participants' Turkish reading comprehension scores were looked into in order to investigate its relationship with the Turkish proficiency, reading comprehension in English and Kurdish and the Turkish morphological awareness. The ANOVA table of the regression equation showed that the summary model could safely predict the relationships ( $\mathrm{F}=38,828, \mathrm{p}<.01$ ). The model summary results showed that Turkish proficiency was the primary predictor of the total variance $\left(\mathrm{R}^{2}=.447, \mathrm{p}<.05\right)$ while English reading comprehension could predict $16 \%$ of the total variance $\left(\mathrm{R}^{2}=.165, \mathrm{p}<.05\right)$. In contrast, Kurdish reading scores and morphological awareness in Turkish were not reliable predictors of Turkish reading comprehension $\left(\mathrm{R}^{2}=.024, \mathrm{p}>.05\right.$ and $\mathrm{R}^{2}=.010, \mathrm{p}>.05$ respectively). Yet, all four predictors together accounted for $65 \%$ of the overall variance $\left(R^{2}=.647, p<.05\right)$. The
coefficients table also showed that Turkish proficiency is the most reliable predictor of Turkish reading comprehension ( $\beta=.501, \mathrm{p}<.05$ ), followed by English reading comprehension as a secondary predictor ( $\beta=.440, \mathrm{p}<.05$ ), whereas beta values for the other two variables were not significant (all p> .05).

Finally, English reading comprehension scores of the participants' were analyzed to see its relationship with the English proficiency, reading comprehension in Turkish and Kurdish and English morphological awareness. The ANOVA table of the regression equation showed that the summary model could safely predict the relationships $(\mathrm{F}=31,697, \mathrm{p}<.01)$. The model summary results showed that Turkish reading comprehension was the primary predictor of the total variance $\left(\mathrm{R}^{2}=.398, \mathrm{p}<\right.$ .05) while the Kurdish reading comprehension could predict $7 \%$ of the total variance $\left(\mathrm{R}^{2}=.068, \mathrm{p}<.05\right)$. However, neither the English proficiency scores nor morphological awareness in English were significant predictors of English reading comprehension ( $\mathrm{R}^{2}=.040$, $\mathrm{p}>.05$ and $\mathrm{R}^{2}=.004$, $\mathrm{p}>.05$ respectively). Yet, all four predictors accounted for $51 \%$ of the overall variance $\left(\mathrm{R}^{2}=.510, \mathrm{p}<.05\right)$. The coefficients table also showed that Turkish reading comprehension is a better predictor of English reading comprehension ( $\beta=.422$, $p<.05$ ), than Kurdish reading comprehension ( $\beta=.334$, $\mathrm{p}<.05$ ), yet beta values for English proficiency and English morphological awareness scores were not significant predictors of English reading comprehension (both $\mathrm{p}>.05$ ).

## Summary of the Results

In light of the research questions, the results of the study can be summarized as follows:

1) There was a strong positive correlation among language proficiency scores of the participants in Kurdish, Turkish and English. The regression analyses showed that both Turkish proficiency and English proficiency were significant predictors of Kurdish proficiency, but Turkish proficiency was a better predictor for proficiency in Kurdish. Similarly, Kurdish proficiency, but not English proficiency, was a strong predictor of Turkish proficiency. As for the case of English proficiency, the results of regression analyses showed that Kurdish was a more significant predictor of the English proficiency compared to the Turkish proficiency, which did not account for significant amount of variance.
2) The second research question was concerned with the reading comprehension of the participants across three languages. The correlation results showed that there was a strong positive correlation among reading comprehension scores of the participants in Kurdish, Turkish and English. The regression analyses showed that both Turkish reading comprehension and English reading comprehension contributed to Kurdish reading comprehension of the participants, however the impact of Turkish reading comprehension was importantly more significant. Similarly, both Kurdish reading comprehension and English reading comprehension were almost equally significant predictors of Turkish reading comprehension. And finally, both Turkish reading comprehension and Kurdish reading comprehension were found to be significant predictors of English reading comprehension, while Turkish reading comprehension was a better predictor.
3) The third research question intended to examine the relationship of morphological awareness across Kurdish, Turkish and English. The correlation results showed only moderate relationship among the morphological awareness scores in Kurdish, Turkish and English. Likewise, the regression analyses revealed that although statistically significant, morphological awareness scores of the participants in two languages together could only moderately predict the morphological awareness scores in their other language. This was true in all three languages.
4) The forth question sought to study the relationship between language proficiency and reading comprehension. Kurdish language proficiency and Turkish language proficiency were found to be the most important predictor of reading comprehension in these languages, respectively. However, the same was not true for English language proficiency which was not a significant predictor of English reading comprehension.
5) Similarly, the fifth research question examined the relationship between morphological awareness and language proficiency in languages involved. The regression analyses showed that in all three languages, proficiency in a language was the most important predictor of the morphological awareness in that language.
6) The sixth research question was concerned with the relationship of morphological awareness and reading comprehension. Contrary to the research hypothesis concerning and the relevant research, the current research failed to find a direct strong relationship between morphological awareness and reading comprehension in a ny of the languages involved. In other words, morphological
awareness in a language was not found to be a significant predictor of reading comprehension in that language.
7) Finally, the interplay among reading comprehension, language proficiency and morphological awareness was examined in relation to their contribution to reading comprehension in a language. The regression analyses showed that language proficiency was the most important predictor of reading comprehension in the cases of Kurdish and Turkish, but the same was not true for English reading comprehension. Likewise, reading comprehension in two of the languages was generally found to be important predictor of reading comprehension in the participants' other language.

## CHAPTER 5

## DISCUSSION

## Introduction

The present study explored the interaction of three languages (i.e., Kurdish, Turkish and English) with one another in terms of language proficiency, reading comprehension and morphological awareness of primary school L1 Kurdishspeaking students to identify the students' linguistic characteristic and possible language-related problems experienced by these students in L2 Turkish and L3 English.

Data were gathered through multiple instruments. First of all, the characteristics of participants were examined in relation to their language use in daily interactions both in and outside of the school, as well as within the family and outside home through a background questionnaire. Their language proficiency, reading comprehension and morphological awareness were assessed via tests developed in Kurdish, Turkish and English. The results of the background questionnaire indicated that the primary language of communication between the students and their parents is, by and large, Kurdish and the majority of the students reported that they actively use both Kurdish and Turkish in everyday communication with their peers and in most social occasions. However, a closer examination of the results of language questionnaire reveals that the participants usually use more Kurdish while speaking to older speakers (e.g., parents, relatives) and more Turkish with younger generations (e.g., younger brothers, friends). These findings are
generally in line with the previous observation (Öpengin, 2009), which investigated intergenerational language use patterns and contact among Kurds in three linguistic contexts in Turkey. Yet still, although the school program and teaching curricula consider a monolingual educational system by focusing merely on the development of Turkish, it is clearly seen from the data that these students are Kurdish-Turkish bilinguals, who are exposed to both languages in almost all social occasions, including the school setting.

The descriptive statistics of the results of language proficiency, reading comprehension and morphological awareness tests showed discrepancies in three languages. It is almost no surprise that the students performed better in all Turkish tasks compared to Kurdish and English tasks. In conformity with the data, their selfassessment scores also showed the same pattern. This can be easily understood from the fact that Turkish is the language of formal instruction and of interaction in their schooling setting. In their regular school curricula, they are required to read, write, listen and speak in Turkish in all lessons and take Turkish tests, where they frequently read and analyze reading texts. Therefore, students are already accustomed to tackling these formal language tasks in Turkish. In addition, the Student Selection Exam, a standardized test given in Turkish for the admission to higher education in Turkey, is an important part of the education process for all students in Turkey and many students start preparing for this exam quite early in their education. All these factors explain why these students are found to be significantly better in Turkish than the other two languages.

With respect to the Kurdish, students were not overwhelmingly lower in the Kurdish tasks than the Turkish tasks, especially in the case of reading comprehension tasks, in which students were found to be equally successful. Despite the fact that
these students have never received any formal instruction in Kurdish, the results are not surprising because there are significant similarities between Turkish and Kurdish in terms of literacy. Also, it can be strongly argued that there is a linguistic interdependence through which students utilize their literacy skills gained in Turkish in processing the written texts in Kurdish. Indeed, the self-assessment results showed that they perceived their Kurdish skills to be well on average. Their frequent use of Kurdish at home and outside the school environment as well as the growing awareness for the maintenance of language and identity might also have played a positive role. However, their scores in Kurdish tasks were still lower than those in Turkish, and this can be explained through several factors. One of the factors can be that all instruments required students to use literacy skills, which they have not completely acquired in the L1 Kurdish due to the absence of a systematic literacy instruction in Kurdish as a part of their schooling experience. Apart from the lack of literacy instruction, the significant gap between the students' morphological awareness scores in Kurdish and Turkish can be accounted for by the fact that in various lessons, students were formally trained on the Turkish morphological system, including derivational morphology and therefore they have already had experience of derivational and decompositional processes in Turkish. However, no such training was present for Kurdish. Moreover, the fact that Kurdish derivational suffixes have relatively lower frequency especially in oral language might have played an important role in lower scores of morphological awareness in Kurdish. In other words, a lack of productivity for derivations and decompositions in colloquial Kurdish might have led to the significantly low scores in Kurdish morphological awareness test.

As for the results of English tasks, the students obtained the lowest scores in all measures. This gap is apparently related to the lack of input and low quality of instruction that the students receive in English. ${ }^{14}$ As noted earlier, these students learn English as a foreign language in the school environment with no contact or natural interaction with English outside the limited English classes. This is true both for reading and writing skills as well as speaking and listening skills in English. Moreover, although they already have the knowledge of two languages, Kurdish and Turkish, no specific reference is given to their bilinguality (i.e., they were considered to be monolingual Turkish speakers), which has been demonstrated to contribute significantly to acquisition of a third/additional language (Ellis, 1994; Cenoz \& Jessner, 2000; Griessler, 2001; Cenoz, 2001; 2003; Herdina \& Jessner, 2002) (see Chapter 2). The lack of input and low quality of instruction result in a very poor level of vocabulary development and grammar knowledge as reflected in poor performance in tasks testing other language skills, which in turn lead to impoverished English proficiency. Results suggest that these students had serious difficulties in understanding the texts used in the reading comprehension test and sentences in morphological awareness in English. Moreover, the course books used in English classes of state primary schools all over Turkey usually aim at promoting discrete language skills such as mastery of explicit grammar rules and memorization of rules of sentence formation. Both in the class exams and country-wide centralized university entrance exams in English, the students are either expected to know the meaning of a phrase out of its context or to relate a sentence or phrase to a given picture. Therefore, as in the case of most of the primary schools to which L1 Turkish

[^11]learners of L2 English attend, there is a lack of passage-based contextual reading instruction and it is not surprising that the participants reading comprehension scores in English are quite low. Similarly, really low level of English morphological awareness scores can be attributed to low levels of English proficiency.

Apart from examining the students' linguistic characteristics, a set of research hypotheses were investigated. As will be discussed below, the results supported most of the hypotheses concerning both the Interdependence Hypothesis and the Threshold Hypothesis discussed earlier. The following two sections present how the current results relate to these hypotheses and their predictions.

## The Interdependence Hypothesis

Three hypotheses were specifically formulated to test the Interdependence Hypothesis. The first one questions whether or not students' language proficiency scores in three languages are independent from each other. In line with the Interdependence Hypothesis (Cummins, 1979, 2000a), the results demonstrated that those students who attained higher proficiency in one of the three languages attained higher proficiency in other two languages as well. Conversely, those who obtained low proficiency in one language tend to have lower scores in the other two languages. The correlation analyses showed significant positive correlation among proficiency scores in three languages. Similarly, the regression analyses indicated that proficiency level in one of the languages of the students significantly accounted for proficiency in other languages, too. That is, proficiency skills developed in one language strongly predicts higher proficiency in the others.

In line with the previous research (e.g., Cenoz, 1991; Lasagabaster, 1998) which suggested that minority language use by students fosters both L2 and L3 language acquisition, the present research also revealed a direct relation between Kurdish language competence and language proficiency in Turkish and English. More specifically, Kurdish proficiency was found to be a primary predictor of both Turkish and English proficiency. Likewise, Turkish proficiency was the principal contributor to Kurdish proficiency whereas it did not account for a considerable variation in English proficiency.

One reason as to why the students' Kurdish proficiency had more impact on their English language competence can be explained in terms of typological similarity. The research suggests that linguistic closeness or distance plays a role in learning a new language in that learners compare and contrast existing similarities and differences between/across their languages during the learning process of a third/additional language (Williams \& Hammarberg, 1998; Cenoz, 2001, De Angelis \& Selinker, 2001; Odlin, 2003). Since Kurdish and English are typologically similar languages (both are from the Indo-European language family), this might have played a role in the form of cross-linguistic influence. However, this finding is interesting because the students do not have any instruction in Kurdish and they learn English via Turkish. In other words, they use Turkish-English dictionaries, their language teachers use Turkish to explain English grammar rules. Also, they are not encouraged to pay attention to the similarities between their Kurdish and English.

On the other hand, the finding that Kurdish proficiency contributed more significantly to Turkish proficiency and it was affected more by Turkish proficiency, rather than English cannot be explained by language typology but may be attributed to the very low levels of English proficiency attained by the students. In other words,
the students have not yet developed competence in English to the extent that it can feed their previous languages back.

The second hypothesis was concerned with the reading comprehension scores of the students across three languages. Also, in conformity with the Interdependence Hypothesis and the previous research (Alderson, 2000), the analyses showed that there is a significant interdependence among reading comprehension scores of the students across their languages. The correlation analyses showed that the students reading comprehension scores in Kurdish, Turkish and English were significantly correlated and the multiple regression analyses showed that reading comprehension in a language could significantly be predicted from the reading comprehension scores in other languages. As Cummins (1979, 1991, 2000a, 2009) argued, the interdependence hypothesis suggests that significant positive relationships exist between the development of academic skills (e.g., reading skills) in L1 and L2 (also in this case in the L3). From this point of view, the current data suggest that improved reading skills in a language does not only help develop productive use of these skills in that particular language, but also to the improvement of a deeper conceptual and linguistic proficiency that is strongly related to the development of corresponding skills in other languages known to bi/multilinguals. Therefore, if students are encouraged to develop reading skills in a language that is the most familiar to them, be it Kurdish or Turkish, they can be easily assisted to transfer these skills to their other languages, too. Complete mastery of these relevant reading skills in their two languages (Kurdish and Turkish) may also help developing corresponding skills in the L3 English.

Cummins (2000a, 2009) suggests that although the surface aspects (e.g., pronunciation, fluency) of different languages are clearly separate, there is an
underlying knowledge base, which is common across languages. For him, this common underlying knowledge base makes possible the transfer of concepts, literacy skills, and learning strategies from one language to another. Similarly, Durgunoğlu (2002) claims that there are certain literacy concepts and strategies that can be universal and operate across languages. For Durgunoğlu, these insights and skills need to be acquired only once and apply in all languages of learners. In line with these propositions, the results of the present study showed that reading skills in three languages significantly correlated with one another. Furthermore, the regression results revealed that reading skills in one of the languages accounted for significant variance in reading skills in another language. Therefore, it can be argued that improving reading skills in at least one of the languages of the students can lead to enhanced reading comprehension in the other languages when the necessary conditions such as sufficient input and language proficiency are provided.

Lastly, regarding the Interdependence Hypothesis, the relationships among morphological awareness across three languages were investigated. In fact, the research suggests that metalinguistic awareness is a good candidate of transfer across languages (e.g., Lasagabaster, 1998; Durgunoğlu, 2002; Bialystok, 2006). Since morphological awareness is a component of metalinguistic awareness, one anticipates it to transfer across languages known to bi/multilinguals. However, the correlation analyses of the present study showed that morphological awareness scores of the students in their three languages only moderately correlated with each other. The regression analyses revealed that morphological awareness scores of the participants in one language alone or in two languages together failed to explain practically significant amount of variance in morphological awareness in another language. Yet, the correlation between the morphological awareness scores of

Turkish and English were relatively more significant compared to Kurdish morphological awareness. Also, the regression analyses showed that Turkish morphological awareness, though moderately, could predict English morphological awareness and vice versa; whereas such a relationship was not found for Kurdish morphological awareness. These results can be explained with the fact that the students receive a comparatively extensive instruction for deriving and decomposing Turkish words and, although to a significantly lesser extent with English words, too. However, such a practice is not available in Kurdish. Moreover, morphological awareness develops usually in the presence of explicit knowledge of written language, which is achieved through explicit instruction. Koda (2000) suggests that metalinguistic awareness and literacy are developmentally interdependent. In this sense, transfer of morphological awareness skills across languages is more difficult and less observable if there is no instruction for that type of awareness and literacy. On the other hand, it can be argued that the instruments used to measure morphological awareness in Turkish, Kurdish and English also lead to such a results.

First of all, a parallelism among the three tasks across the languages was almost impossible. Therefore, only an approximate parallelism was sought. Also, one can argue that the tasks of deriving and decomposition in Kurdish and English might not be familiar to the participants, and consequently the participants failed to do the tasks correctly. Similarly, a lack of productivity of deriving and decomposing in Kurdish might be taken as a reason behind the end results.

To recapitulate, Cummins' theoretical framework concerning the interdependence of language proficiencies attained in two or more languages and that of reading comprehension across languages was supported by the current data from Kurdish-Turkish bilingual students learning L3 English in the school context even
when the students had not received any literacy instruction in their L1 Kurdish. However, such strong evidence of interdependence was not observed for morphological awareness across the languages involved. Nevertheless, this type of interdependence might have been ensured by literacy instruction in L1 Kurdish and with explicit encouragement to transfer the knowledge of how to derive and decompose morphologically complex words across their languages.

## The Threshold Hypothesis

Recall that in the present study, we also attempt to test the Threshold Hypothesis, proposed by Cummins (1979), according to which students would benefit from cognitive advantages of bilingualism only if they achieve high language proficiency. Following this reasoning, the hypothesis also implies that bilinguals who obtain high scores of language proficiency in their languages would also obtain high scores in other tests such as reading comprehension and metalinguistic awareness tests. Applying this hypothesis to a trilingual context, Lasagabaster (1998) found out that trilingual students who were competent in all their languages performed better in measures of metalinguistic awareness than those who were competent only in 1 or 2 of their languages. Those who were competent in 1 or 2 of their languages also outperformed the students who were not competent in any of the languages (see the literature review for more detail on this study). In line with the previous research, the results of the current study also showed that the students who attained a high level of proficiency in all the three languages performed better in reading comprehension and morphological awareness tests in all three languages than those who are competent in 1 or 2 of the 3 languages. Again in line with previous findings, those who had not
attained a high level of proficiency in any of the three languages obtained the lowest scores in all of the tests given in each language.

Furthermore, following the above-mentioned findings concerning the interdependence of language proficiency across languages, three specific questions were formulated to test the assumption that more proficient students would perform better in tests of reading comprehension and morphological awareness.

The first question concerned with the relationship between students' language proficiency and reading comprehension. Previous research (e.g., Alderson, 1984; Carrel, 1991; Lee \& Schallert, 1997) suggests that proficiency in a language was generally the most significant predictor of reading comprehension in that language. Resonating with the research, the results of our reading comprehension tests indicated that the students who obtained higher levels of language proficiency in a language generally performed better in reading comprehension tests of that language. In other words, there is no student, who obtained high scores in the proficiency tests but failed in the reading comprehension tests. To this end, the results of the present study showed that the students' proficiency scores in Kurdish, Turkish and English significantly correlated with their reading comprehension in these languages. Moreover, the results of the regression analyses in the cases of Kurdish and Turkish revealed that language proficiency could safely predict reading comprehension in these languages. The only exception was the case of English language proficiency, whose strength of prediction was not practically significant in determining students' reading comprehension in English. This finding can be attributed to the very low level of language proficiency attainment in English. In fact, in this specific case, another regression analysis revealed that the predictor variables, namely Turkish and Kurdish reading comprehension scores and English language proficiency, could all
together account for only $40 \%$ of the total variance in the outcome variable, which was English reading comprehension. The rest $60 \%$ still needed explanation; this meant that there were more significant predictors of English reading comprehension than the predictors used in the current study. These other predictors could possibly be vocabulary depth, effective reading strategies or other extraneous variables.

Secondly, the relationship between language proficiency and morphological awareness was examined in relation to the Threshold Hypothesis. As in the case of reading comprehension, the research suggests that language proficiency is an important determinant of metalinguistic awareness (Bialystok, 1991; Lasagabaster, 1998; Jessner, 1999; Jorda, 2005), which was tested via tasks of morphological awareness in the present study. It is proposed that students may require a threshold of language proficiency before they can enjoy advantages of knowing two or more languages in the realm of morphological awareness (Carlisle, 2000; Nagy, 2003 et al). In line with the research, the correlation results revealed that language proficiency and morphological awareness significantly correlated in each case. Moreover, the regression analyses consistently showed that the language proficiency score in a language was the primary predictor of morphological awareness in that language. In other words, as the Threshold Hypothesis predicted, the students who achieved high levels of language proficiency in the languages concerned performed significantly higher in morphological awareness tests of Kurdish, Turkish and English, too.

Finally, the role of morphological awareness in reading comprehension was explored. Previous research suggests that morphological awareness in a language is also an important predictor of reading comprehension in that language (Kuo \& Anderson, 2006; Nagy, Virginia \& Abbott, 2006; Kieffer \& Lesaux, 2007). Although
the correlation results revealed a significant relationship between reading comprehension and morphological awareness in both Kurdish and Turkish, such a significant correlation was not observed between reading comprehension and morphological awareness in English. Contrary to the Threshold Hypothesis, the regression analyses revealed that morphological awareness in a language failed to successfully predict the reading comprehension scores of the students in any of the cases. These findings can be attributed to a lack of explicit instruction for utilizing deriving and decomposing words in reading comprehension tasks in classrooms activities. Also, it can be argued that a lack of morphological awareness in the cases of Kurdish and English might lead to the results. On the other hand, it is possible that the instruments used to measure morphological awareness, which involved only derivational morphology might have failed to reveal the relationship of morphological awareness and reading comprehension in the languages involved.

Although it was not planned to investigate initially, some significant findings other than the research hypotheses under investigation were also observed. It is thought that reporting these findings may also contribute to further research, therefore two of them are also discussed below. Firstly, the findings show that the students have not developed L3 English competence up to the level of L2 Turkish or L1 Kurdish. This can be explained in terms of insufficient L3 English input/instruction (shortage of English-language teachers, lack of materials and no access to naturalistic data) students receive in the classroom environment in those public schools. Also, one can argue that a failure to relate implicit and/or explicit knowledge gained in their previously acquired languages (i.e., L1 Kurdish and L2 Turkish) to learning a third/additional (i.e., L3 English) exacerbates this end.

Secondly, a further analysis of the students' writing samples showed that they transfer their literacy skills related to orthographic patterns gained in Turkish while writing in Kurdish. The literature suggests that there might be certain literacy concepts and strategies that can be universal and operate across languages (Durgunoğlu, 2002; Bialystok, 2005). It is claimed that insights and skills need to be acquired only once and apply in other languages of language learners. On the other hand, there are also language-specific concepts and knowledge (e.g., orthographic patterns) that are specific to a language. In line with these assumptions, a qualitative analysis of the picture description tasks, used as a proficiency measure in this study, demonstrated that the students could make use of Turkish writing skills while writing in Kurdish as well. In other words, the students transfer the literacy skills gained in Turkish to during the processing and production of written texts in Kurdish. As explained in the methodology section, there are five letters in the Kurdish alphabet (ê, $\mathrm{x}, \mathrm{q}, \mathrm{u}$ and w), which do not exist in the Turkish alphabet. The analysis showed that many of the students used at least two or three of these letters (mostly 'ê', ' $x$ ' and ' $w$ ') in their written texts in Kurdish while almost a quarter of them used the Turkish alphabet exclusively while writing in Kurdish. Some of them mistakenly used the letter " $q$ " instead of writing " $k$ " while some others used the letter ' $\hat{a}$ ', which, in fact, is neither a letter in Turkish nor in Kurdish. The use of Kurdish-specific letters by these students might be due to the fact that some of the participants are informally exposed to the written Kurdish outside the school via Kurdish books, journals, magazines, newspapers and even via TV channels broadcasting in Kurdish. This may explain how they make use of certain letters peculiar to the Kurdish alphabet. Also, this can be attributed to a linguistic and metalinguistic knowledge that the Kurdish and Turkish alphabets utilize different symbols for different sounds
in written language. Awareness of the Kurdish-specific letters on the part of the students might also be due to an increased public awareness about the Kurdish language, particularly in the region, where the study was carried out. Indeed, the background questionnaire revealed that the majority of the students reported that they use both Kurdish and Turkish extensively while conversing with their peers. One can claim that interaction with peers using their L1 and L2 enhances metalinguistic awareness and possibly language proficiency not only in Turkish but also in Kurdish.

Nevertheless, misuse of some of the letters in writing in Kurdish suggests that the students have some metalinguistic awareness regarding the graphemic differences in written Kurdish and Turkish, but they may not exactly know which letters are represented differently in Kurdish. On the other hand, when their writing samples in Turkish were looked into, it was observed that there was no interference of any letter distinctly found in Kurdish. Thus, a partial evidence of L2 literacy transfer into the L1 was found but not vice versa.

Implications for Practice

This study revealed several findings which may have implications for both classroom settings of primary schools to which Kurdish-Turkish bilingual students attend and for the curriculum/language policies followed in schooling of these students. These findings can be explained as follows:

Firstly, in line with the Linguistic Interdependence Hypothesis explained earlier, the students' L1 Kurdish proficiency appears to play an important role in both their L2 Turkish and L3 English language proficiency. In turn, L2 Turkish proficiency is an important predictor of L1 Kurdish language competence. Given the results of the current study and that of the previous literature, the language policies
and curriculum to be followed in education of the Kurdish-Turkish bilingual students learning L3 English are required to be organized in a way that supports these students' language development not only in L2 Turkish and L3 English, but in L1 Kurdish as well. Moreover, both Turkish and English language instructors need to relate the students' language learning experiences to their previously acquired languages and make explicit use of previous language experiences so as to allow transfer across their languages as suggested by the Interdependence Hypothesis. Likewise, it appears that the students' reading and morphological awareness skills are language-independent and follow similar patterns in their three languages. Educators and language teachers should consider these cross-linguistic interactions among the learners' languages and encourage transfer of skills such as reading and morphological awareness across languages. The logic of the Linguistic Interdependence Hypothesis implies that if there is a specific focus on the transfer of language skills gained in one language to the other languages, the students can develop more improved language competence which, in turn, will lead to better reading comprehension and morphological awareness. In this sense, the finding that both the language proficiencies of students and their skills of reading comprehension and morphological awareness across their languages are interdependent calls for multilingual language education models, in which students will be encouraged to transfer their various skills gained in one language across the other language(s). Also, as Cummins (2007) suggests, these findings challenge the common assumption that monolingual strategies are superior both in bilingual and L2 immersion programs as well as in language teaching practices in general. Therefore, it can be said that language teaching practices should explicitly materialize the transfer of knowledge and language skills across the languages known to bi/multilinguals.

Secondly, the finding that the students with low levels of language proficiency performed considerably less in the reading comprehension tests in all the languages indicates a need for new teaching policies and practices to improve language development and reading comprehension. Given that reading, like language proficiency, plays a crucial role in both school achievement and continuous attendance to school (August \& Hakuta, 1997), educators should look for ways of improving students' reading comprehension along with their language development. In fact, research suggests that bi/multilingual education programs that take the role of mother-tongue as a central part of the education process is generally the best method of achieving long term school success of bi/multilingual minority students and attaining language development both in the L1 and in subsequently learned languages (Cummins, 1986, 2000a; Thomas \& Collier, 2002; Magga, Nicolaisen, Trask, Dunbar \& Skutnabb-Kangas, 2005; Mohanty, 2009 among others). In this respect, in line with what Ayan Ceyhan and Koçbaş (2009) suggest, the results of this research suggests the importance of a multilingual educational environment, in which Kurdish students' L1 background is considered as a tool for developing multilingualism. Such practices may also contribute to the intellectual and social development of these students in that they might have access to more apparatus to obtain and use new information and participate in the community in a more functional and active way.

Thirdly, the present study revealed that L1 Kurdish proficiency was the primary predictor of L3 English proficiency and a possible reason of that was discussed in terms of typological similarities existing between L1 Kurdish and L3 English. As explained earlier, both Kurdish and English are from the Indo-European language family and there are plenty of similarities, including some syntactic
features and morphological rules, between the two languages. Therefore, it was suggested that linguistic typology could be one of the factors of interrelationship between Kurdish and English language competence. Despite the existence of any explicit instruction relating the students' L1 Kurdish experience to L3 English acquisition, this finding suggests that Kurdish students could achieve even improved higher language proficiency in L3 English if they were to be encouraged to make use of similarities between Kurdish and English while learning English. Since the results of the current study, as suggested by the Interdependence Hypothesis, showed that improved proficiency in one language also contributes to a better developed linguistic competence in other languages, it can be argued that improving English language proficiency can, in turn, enhance language development in L1 Kurdish as well as L2 Turkish. In order to achieve this, the curriculum designers and policy makers as well as educators should develop effective multilingual teaching methods that take into account cross-linguistic differences and similarities in language learning and development in an attempt to promote bilingualism/multilingualism over monolingualism.

Also, traditional language teaching methods which extensively use drill activities with uncontextualized sentences and dialogues-to-be-memorized cannot help improve language learning (Richards \& Rodgers, 1986; Richards \& Renandya, 2002). Considering the importance of reading comprehension in language learning, particularly cognitive-academic language, carefully chosen written texts may provide opportunities for improved language learning and development of reading comprehension in L3 English with contextualized learning.

Additionally, an important implication of the present research is that learning L1 Kurdish is in no way an obstacle in front of school success; on the contrary,
enhancing L1 language development before and during schooling is an essential predictor of higher proficiency in both L2 Turkish and L3. Therefore, Kurdishspeaking parents should not refrain from speaking Kurdish to their children; on the contrary they need to explicitly enforce the mother tongue development of their children for a more effective multilingualism to occur.

Looking at the findings of the present study and the theoretical frameworks discussed earlier, it can be argued that one of the reasons of the educational problems such as pervasive underachievement in country-wide examinations such as SBS ${ }^{15}$ and YGS-LYS ${ }^{16}$, low school attendance and high drop-out rates among Kurdishspeaking students (as discussed in detail in Chapter 1) might be the lack of an education system that takes the linguistic and cultural background of these students into account. The findings of the present research imply that multilingual educational models that include the L1 variable into the school curricula of Kurdish students and relate it to subsequent language learning situations are required for more improved schooling of these students and their intellectual and social development. However, as Cummins (2009) suggests, it is important to emphasize that underachievement among minority language students also derives from many other sources such as socioeconomic status of students, micro-interactions between educators and students, low budgets and insufficient technical and educational infrastructure of schools, low teacher expectations, and so on. Therefore, simply providing some L1 instruction will not, by itself, transform students' educational experience. What should be done

[^12]in the broader sense is "to create an effective educational environment which challenges coercive power relations in the broader society by affirming minority language students' identities at school empowers minority students for collaborative creation of power and encompasses effective literacy instruction in both languages if students are to succeed academically" (Cummins, 2009: 29-30).

## Limitations of the Study

The current study certainly is not free from limitations, most of which are methodological in nature. First of all, one can argue that using a cloze test and a picture description task to determine the students' language proficiency gauge only a proportional facet of their linguistic competence. Developing more comprehensible test batteries that take into account students' academic proficiency in both oral and written domains would yield more sound generalizations.

Another limitation concerns the reading comprehension measures; reading comprehension of texts was only assessed through multiple-choice questions, which only focus on the end product but not the process of reading. More focused research investigating reading comprehension in relation to several contributing factors could shed further light on the nature of reading comprehension of the Kurdish-Turkish bilingual students learning English as L3.

Similarly, the morphological awareness task taken as a model (the Turkish Morphological Awareness Task) was initially prepared for younger participants and the complexity of the sentences used might have been relatively simple (EveyikAydın, 2010). Moreover, the participants had not received any formal or systematic
instruction or training about derivational morphology either in Kurdish or in English; whereas they were accustomed to such instruction in Turkish starting from grade 4. As a result, the participants might have had more difficulty in answering the morphological awareness tasks of Kurdish and English compared to the Turkish task. In addition, morphological awareness task used in the present study only tested derivational morphology but not inflectional morphology. Further research should definitely consider a more comprehensive task to evaluate morphological awareness.

Moreover, one can argue that administering twelve tests and a relatively loaded background questionnaire might have affected the participants' performance. They might have felt overwhelmed with the number of tests.

Another methodological limitation concerns the sample size, which might be considered to be small for such kind of a study design. One can argue that collecting data from a larger sample size sharing similar characteristics could have given us more solid results than what was provided in the current study. Moreover, the participants of this study were at a certain age and grade, living in a specific socioeconomic and sociolinguistic environment. Data from Kurdish participants living in other sociolinguistic and socioeconomic backgrounds could have provided further insight into the phenomena under investigation. It is important to replicate a similar study with L1-Kurdish students coming from high socio-economic background to see if the same findings hold.

Also, the participants of the study could not have a continuous English instruction over the years due to various factors. This makes it difficult to compare linguistic skills in English to those in Kurdish and in Turkish, with which students had clearly much earlier and consistent contact over the years.

However, it can be argued that reducing these limitations in further studies might support the findings of the present research with more strength. Therefore, despite the limitations, it is hoped that the present research could contribute to discussions calling for reforms in language policies regarding Kurdish-speaking students, and all the other linguistic minority students in Turkey, who need more sensitive school curricula that would encourage for multilingualism.

## CHAPTER 6

## CONCLUSION

This study has examined the relationship among language proficiency, reading comprehension and morphological awareness in the L1 Kurdish, L2 Turkish and L3 English by assessing students' language proficiency, reading comprehension and morphological awareness in each of these languages. It was sought to build upon previous studies that investigated the Linguistic Interdependence Hypothesis with languages in which participants had literacy skills in all their languages. In other words, the participants in this study are Kurdish-speaking students, who have received formal instruction and developed literacy skills in L2 Turkish. These students have also started learning L3 English in the classroom environment. However, their L3 English, due to limited exposure and low quality of instruction, has not developed as much as their L2. Their L1 Kurdish, on the other hand, has never been taught formally at school. In such context, it is interesting to investigate how proficiency, morphological awareness and reading comprehension interact within and across these languages.

In line with the theoretical framework of the Linguistic Interdependence and previous research, our findings reveal that there is a strong positive relationship and interdependence among the language proficiencies; the reading comprehension scores are interdependent and; proficiency in a language contributes significantly to reading comprehension and morphological awareness in that language. More specifically, the present research found a strong positive correlation among language proficiency scores of the participants in Kurdish, Turkish and English. The
regression analyses also showed that both Turkish proficiency and English proficiency were significant predictors of Kurdish proficiency but Turkish proficiency was a better predictor for it. Similarly, Kurdish proficiency, but not English proficiency, was a strong predictor of Turkish proficiency. As for the case of English proficiency, the results of regression analyses showed that Kurdish was a more significant predictor of English proficiency compared to the impact of Turkish proficiency, which did not account for significant amount of variance.

Likewise, a strong positive correlation among reading comprehension scores in Kurdish, Turkish and English was observed. The regression analyses showed that both Turkish reading comprehension and English reading comprehension contributed to Kurdish reading comprehension of the participants. However the impact of Turkish reading comprehension was more significant than the contribution of English reading comprehension. Similarly, both Kurdish reading comprehension and English reading comprehension were almost equally significant predictors of Turkish reading comprehension. And finally, both Turkish reading comprehension and Kurdish reading comprehension were found to be significant predictors of English reading comprehension, while Turkish reading comprehension was a better predictor for this.

Another finding of the research was that there was a moderate correlation among the morphological awareness scores of the participants in Kurdish, Turkish and English. Likewise, the regression analyses revealed that although statistically significant, morphological awareness scores of the participants in two languages together could only moderately predict the morphological awareness scores in their other language. This was true in all three languages.

As for the relationship between language proficiency and reading comprehension, the results revealed that language proficiency in Kurdish and Turkish were the most important predictor of reading comprehension in these languages. However, the same was not true for English language proficiency which was not a significant predictor of English reading comprehension. Similarly, proficiency in a language was found to be the most important predictor of the morphological awareness in that language.

When the interplay among reading comprehension, language proficiency and morphological awareness was examined, the results showed that language proficiency was the most important predictor of reading comprehension in the cases of Kurdish and Turkish, but the same was not true for English reading comprehension. Likewise, reading comprehension in two of the languages was generally found to be important predictor of reading comprehension in the participants' other language. Nevertheless, unlike the previous research and the specific research hypothesis formulated for this study, morphological awareness in a language was not found to be a significant predictor of reading comprehension in that language in any of the cases.

The present study also showed that high levels of L1, L2 and L3 proficiency pointed to better reading comprehension and morphological awareness in all the languages involved. The results showed that those students who were considered competent in all three languages performed better than both those who were only competent in one or two of the three languages and those who were not competent in any of their languages in measures of reading comprehension and morphological awareness in all three languages. Those students who were competent in one or two of their languages also performed better than the students who were not competent in
any of the languages. These findings revealed a parallelism with previous literature, in that bi/trilingualism by itself does not lead to cognitive advantages independent of other variables. That is, the type of bilingualism, being competent in two or more languages, is a significant consideration. This suggests that only those students who are more proficient in two or more languages attain higher levels in reading comprehension and morphological awareness in all the languages in question.

All these results confirm the theoretical framework (both the Interdependence and the Threshold Hypotheses) and propose that maintaining the Kurdish-speaking students' mother tongue would help them function better in their other languages and to be more functional multilinguals. On the other hand, a lack of development in the home language and low levels of language proficiency in the other languages might negatively affect their cognitive development, as discussed in the Threshold Hypothesis. In this sense, the results provide evidence against the claim that the development of L1 might pose a threat to the acquisition of L2 and L3. In other words, improved linguistic skills in the L1 Kurdish can lead to more developed language competence in L2 Turkish and L3 English. These findings also concur with previous research conducted with minority language students, which recommended improvement of L1 development for better results in terms of both subsequent language learning and school achievement.

In conclusion, it can be argued that the development of language proficiency and reading comprehension in L1 Kurdish, L2 Turkish and L3 English are highly interdependent processes. On the other hand, although morphological awareness of the students across their three languages is moderately correlated, a strong interdependence is not observed at least when there is not explicit instruction that might feed such awareness. Moreover, more proficient students make better use of
reading comprehension and morphological awareness in general. Based on these findings, it is recommended that efforts should be geared towards making Kurdishspeaking students more proficient both in their L1 and L2 as a way of improving their school performance and linguistic competence in all their languages, besides all the other advantages that might be related. To be able to achieve this, L1 Kurdish should be one of the mediums of teaching curriculum. Furthermore, teachers should use more appropriate multilingual teaching methodologies and language materials, which will relate L 3 learning experience to L 1 and L 2 learning experience so as to encourage transfer of certain linguistic skills such as reading comprehension and morphological awareness across languages in an aim to promote cognitively and linguistically more mature and successful multilingual students.

APPENDICES

## APPENDIX A. TANIŞMA ANKETİ <br> (BACKGROUND INFORMATION QUESTIONNAIRE)

## A) Kișisel Bilgiler

Bu anket dil durumunuzu daha iyi anlamak içindir. Bu ankette doğru ya da yanlış yanıt yoktur, sizin yanıtınız önemlidir. Adınız ve diğer kişisel bilgileriniz hiçbir yerde açıklanmayacak ve verdiğiniz yanıtlar sadece bu araştırmada kullanılacaktır. Herhangi bir soru sizin durumunuzu açıklamıyorsa lütfen boş bırakınız.
1.Ad: $\qquad$ 2. Soyad: $\qquad$ 3. Yaş: $\qquad$
4. Cinsiyet:KızErkek
5. Doğum Tarihi (Ay/Yıl): $\qquad$ 6. Doğum Yeri: Şehir: $\qquad$ İlçe: $\qquad$
7. Sinıf: $\qquad$
8. Aileniz kaç kişiden oluşuyor? (Sadece anne-baba ve kardeşleriniz) $\qquad$
9. Kaç seneden beri Van'da yaşıyorsunuz? $\qquad$
10. Babanız ne işe yapmaktadır? $\qquad$
11. Anneniz ne iş yapmaktadır? $\qquad$
12. Babanızın eğitim durumu: $\square$ Okuma-Yazma yok $\square$ İlkokul $\square$ Ortaokul $\square$ Lise $\square$ Üniversite
13. Annenizin eğitim durumu: $\square$ Okuma-Yazma yok $\square$ İlkokul $\square$ Ortaokul $\square$ Lise $\square$ Üniversite
B) Dilbigisi Bilgileri
14. İlk öğrendiğiniz dil hangisidir?: $\quad \square$ Kürtçe $\square$ Türkçe $\square$ İngilizce $\square$ Diğer(belirtiniz)_
15. İkinci öğrendiğiniz dil hangisidir?: $\square$ Kürtçe $\square$ Türkçe $\square$ İngilizce $\square$ Diğer(belirtiniz)_
16. Üçüncü öğrendiğiniz dil hangisidir?: $\square$ Kürtçe $\square$ Türkçe $\square$ İngilizce $\square$ Diğer(belirtiniz)_
17. Hangi dili en iyi konuşuyorsunuz?: $\square$ Kürtçe $\square$ Türkçe $\square$ İngilizce $\square$ Diğer(belirtiniz)_
$\begin{array}{lllll}\text { 18. Kürtçe'yi ilk nerede öğrendiniz? } & \square \text { Evde } & \square \text { Kursta } & \square \text { Dışarıda } & \square \text { Diğer(belirtiniz)_ } \\ \text { 19. Türkçe'yi ilk nerede öğrendiniz? } & \square \text { Evde } & \square \text { Okulda } & \square \text { Dışarıda } & \square \text { Diğer(belirtiniz)_ }\end{array}$
20. Kürtçe'yi kaç yaşında öğrenmeye başladınız? $\qquad$
21. Türkçe'yi kaç yaşında öğrenmeye başladınız? $\qquad$
22. İngilizce'yi kaç yaşında öğrenmeye başladınız? $\qquad$
23. Hiç Kürtçe kursuna katıldınız mı? $\square$ Evet
24. Okul dışında hiç Türkçe kursuna katıldınız mı?Evet
25. Okul dışında hiç İngilizce kursuna katıldınız mı?
$\square$ Evet
$\square$ Hayır Süre: $\qquad$Hayır
Süre: $\qquad$
$\square$ Hayır Süre: $\qquad$

## C) Dil Kullanımı Bilgileri

Aşağıda dil durumunuz ve farklı insanlarla hangi dil(ler)de konuştuğunuz ile ilgili sorular bulunmaktadır. Lütfen tüm sorulara iyice düşünerek ve sizin durumunuzu en iyi açıklayan yanıtı veriniz. Bu ankette doğru ya da yanlış yanıt yoktur. Herhangi bir soru sizin durumunuzu açıklamıyorsa lütfen boş bırakınız.
26. Aşağıda belirtilen insanlarla konuşurken SIZZ hangi dili kullanıyorsunuz?

|  | Her zaman <br> Kürtçe | Daha çok <br> Kürtçe | Kürtçe ve <br> Türkçe eşit <br> olarak | Daha çok <br> Türkçe | Her zaman <br> Türkçe |
| :--- | :--- | :--- | :---: | :---: | :---: |
| Babanızla |  |  |  |  |  |
| Annenizle |  |  |  |  |  |
| Sizden büyük abi- <br> ablanızla |  |  |  |  |  |
| Sizden küçük <br> kardeşlerinizle |  |  |  |  |  |
| Okuldaki <br> arkadaşlarınıla |  |  |  |  |  |
| Okul dışındaki <br> arkadaşlarınıla |  |  |  |  |  |
| Öğretmenlerinizle |  |  |  |  |  |
| Birlikte oynadığınız <br> arkadaşlarnızla |  |  |  |  |  |
| En iyi arkadaşınızla |  |  |  |  |  |
| Komşularınızla |  |  |  |  |  |
| Akrabalarınızla |  |  |  |  |  |

27. Aşağıda belirtilen insanlar SİZiNLE konuşurken hangi dili kullanıyor?

|  | Her zaman <br> Kürtçe | Daha çok <br> Kürtçe | Kürtçe ve <br> Türkçe eşit <br> olarak | Daha çok <br> Türkçe | Her zaman <br> Türkçe |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Babanız |  |  |  |  |  |
| Anneniz |  |  |  |  |  |
| Sizden büyük abi- <br> ablanız |  |  |  |  |  |
| Sizden küçük <br> kardeşleriniz |  |  |  |  |  |
| Okuldaki <br> arkadaşlarınız |  |  |  |  |  |
| Okul dşındaki <br> arkadaşlarınız |  |  |  |  |  |


| Öğretmenleriniz |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Birlikte <br> oynadığınız <br> arkadaşlarnız |  |  |  |  |  |
| En iyi arkadaşınız |  |  |  |  |  |
| Komşularınız |  |  |  |  |  |
| Akrabalarınız |  |  |  |  |  |

28. Aşağıda belirtilen işleri yaparken hangi dili kullanıyorsunuz?

|  | Her zaman <br> Kürtçe | Daha çok <br> Kürtçe | Kürtçe ve Türkçe <br> eşit olarak | Daha çok <br> Türkçe | Her zaman <br> Türkçe |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Televizyon izlerken |  |  |  |  |  |
| Eğer yapıyorsanız, <br> namaz kılarken veya <br> dua ederken |  |  |  |  |  |
| Gazete, dergi veya kitap <br> okurke |  |  |  |  |  |
| Müzik dinlerken <br> (Kaset/CD) |  |  |  |  |  |
| Radyo dinlerken |  |  |  |  |  |
| Alı̧veriş yaparken |  |  |  |  |  |
| Arkadaşlarınzla birlikte <br> oynarken |  |  |  |  |  |
| Telefonda konuşurken |  |  |  |  |  |
| Otobüs- Minibüs- <br> Dolmuşta |  |  |  |  |  |
| Bayram ziyaretlerinde |  |  |  |  |  |
| Akraba ziyaretlerinde |  |  |  |  |  |

## D) Dil Becerileri

Lütfen yanıt verirken aşağıaki kriterlere göre işaretleyiniz.
29. Aşağıdaki alanların her birinde Kürtce dil becerinizi nasıl değerlendirirsiniz?

|  | Hiç yok | Çok az | Orta | İyi | Çok iyi |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Okuma |  |  |  |  |  |
| Yazma |  |  |  |  |  |
| Konuşma |  |  |  |  |  |
| Kelime bilgisi |  |  |  |  |  |
| Dilbilgisi |  |  |  |  |  |
| Genel dil yeterliliği |  |  |  |  |  |

30. Aşağıdaki alanların her birinde Türkçe dil becerinizi nasıl değerlendirisiniz?

|  | Hiç yok | Çok az | Orta | İyi | Çok iyi |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Okuma |  |  |  |  |  |
| Yazma |  |  |  |  |  |
| Konuşma |  |  |  |  |  |
| Kelime bilgisi |  |  |  |  |  |
| Dilbilgisi |  |  |  |  |  |
| Genel dil yeterliliği |  |  |  |  |  |

31. Aşağıdaki alanların her birinde İngilizce dil becerinizi nasıl değerlendirisiniz?

|  | Hiç yok | Çok az | Orta | İyi | Çok iyi |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Okuma |  |  |  |  |  |
| Yazma |  |  |  |  |  |
| Konuşma |  |  |  |  |  |
| Kelime bilgisi |  |  |  |  |  |
| Dilbilgisi |  |  |  |  |  |
| Genel dil yeterliliği |  |  |  |  |  |

## APPENDIX B: KURDISH CLOZE TEST

## Kürtçe Boşluk Doldurma Testi

Adı Soyadı:
Sinıfi:
Lütfen aşağıdaki hikayedeki herbir boşluğu en uygun sözcükle doldurunuz. Her boşluk için yalnızca bir tek sözcük kullanınız.

Mızgin lı Gund

Hevalên Mızgınê kêleka wê rûnıştıbûn. Mızgin behsa tatila xwe ya dıkır. "İsal ez çûm gundê bapirê $\qquad$ (2). Ez wê derê ker û hespan
(3) bûm û bi karik berxan leyistım.
(4) êvarê pez jı çêrê dihatin, me $\qquad$ (5) dixıstın hewşê.

Wexta pirê bizin û
(6) didotın, min ji bı zehmeti serê dıgırtın. Aliyeki va mıh û bızın $\qquad$ (8) aliyê ki va berx û karik
$\qquad$ (9) Wan dixwastin bên rex hev. Paşî, $\qquad$ (10) mın hemû bızın û mıh didotın, $\qquad$ (11) mın berx û karik berdıdan nav $\qquad$ (12) . Berx û karik derhal bılez dayikên $\qquad$ (13) dıgeriyan, ew diditın.

Wexta wan memikên $\qquad$ (14) xwe dikırın devê xwe, hema ser (15) rûdınıştın. Dayikên wan êdi nedıkaliyan. Wan
awaki bextiyari devê xwe radıkırın jor. $\qquad$ (17) yekyek nav wan dıgeriyam û mın $\qquad$ (18) xwe pışta wan dixıst. Mın wan $\qquad$ (19) û wan ji mın pır hez $\qquad$ (20). Wexta ez jı gund vegerıyam, çavên (21) tiji hêstır bûn. Ez giriyam. Pirika $\qquad$ (22) got:

Keça min, tu dışê disa $\qquad$ (23) gund."

Min dayika xwe nihêrî û wê $\qquad$ (24) nihêri û got:
"Mızgin, ezê dîsa $\qquad$ (25) binım gund, tu dışê disa gel û berxan bilizi."

Min bazda rex $\qquad$ (27) xwe, destên xwe stûyê wê dorandin, $\qquad$ (28) caran ew maçi kir û got: " $\qquad$ (29) sıpas jıbo te dayika şêrin!" Ew $\qquad$ (30) jıbo Mızgînê gelek xweş bû.

## Translations of the Kurdish Cloze Test <br> Mizgin in the Village

Mizgin's friends were sitting around her and she was talking about her last holiday. "This year, I spent my holiday with my grandma and grandpa in the village. I rode donkeys and horses there and played with lambs and goats.

When the herd returned from grazing, we let them in the shed. While my grandma was milking them, I held their heads with difficulty. Sheep and goats bleated from one side, lambs and baby goats from the other side. They wanted to come together. After my grandma milked all of them, my grandpa released the lambs and baby goats among the herd. The lambs and baby goats immediately looked for their mothers, and found them. When they reached their mothers' dugs, they knelled down on their knees. Their mothers no longer bleated. They happily raised their mouths up. I wandered among them step by step and touched on their back with my hands. I liked them all and they all liked me a lot. Therefore, I didn't want to leave the village. When I was about the leave the village, my eyes were full of tears. My grandma hugged me and said:
"Mizgin, my sweet baby, why are you so sad. You can come to the village again." When I heard that, I looked at my mum and she looked at me and said: "Mizgin, I will bring you back here, you can play with the goats and lambs." I run to my mother, put my arms around her neck, kissed her several times and said: "Thank you very much my sweet mum!" That was a great holiday for Mizgin.

## APPENDIX C: TURKISH CLOZE TEST

Türkçe Boşluk Doldurma Testi

Adı Soyadı: $\qquad$

Lütfen aşağıdaki hikayedeki her bir boşluğu en uygun sözcükle doldurunuz. Her boşluk için yalnızca bir tek sözcük kullanınız.

Yaralı Güvercin

Ali bahçeye oynamaya çıktı. Canı çok sıkılıyordu. Aklından "Bir arkadaşım olsa da oynasam!" (1) geçirdi. Bu sırada önüne bir şey (2) . Ali önce korktu. Sonra düşen şeye $\qquad$ (3) baktı. Bir de ne görsün? Bu
(4) güvercindi. Zavallı kuş yaralıydı. Kanadı kanıyordu.
(5) kızarak "Kuşlara taş atan yaramaz çocukların (6) bu!" dedi.

Güvercin çırpınıyordu. Ali’nin başına $\qquad$ (7) kadar böyle bir şey gelmemişti. Yaralı $\qquad$ (8) kuş nasıl iyi edilir, hiç bilmiyordu. $\qquad$ (9) dedesi geldi. "Dedem bilir; onu çağırayım" $\qquad$ (10) düşündü. Hem dedesi ona ikide bir " $\qquad$ (11) her şeyi bilirim. Çünkü yaşlıyım. Şimdiye
$\qquad$ (12) çok şey gördüm, duydum " demez miydi?

Ali’nin $\qquad$ (13) yaralı bir güvercinin tedavisini biliyordu. Önce $\qquad$ (14) kanadını temizledi. Yaralı yere ilaç sürdü. " (15) işimiz beklemek. Ya ölür, ya yaşar" $\qquad$ (16) . Bir yandan da güvercini avuçlarına ald. $\qquad$ (17) ona dikiş sepetini boşaltıp rahat bir (18) yapt. Ali dedesine "Ne olur dede, $\qquad$ (19) benim yanımda kalsın!" diye yalvardı. Ali $\qquad$ (20) gece sabaha kadar uyumadı. Güvercinin başında ..................... (21) . Sabah oldu. Horoz uzun uzun öttü. $\qquad$ (22) biraz
dalmıştı ki yerinden sıçradı. Hemen $\qquad$ (23) baktı. Güvercin ayağa kalkmış, gagasını "tak $\qquad$ (24) " diye sepete vuruyordu. Dede de merak (25) koştu. Manzarayı görünce çok neşelendi.

- İyice $\qquad$ (26) . Çünkü karnı bile acıkmış" dedi.

Ali ..................... (27) gidip kuru ekmek getirdi. Ekmekleri ufalayıp $\qquad$
(28) yedirdiler. Güvercin ötmeye başladı.

Ali ile $\qquad$ (29) sevinçle kucaklaştılar. Artık Ali’nin yeni bir $\qquad$ (30) vardı. Ali içinden gülümsedi çünkü bu güzel anısını hiç unutmayacaktı.

## APPENDIX D: ENGLISH CLOZE TEST

İngilizce Boşluk Doldurma Testi
Adı Soyadı:
Sinıfi:
Lütfen aşağıdaki hikayedeki herbir boşluğu en uygun sözcükle doldurunuz. Her boşluk için yalnızca bir tek sözcük kullanınız.

Mary's Birthday

It was Mary's birthday. She received an e-mail from her uncle. "Dear Mary,"
$\qquad$ (1) wrote in the letter, "Happy Birthday! (2) am
sending you some chickens. They $\qquad$ (3) arrive tomorrow. I hope you like $\qquad$ (4) . Uncle Toby."

Mary was very pleased. $\qquad$ (5) likes eating eggs and chicken. "I
$\qquad$ (6) keep the chickens for their eggs $\qquad$ (7) eat them," she thought.

When the $\qquad$ (8) arrived in the afternoon, they were (9) in a box. Mary was very $\qquad$ (10). She took the box off the
of the truck and began to $\qquad$ (12) it into her garden, but the $\qquad$ (13) of chickens was so heavy that $\qquad$ (14) dropped it. The box fell to
$\qquad$ (15) ground and broke. The chickens all $\qquad$ (16) away. They ran here and there. $\qquad$ (17) spent hours to find them.

A $\qquad$ (18) days later, her uncle came. He $\qquad$ (19) , "Did the chickens arrive safely?" "Yes, $\qquad$ (20) I dropped the box. It opened
$\qquad$ (21) the chickens ran everywhere. I spent $\qquad$ (22) whole morning looking for them," Mary $\qquad$ (23) .
"Did you find them all?" asked $\qquad$ (24) uncle. "I hope so," Mary answered, $\qquad$ (25) I only caught eleven of them." (26) is very interesting because I only $\qquad$ (27) you six," her uncle said with
$\qquad$ (28) smile. They looked at each other $\qquad$ (29) laughed. It was a great memory $\qquad$ (30) Mary.

APPENDIX E: PICTURE DESCRIPTION TEST


# APPENDIX F: KURDISH READING COMPREHENSION TEST <br> Kürtçe Okuduğunu Anlama Testi <br> Adı Soyadı:........................................ <br> Sinifi:...... <br> Her bir okuma parçasını dikkatlice okuyun ve sorulan sorulara en uygun cevabın verildiği seçeneği işaretleyin. 

Mardin
Mardin bajareki pır kevn û meşhûr e lı Mezopotamyayê. Bajar lı ser çıyayeki ava bûye. Keleha wê ya kevn, hemi rıyên bajêr bı xwe ve gırê dıde. Loma, jı wê derê re dıbêjın "Mirê Kelahan". Dı tarihê de gelek qralan xwestıye wê têxe destê xwe, lê Keleha Mardinê rê nedaye wan. Mardin, $\mathrm{b}_{1}$ ava xwe ya hênik û xwezaya xwe ya balkêş meşhûr e. Bakurê wê cihê bexçe û bostan hene. Dı tarihê de jı bo vrra şerên grran çêbûne. Beri çêbûna Isa pêxember, Asurıyan û İranıyan şerên mezın kırıne. Demekê, Romi lı vır mane. Bı hatına islamıyetê, dı dema Hz. Omer da, mısılman hatıne vira, bajar xıstıne bın hakımıyeta xwe. Kurdan dı dema Merwanıyan de bajar gelek baş idare kırıye. Pıştre Artuki lı vır bı ci bûne. Bajar, bı aqılmendıya Idrisê Bedlisi, dı dema Selimxanê kurê Sultan Beyazıt de ketıye kontrola Osmanlıyan.

1. Çıma jı Mardinê re dıbêjın Mirê Kelehan?
A) $\mathrm{J}_{1}$ ber ku lı Mirê Mardinê gelek bı quwet e.
B) Çımki Mardin lı Mezopotamyayê ye.
C) $J_{1}$ ber ku Mardin gelek kevn û meşhûr e.
D) Çımki hemi rıyên Mardinê gırêdayê Kelehê ne.
2. Lı gori nıvisê kijan rast e?
A) Gelek mıletên cuda hatıne Mardinê.
B) Lı Mardinê carekê tenê şer çêbûye.
C) Mıletê Mardinê gelek zengin e.
D) Navê Mardinê yê wextekê, Artuki ye.
3. L1 gori nıvisê kijan rast e?
A) Merwani, pışti Artukıyan hatıne Mardinê.
B) Osmanlıyan Mardin feth kırıye.
C) Navê qralê Mardinê Idrisê Bedlisi ye.
D) Keleha Mardinê jı şehrê gelek dûr e.

## Zaro Axa

Zaro Axa wextekê dı cıhanê de mırovê heri pir bû. Deh padişahê Osmanlıyan û serokkomarek ditıne. Dı emrê xwe de şeş şer ditıne. Lı gori hınek kesan heft, lı gori hıneka 13, lı gori hineka ji 29 caran zewicıye. 13 zarok û 29 nevıyên wi hebûne. Dı sala 1774 'an de lı bajarê Bıtlisê qazaya Mutkıyê hatıye dınyayê. Wexteki, jı bo muayeneyê, ew bırıne Emerikayê. Lı wır bala gazate û radyoyên Emerika û cihanê kışandıye. Lı Emerikayê gelek meşhûr bûye. Lı gori Rohat Alakomê alımê tarihê, dı pasaporta Zaro Axa de tariha rojbûyina wi wek 1774 nıvisandıye. Zaro Axa dı sala 1934'an de, dı 160 salıya xwe da dıçe ber rehma Xwedê û wefat dıke. Pışti mırına Zaro Axa, jı bo peydakırına sebebên emrê wi yê dırêj lı ser termê wi otopsi hate kırın û jı bo wê, meji, dıl û kezeba wi jı nav laşê wi hatın derxıstın.

1. Maneyê gotına "diçe ber rehma Xwedê" çı ye?
A) diçe Emerikayê
B) nexweş dibe
C) dibe misılman
D) dımıre
2. Lo gori nıvisê kijan rast e?
A) Gelek zarokên Zaro Axa çêbûne.
B) Zarok Axa serokê Bitlisê ye.
C) Rohat Alakom kurê Zaro Axa ye.
D) Zaro Axa lı Emerikayê mırıye.
3. Ev nıvis behsa çı dıke?
A) Mıletê Bıtlisê
B) Şerên Osmanlıyan
C) Nexweşıya zilaman
D) Zaro Axa

Pışti rıyekê dûr û dırêj, ez gıhıştım otelekê. Oda mın nişa mın dan, ez derketım odê. Mın çavên xwe lı hundırê odê gerandın. Mın tenê fikra razanê dıkır. Nıvin zêde temiz nebûn, lê mın disa ji kıncên xwe derxıstın, lamba xwe vemırand û hêdi hêdi ketım nav cıhan. Hema ku xew kete çavê mın, dengê xışxışekê hate mın. Mın serê xwe $1 ı$ ser balifề rakır, guhên xwe da wi dengi. Icar ne bı tenê dengê xışxişê, dengê çizçizıkê ji hat mın. Ez gelek jı kurmık û kêzıkan ditırsım. Çawa ku mın lambe pêxıst, mın dit ko tıştek bı lez jı wır derbas bû. Demeke dırêj sola mın destê mın de bû û ez lı benda wi tışti sekınim, lê ew derneket. Ez êdi westıyabûm. Mın sola xwe dani erdê û bêyi ku lambê vemırinım, mın xwe lı ser nıvinê dırêj kir. Bı xışxış û çizçizeke dın, mın dit ko kêzıkek mezın (mın tu caran kêzıkên wusa mezın neditıbû) jı pışt dıwarê derket. Erê, bawer bıkın mın kêzıkek wusa qet neditıbû. Herdu çavên wê sor bûn û pozê wê reş bû. Serê wê mina serê mûriyekê bû, lingên wê baş xuya nedıkırın, lê jı çaran zêdetır bûn.

1. Dıvê navê çirokê kijan be?
A) Kêzık û Mêrık
B) Sola Mêrıki
C) Çavên Kêzıkê
D) Otelekê Baş
2. Lı gori çırokê kijan rast e?
A) Kêzık dı nav nıvinan de ye.
B) Mêrık xewnekê dıbine.
C) Kêzık jı mêrıki ditırse.
D) Mêrk dıxwaze razê.
3. Lı gori çırokê kijan rast e?
A) Mêrık jı cıhekê nêzık hatıye.
B) Otel gelek paqij û temiz e.
C) Kêzık nahêle mêrık razê.
D) Serê kêzıkê gelek mezın e.

## Kêr û Çetel

Rojekê muelıma gundê me mektubek da mın û ez şandım Qersê. Pışti rojekê ez gıhıştım mala muelıma me. Mın lı derıyê malê da. Mêrıkeki bılınd û bı berçavk jı hundır derket, kaxez jı destê mın gırt û xwend. Zarok ji hatın dora mın gırtın. Wi mêrıki da pêşıyê, ez bırım nava xani. Zarokan ji da pey me hatın û bû pıstepısta wan, bı hev re xeber dıdan. Mın şerm dıkır. Ez sor bûm. Hızmetkara wan firaqek teji şorbe kır û dani ber mın. Kevçi, kêr û çetelek ji lı tenıştê danin. Ez ecêbmayi mam. Mın nızanıbû ku jı bo çı ew kêr û çetel danin ber mın. Mın şorbe bı kevçi xwar. Kêr û çetel ji kırın berika xwe. Mın got qey ew listokên zarokan in û wek hediye dan mın. Hızmetkara wan yeka qelew û sûretsor bû. Wê qet çavên xwe jı mın nedıbırin. Wê dit ku mın kêr û çetel kırın beriya xwe. Çû û jı xwedıyê malê re got. Xudanê malê hat û got:
"Te çıma ev kêr û çetel kırıne berıya xwe?"
Mın got, "çıma, ma we ew dıyarıyê mın nekırıne?"

1. Ew çıma dıçe Qersê?
A) $J_{1}$ ber ku ew dê lı wir bixebite.
B) Çımki metkuba muelımê dıbe.
C) $\mathrm{J}_{1}$ ber ku dê û bavên wi lı wir in.
D) Çımki hevalên wi çûne wıra.
2. Lı gori çırokê kijan rast e?
A) Ew bı zarokan re dıleyıze.
B) Ew nızane çı bıke bı kêr û çetelê.
C) Xudanê malê muelım e.
D) Ew xizmetkara malê nas dike.
3. Ev çırokê behsa zarokeki dıke ku $\qquad$
A) mala dê û bavê wi lı Qersê ye.
B) dıbe hevalê zarokên muelıma xwe.
C) qet jı şorbeyê hez nake.
D) bı şaşi kêr û çetelekê têxe berika xwe.

Translation of the Kurdish Reading Comprehension Test

## Mardin

Mardin is an old and famous city in Mesopotamia. The city has been situated on a mountain. Its old castle connects all the roads of the city to itself. Therefore, it is called "The King of Castles". Many kings had wanted to sieze it during the history, but the Castle of Mardin never let them do that. The city is also famous for its cold water and beautiful scenery. In the north lie gardens and fields. There had been wars for this place. Before Christ's birth, Assyrians and Iranians had big wars. Turks lived here for sometimes. With the coming of Islam, during the reign of Omar, muslims came here and controlled the city. Kurds have controlled the city during the reign of Merwanis. Later, Artuks settled here. With the help of Idris-i Bitlisi, the city was taken over by the Ottomans during the time of Sultan Beyazid, son of Selim.

1. Why is the city called "The King of Castles"?
A) Because the ruler of Mardin is very powerful.
B) Because Mardin is in Mesopotamia.
C) Because Mardin is very old and famous.
D) Because it embraces all the roads to the castle.
2. Which one is correct according to the passage?
A) Many different people have come to Mardin.
B) Mardin faced only one big war.
C) The people of Mardin are very wealthy.
D) One of the old names of Mardin is Artuks.
3. Which one is correct according to the passage?
A) Merwani came to Mardin after Artuks.
B) Ottomans had conquered Mardin.
C) The name of the king of Mardin is Idris-i Bedlisi.
D) The Mardin Castle is very far from the city.

## Zaro Axa

Zaro Agha was once the oldest person of the world. He had lived during the life time of ten Ottoman sultans and a president. Also then ward occured while he was alive. Some people claim that he got married seven times, for some people it is thirtheen and still some other think that he made twenty nine marrieges. He had 13 children and 29 grandsons. He was born in Mutki in Bitlis, in 1774. Once he was taken to the United States to be checked up. He attracted the newspapers and radio stations over there and became famous. According to the historian Rohat Alakom, the birth date of Zaro Agha on his passport is 1774 . He passed away in 1934 when he was 160 years old. After his death, his body was examined and his brain, hearth, livers were taken out of his body in order to find out the reasons of his long life.

1. What does the phrase "goes to the God's mercy" mean?
A) goes to the United States
B) becomes ill
C) converts to Islam
D) passes away
2. Which one is correct according to the passage?
A) Zaro Agha had many children.
B) Zarok Agha is the ruler of Bitlis.
C) Rohat Alakom is the son of Zaro Agha.
D) Zaro Agha passed away in the United States.
3. What is the main topic of the passage?
A) People of Bitlis
B) Ottoman wars
C) Illnesses of men
D) Zaro Agha

After a long long journey, I arrived at a hotel. They showed my room to me and I went to the room. I looked around the room. I was only thinking of sleeping. The bed was not clean enough, but I still took of my clothes, put off the lamp and lied on the bed. As soon as I slept, I heard a noise. I lifted my head from the pillow and listened to the noise. This time a stranger noise was heard. I have always been afraid of cockroaches. The moment I put on the lamp, I saw something passing by quickly. I held my shoe for a certain time and awaited, but it did not come out. I was very tired. I have put my shoe on the floor without putting off the lamp and lied on the bed. With another strange noise, I saw a huge cockroach (I had never seen such a huge cockroach before) coming behind the wall. Yes, believe me, I have never seen such a huge cockroach before. Its both eyes were red and its nose was black. Its head was like an ant's head, its legs were not visible but there were more than four.

1. What can be an appropriate title for the story?
A) The cockroach and the man
B) The shoes of the man
C) The eyes of the cockroach
D) A good hotel
2. Which one is correct according to the story?
A) The cockroach is in the bed.
B) The man is having a dream.
C) The cockroach is afraid of the man.
D) The man wants to sleep.
3. Which one is correct according to the story?
A) The man came from somewhere close by.
B) The hotel is fairly good and clean.
C) The cockroach does not allow the man to sleep.
D) The head of the cockroach is very big.

## Knife and Fork

One day, the teacher of our village gave me a letter and sent me to Kars city. After one day, I arrived at my teacher's house. I knocked on the door. A tall man with eyeglasses came out, took the letter and read it. Children came and surrounded me. The man led inside and took me inside the house. The children followed us with murmurs, they were talking to each other. I was shy. I was blushed. Their housemaid brought a plate of soup and put on the table for me. She put the knife, fork and spoon on the side of the plate. I was puzzled. I did not know why she gave the fork and knife to me. I had the soup with the spoon and put the fork and knife in my pocket. I thought they were toys for children and were given to me as gifts. Their housemaid was hulky and red faced. She never left watching me and saw that I put the fork and knife in my pocket. She went and told it to the owner of the house. The owner came and asked:
"Why did you put the knife and fork in your pocket?"
I said, "why, did not you give them to me as gifts?"

1. Why does he go to Kars?
A) Because he works there.
B) Because he takes away his teacher's letter.
C) Because his father and mother lives there.
D) Because his friends have gone there.
2. Which one is correct according to the story?
A) He plays together with the children.
B) He does not know what to do with the knife and fork.
C) The owner of the house is a teacher.
D) He is acquainted with the housemaid.
3. This story is about a child. $\qquad$
A) whose parents are in Kars.
B) who becomes friend with his teacher's children.
C) who does not like soup at all.
D) who mistakenly takes the knife and fork.

## APPENDIX G: TURKISH READING COMPREHENSION TEST

Türkçe Okuduğunu Anlama Testi
Adı Soyadi:.
Sinifi:.....
Her bir okuma parçasını dikkatlice okuyun ve sorulan sorulara en uygun yanıtın verildiği seçeneği işaretleyin.

İstanbul'un şehir yapısı ve şekli sürekli değişmektedir. Şehirde bulunan ilçeler kendi başlarına il gibi olmuşlardır ve bu ilçeler birçok ilden daha büyük nüfusa sahiptirler. Son yıllarda inşa edilen çok yüksek yapılar, nüfusun hızlı büyümesi göz önüne alınarak yapılmışlardır. Şehrin hızla genişlemesinden dolayı konutlaşma, genellikle şehir dışına doğru ilerlemektedir. Şehrin sahip olduğu en yüksek çok katlı ofis ve konutlar Avrupa yakasında bulunmaktadır. Türkiye'nin en büyük şirket ve bankalarının önemli bir kısmı bu bölgede bulunmaktadır. Diğer yandan son zamanlarda özellikle Anadolu yakasında konutların yapımına hız verilmiştir. Bu yakada, son yıllarda gerçekleşen nüfus büyümesinin en büyük faktörü Anadolu'dan gelen göçtür.

1. Parça için en uygun başlık hangisi olabilir?
A) İstanbul'un Mimarisi
B) İstanbul'a Yolculuk
C) İstanbul'un Nüfusu
D) İstanbul'a Bir Bakış
2. Parçaya göre așağıdakilerden hangisi doğrudur?
A) Anadolu yakasında, Avrupa yakasına göre daha yüksek binalar vardır..
B) Son yollarda şehirdeki konutlaşma daha çok şehir içlerine doğru kaymıştır.
C) Şehirdeki nüfusun büyüme hızı son yıllarda durmuştur.
D) İstanbul'un ilçeleri birçok ilden daha kalabalıktır.
3. Aşağıdakilerden hangisi parçadan çıkarılabilecek bir sonuçtur?
A) İstanbul'un nüfusu göç yüzünden artmaktadır.
B) Büyük şirket ve banka binalarının çoğu Anadolu yakasındadır.
C) İstanbul'un bankalarının hepsi Avrupa yakasındadır.
D) Avrupa yakasındaki konutlar İstanbul'un nüfus sorununu çözmüştür.

## Akad İmparatorluğu'nun Çöküşü

Dünyadaki ilk imparatorluk, Akad adı altında 4300 yıl kadar önce Dicle ve Fırat nehirlerinin arasında kurulmuştu. Yine Akad olarak bilinen ve günümüz Bağdat kentinin hemen güneyinde yer aldığ düşünülen kentten yönetilen bu imparatorluğun hâkimiyet alanı kuzeyde günümüz Suriye'sine, batıda Anadolu'ya ve doğuda İran'a kadar uzanıyordu. İyi organize olmuş ve iyi silahlanmış olan Akadlar, sonuç olarak varlıklıydı da. O dönemden kalma metinlerde nadir ahşaplardan değerli metallere, uzak diyarlardan başkente akan zenginlikler anlatılıyor. Ancak Akad İmparatorluğu, kuruluşunun üzerinden yüzyıl geçtikten sonra, hızla çöktü. Akademik çevreler, imparatorluğun çöküş nedenini uzun yıllar boyunca politikaya bağladı. Ama on yıl kadar önce, göl ve okyanus tabanlarından alınan örnekleri inceleyen iklimbilimciler, tam da imparatorluğun dağıldığı dönemlerde bölgedeki yağış miktarının çarpıcı biçimde düştüğünü ortaya çıkardı. Günümüzde, Akad İmparatorluğu'nun çöküşünün, yıkıcı bir kuraklığa bağlı olduğu düşünülüyor.

1. Parça ile ilgili aşağıdakilerden hangisi söylenebilir?
A) Akadlarda en çok madencilik gelişmişti.
B) Akadların başkenti Bağdat'tı.
C) Akadlar milattan önce kurulmuştur.
D) Akad İmparatorluğu İran'da kurulmuştur.
2. Parça ile ilgili aşağıdakilerden hangisi doğrudur?
A) Akad İmparatorluğu sadece 100 yıl yaşamıştır.
B) Akadların hakimiyet alanı bugünkü Suriye ile sınırlı kalmıştır.
C) Son araştırmalar Akadlar'ın kuraklık çekmediğini göstermiştir.
D) Akadların ordusu güçlü değildi.
3. Aşağıdakilerden hangisi parçadan çıkarılabilecek bir sonuçtur?
A) Akadlar bir savaşta yenilerek yıkılmıstır.
B) Akadlarda ahşap üreticiliği çok yaygındı.
C) Akadlar varlıklı bir imparatorluk olmuştur.
D) Akadlar politik nedenlerle çökmüştür.

## Demirciler Çarşısı Cinayeti

Dünyayı dolaşan genç adam güzel bir şehre geldi. Gözleri Emir Sultan'n gözlerine benzerdi. Kaşları çatık, rengi yanık sarı, kalın dudakları soluk. İnce, uzun boylu. Erkeğin yakışıklısı dünyadaki en güzel yaratıktır. Dünyada bir arap atının tayı güzel olur, bir de erkeğin yakışıklısı. Genç adam atından indi, baktı ki bu şehir başka, öteki şehirlere hiç benzemiyor. Şehrin insanları dünyanın en kanı sıcak, en cana yakın insanları. Konuk için dersen deli divane oluyorlar. Fukarası yok gibi, zengini de cömert. Bet bereket dersen yedi iklim dört bucaktan taşıyor. Bütün şehrin insanlarının yüzyıllardan beri büyük bir mutluluk içinde oldukları besbelli. Bura halkının hiç mi hiç bir şeyden şikayetleri yok. Bir şikayetleri varsa o da ölümden. Herhal ölüm bile güzel olur bu şehirde. Yolcu böyle düşündü.

1. Yolcu ile ile ilgili aşağıdakilerden hangisi söylenebilir?
A) Esmerdir.
B) Uzun boyludur.
C) İnce dudaklıdır.
D) Yaşlıdır.
2. Bahsedilen şehir ile ilgili aşağıdakilerden hangisi söylenebilir?
A) Çok fakir bir şehirdir.
B) Misavirperver insanları vardır.
C) Bir çok arap atı yaşamaktadır.
D) Şehirdeki insanlar ölümden korkmamaktadır.
3. Parçada geçen "Bet bereket" sözü ile anlatılmak istenen hangisidir?
A) Mutluluk
B) Mevsimler
C) Bahçeler
D) Verimlilik

## Yaşlı Kadın

Bir kadın, yaşlı ufak, kırış kırış. Durağın kaldırımına çömelmiş. Kalkmak için davrandı, olmadı. Yeniden daha üstün bir güçle yekinip kalktı. Otobüse binecekti besbelli, titreyen kupkuru eliyle elektrik direğine tutundu. Her halinden belliydi otobüse bineceği. Duraktaki bir genç yardım etti. Otobüstekiler de damarları firlak kupkuru ellerinden çekip otobüse aldılar. Yer verdiler. Oturdu. Ayakta dikilmekte olduğum yerin tam karşısındaki koltuğa oturmuştu. Sağ göz kıyıları çepeçevre mordu, mosmor. Karaları hayli ağarmış gözleriyle çevresine korkuyla bakıyordu. Belliydi ki pek göremiyor. Korkaktı. Yenilmişti. Bitikti. Bu dünyada kendini misafir saydığı belliydi her halinden.

1. Parçada anlatılanlara göre aşağıdakilerden hangisi doğrudur?
A) Kadın elindeki bastonla rahatça yürüyebilmektedir.
B) Kadın etrafını iyi görmektedir.
C) Kadın otobüsü beklerken kaldırıma çömelmiştir.
D) Yaşı olmasına rağmen hâlâ hareketlidir.
2. Parça ile ilgili aşağıdakilerden hangisi doğrudur?
A) Kadın yaşlı olmasına rağmen iri yarı bir kişidir.
B) Kadın durakta tek başına kalmıştır.
C) Otobüstekiler kadına yardım etmişlerdir.
D) Yaşlı kadın yaşama sevinci ile doludur.
3. Aşağıdakilerden hangisi parçadan çıkarılabilecek bir sonuçtur?
A) Yaşı kadın neşe içindedir.
B) Otobüste yaşlı kadın yazarla sohbet etmektedir.
C) Kadın hayatının sonuna yaklaştığını düşünmektedir.
D) Yazar otobüste kadının karşısında oturmaktadır.

# APPENDIX H: ENGLISH READING COMPREHENSION TEST <br> İngilizce Okuduğunu Anlama Testi <br> Adı Soyadi:........................................ <br> Sinifi:...... <br> Her bir okuma parçasını dikkatlice okuyun ve sorulan sorulara en uygun cevabın verildiği seçeneği işaretleyin. 

Scotland is in the north of the Great Britain. The Atlantic Ocean is on the west and the North Sea on the east. Some people in Scotland speak a different language. Its name is Gaelic.

There are five million people in Scotland. Edinburgh is the capital of Scotland and it is the most famous city. Scotland has many high mountains; the highest one is called 'Ben Nevis'. In the south of Scotland, there are a lot of sheep. A long time ago, there were many forests, but now there are only a few. Scotland is only a small country, but it is quite beautiful.

1. What is the best title for this story?
A) People from Scotland
B) Importance of Scotland
C) Economy of Scotland
D) Information about Scotland
2. Which one is correct according to the text?
A) Scotland is in the south of Great Britain.
B) 'Ben Nevis' is a city in Scotland.
C) There is only one language spoken in Scotland.
D) There are many high mountains in Scotland.
3. Which one is correct according to the text?
A) There are many sheep in the north of Scotland.
B) There are more forests in Scotland now.
C) There are five million people living in Edinburgh.
D) Scotland is between the Atlantic Ocean and the North Sea.

## UFOs - Do They Exist?

UFO is 'unidentified flying object'. They are usually known as flying saucers, because people generally think that they look like the shape of a saucer. The first UFO was seen in 1947 by an American pilot, but experts decided that it was a trick of the light. Some people saw something in the sky, for example a plane, and thought that they saw an UFO. In 1978, a pilot reported a collection of UFOs near the coast of New Zealand. A television cameraman travelled with the pilot and filmed the UFOs. Scientists later discovered that in this case they were lights on boats fishing in the sea.

1. This text is generally about $\qquad$
A) pilots travelling with planes
B) unknown objects in the sky
C) a television program about planes
D) people living in the sky
2. You can find this text in a $\qquad$
A) dictionary
B) science book
C) literature book
D) travel guide
3. Which one is correct according to the text?
A) UFOs can only go under the sea.
B) UFO means unidentified flying objects.
C) The first UFO was reported in 1978.
D) There are a lot of UFOs in New Zealand.

## Christopher Columbus and the New World

On August 3, 1492, Christopher Columbus set sail from Spain to find a new route to India, China and Japan. At this time most people thought you would fall off the edge of the world if you sailed too far. But, sailors such as Columbus had seen how a ship disappeared as it went away. For Columbus this meant that the world was round. He lied to his men about the distance they travelled each day. He did not want them to think that he did not know exactly where they were going. Finally, on October 12, 1492, Columbus and his men landed on a small island he named San Salvador. Columbus believed he was in Asia, but he was actually in the Caribbean.

1. We understand from the passage that Christopher Columbus was $\qquad$
A) in Asia for 2 months
B) born in 1492
C) from Caribbean
D) a sailor
2. Which one is correct according to the text?
A) Columbus started sailing from Asia to go to Spain.
B) Columbus was trying to find a new way to America.
C) Columbus reached India, China and Japan by sailing.
D) Columbus believed that the world was round.
3. On October 12, 1492, Christopher Columbus reached $\qquad$
A) China
B) Japan
C) San Salvador
D) Spain

In a small Cuban village, there was an old fisherman called Santiago, he was experienced, brave, optimistic, and self-confident. Santiago had an assistant whose name was Manolin; they loved each other like a father and son and they were going to fishing together. Some fishermen were making fun of the old man. They thought that he was an unlucky man because he did not catch a fish in about eighty-four days, but others who knew him for a long time felt so sorry for him. As a result, Manolin couldn't earn enough money and his parents did not want the little boy to work with Santiago. They wanted their son to look for another boat. The little Manolin felt so sad and depressed. He was only five years old when he first started to work with Santiago. So, he liked him like his father. He learned everything about fishing from Santiago. Therefore, Manolin was very loyal to Santiago. However, the young boy had to listen to his parents. He was no longer a part of Santiago's team.

1. This text is generally about $\qquad$
A) a fisherman and a boy
B) a small Cuban village
C) a big fish and a boy
D) a dangerous adventure
2. Which one is correct according to the text?
A) Santiago is a lucky fisherman.
B) Manolin's family is very rich.
C) Manolin learned fishing from Santiago.
D) Santiago is Manolin's father.
3. You can understand from the text that $\qquad$
A) Manolin's family wanted him to work with Santiago.
B) Santiago and Manolin live in Cuba.
C) Santiago found another boat for Manolin.
D) Manolin has known Santiago for 84 days.

## APPENDIX I: KURDISH MORPHOLOGICAL AWARENESS TEST

## Kürtçe Sözcük Türetme Testi

Adı Soyadı: $\qquad$ Sinifi:.....

Örnek:
a. (heval) $\mathrm{J}_{1}$ bo mın $\qquad$ gelek muhim e. $\mathrm{J}_{1}$ bo min hevalti gelek muhim e
b. (dahol) Bavê Hesen $\qquad$ e. Bavê Hesen daholvan e.

İsim + sonek $=$ İsim

1. (dijmın) Hemi kes dızane $\qquad$ gelek xirab e.
2. (temaşe) Filmê kurdi yê nû hemi $\qquad$ kêfxweş kırın.
3. (bıra) Mıletê me şer naxwaze, tenê $\qquad$ dixwaze.
4. (mêr) Şerkırın $\qquad$ nine.
5. (mêvan) Nav mıletê me de $\qquad$ gelek mûhım e.
6. (xort) Êdi ew $\qquad$ û mêrxasiya zemanê berê nema.
7. (nêçır) Bavê Ehmed $\qquad$ e.
8. (hosta) $\mathrm{J}_{1}$ bo vê işi $\qquad$ lazım e.
9. (şêr) Selahaddınê Eyubi bı $\qquad$ şer kir.
10. (dost) Dı nav hevalan de jı her tıştê mûhimtır $\qquad$ ye.
11. (berx) Apê Remezan $\qquad$ e.
12. (aş) Tu dıkari xwarınên geleki xweş çêki, heke tu $\qquad$ bi.

İsim + sonek $=$ Sifat

1. (birin) Darek ket ser mın, ez $\qquad$ kırım.
2. (huner) Ez dixwazım bibım $\qquad$
3. (hesin) Apê Gulcanê $\qquad$ e.
4. (evin) $\mathrm{J}_{1}$ halê Murad diyar e ku ew $\qquad$ e.
5. (vir) Qet bawerıya mın jê nayê jı ber ku ew gelek $\qquad$ e.
6. (aqıl) Mıhê gelek xwendiye, $\qquad$ gundê me ew e.
7. (hewce) Mêrıkê kal jı bo pere $\qquad$ e.
8. (ziv) Gustilka mın $\qquad$ e.
9. (şer) Huseyin kurekê gelek $\qquad$ e.
10. (zêr) Bavê mın dê saeta xwe ya $\qquad$ bide min.
11. (ferman) Selaheddın Eyyubi $\qquad$ bû.
12. (fêdi) Osman kureki gelek $\qquad$ bû.

Önek + Fiil $=$ İsim veya Fiil + sonek $=$ İsim

1. (nıvis) Hevalê mın dıxwaze bıbe $\qquad$
2. (perwerde) Dı gundê me de gelek talebe hene, lê $\qquad$ ninın.
3. (xwebûn) Tu kes naxwaze det jı $\qquad$ û azadiya xwe bikêşe.
4. (xwar )Ku hûn nexebıtın, ez jı bo we $\qquad$ çênakım.
5. (şûşt) Ji cılên mın re $\qquad$ ne lazım e.
6. (dan) Em ê rojek dın dîsa werın, çimki ev $\qquad$ ne dılê mın bû.
7. (lêdan) Gelek kesan jı bo vi işi, dosyeyên xwe yên $\qquad$ amade kırın.
8. (xwend) Ez neşêm rehetı İngılızce xeber bıdım, lê $\qquad$ rehet e.
9. (cot) Xalê min $\qquad$ e.
10. (hılbıjart) Lı Tırkıyeyê her pênç salan carekê $\qquad$ çêdıbın.
11. (berhev) Hevalê mın $\qquad$ e.
12. (mir) $\qquad$ jı halê me çêtır e.

Önek + Fiill $=$ Sıfat veya Fiil + sonek $=$ Sıfat

1. (ket) Feqirê dev jı heyatê berdabû, mıroveki $\qquad$ bû.
2. (lewit) Cilên zarokan $\qquad$ ne.
3. (bez)Hespa Sor $\mathrm{j} ı$ hemu hespan baştır dıbezıya, hespeki $\qquad$ bû.
4. (zan) Apê Musa jı hemi tıştan fahm dıkır, insaneki $\qquad$ bû.
5. (bawer) Insanên ku jı xwe $\qquad$ ın, nıkarın çu tıştan bıkın.
6. (veşart) Hemi perê mın $\qquad$ bûn.
7. (hêj) Insanên gundê me hemi gelek $\qquad$ ne.
8. (fam) Ismaıl çu tiştekê hin nabe, lawıkeki $\qquad$ e.
9. (peht) Em geleki bırsi bûn, lê belê naneke $\qquad$ tunebû em bixwin.
10. (guhdar)Murad hiç guhê xwe nade mın, lawıkeki $\qquad$ e.
11. (west) Iro kerê me zêde bar kêşaya, nıha gelek $\qquad$ ye.
12. (nas) Van rojan lı mehala me çend kesên $\qquad$ dıgerın.

Kürtçe Sözcük Çözümleme Testi
Örnek: a. (hevalti) $\mathrm{J}_{1}$ ber nexweşıya mın çend ___ hatıbûn mala me.
$\mathrm{J}_{1}$ ber nexweşıya mın çend heval hatıbûn mala me.
b. (daholvan) Bavê Hesen jı wi ra $\qquad$ kıribû. Bavê Hesen jı wi ra dahol kıribû.

İsim + sonek $=$ İsim
1.( bilûrvan) Şıvanê me jı şehrề jı xwe ra du $\qquad$ anibûn.
2. (rêwiti) L1 duraxa otobûsan çend $\qquad$ hebûn.
3. (baxçevan) Lı nêzıkê mehala me du $\qquad$ hene.
4. (xayinti) J $\mathrm{J}_{1}$ bawer neke, ew insaneki $\qquad$ e.
5. (pırani) Lı gundê me kuçık û pısik $\qquad$ 1 n .
6. (bêrivan) Keçık her sıbe dıçe $\qquad$
7. (neyarti) Ez qet jı insanên $\qquad$ hej nakım.
8. (kêmani) $\mathrm{J}_{1}$ bo vê işi deh insan $\qquad$ in.
9. (mırovati) Li ber derıyê mexazayê du $\qquad$ disekının.
10. (bûkani) Keçıka cıwan dıxwaze zû bıbe $\qquad$
11. (şervan) Dı nav gundıyan de $\qquad$ derket.
12. (mehani) Bırayê mın her $\qquad$ dıçe Mardinê.

İsim + sonek $=$ Sıfat

1. (hişmend) Welleh, tu $\qquad$ nine serê te da.
2. (deyndar) Mamê mın jı bavê mın hınek $\qquad$ xwastın.
3. (bawermend) Ez qet $\qquad$ ninim ku ew işêv bên mala me.
4. (derewker) Hemu gotınên wi zılamê $\qquad$ 1 n.
5. (avdar) Ka bısekıne! Em şûşeyek $\qquad$ vexwin.
6. (behremend) $\mathrm{J}_{1}$ bo vê işê hınek $\qquad$ lazım e.
7. (bawerker) Hewa gelek sar e. Ez $\qquad$ ım dê van rojana berf bê.
8. (berhemdar) Heta nıha Mehmed Uzun gelek $\qquad$ nıvisandıne.
9. (wêranker) Pişti şerê, hemi malên gundê me êdi $\qquad$ bubûn .
10. (biryarmend) Em mecbur in $\qquad$ wan qebul bikin.
11. (maldar) Niha dukana me de gelek $\qquad$ heye jı bo firotınê.
12. (belavker) Çiroka Siyabend û Xeçê nav mılet de gelek $\qquad$ e.

Önek + Fiil $=$ İsim veya Fiil + sonek $=$ İsim

1. (ajokar) Duh birayê mın erebe $\qquad$
2. (serhıldan) Lawık jı erdê çend kuç $\qquad$ û avêtın.
3. (axaftın) Dı cıvinê de ewıl bavê mın $\qquad$
4. (belavkar) Xebera nexweş dı nav mılet de gelek zû $\qquad$ bû.
5. (serjêkirin) Lı bexçeyê mın jı xwe ra hınek sêv $\qquad$
6. (gotın) Mın hê ji nedızanıya ka muelımê me çı $\qquad$
7. (amadekar) $\mathrm{J}_{1}$ bo daweta birayê mın, hemi tışt $\qquad$ ne.
8. (serdan) Jınıkê çend perçe goşt $\qquad$ pısikê.
9. (vexwarın) Hemi kesê çay $\qquad$
10. (xwendekar) Min duh kitêbek $\qquad$
11. (serketın) Hemi kıtêbên mın jı ber mılên mın $\qquad$
12. (ditın) Min iro mala muelımê xwe $\qquad$

Önek + Fiil $=$ Sıfat veya Fiil + sonek $=$ Sıfat

1. (şkesti) Berdexa avê dı destê mın de $\qquad$
2. (nezan) Min hemi pırsên muelımê me $\qquad$
3. (kenok) Dıya mın jı mın re $\qquad$
4. (kuşti) Bavê mın iro gurek $\qquad$
5. (nerazi) Melayê me jı mın gelek $\qquad$ ye.
6. (xwenda) Xûşka mın iro tenê kıtêba xwe $\qquad$
7. (revok) Çawa ku kuçık hat, pısika me $\qquad$
8. (kelandi) Mın jı bo xwe av $\qquad$
9. (gerok) Derya dûh lı parkê pıçekê $\qquad$
10. (gırti) Brayê mın jı golê masıyek mezın $\qquad$
11. (nemır) Bapirê mın sala çûyi $\qquad$
12. (nedıyar) Sınıfền zarokan iro $\qquad$ bûn.

Translation of the Kurdish Morphological Awareness Task
Word Derivation Task
Example: a. For me, friendship is very important.
b. Hasan's father is a drummer.

Noun + Suffix $=$ Noun

1. Everybody knows that hostility is very bad.
2. The new Kurdish films made all the audience happy.
3. Our people does not want fights, they only want brotherhood.
4. Fighting is not a manly manner.
5. Hospitality is very important among us.
6. The courage of old times does not exist anymore.
7. Ahmet's father is a shepherd.
8. For this job, expertise is required.
9. Selahaddin Eyyubi fought like lions.
10. Friendship is the most important thing among friend.
11. Ramazan's uncle is a sheepman.
12. You can prepare great dishes if you are a cook.

Noun + Suffix $=$ Adjective

1. A wood fell on me and wounded me.
2. I want to be an artist.
3. Gulcan's uncle is a blacksmith.
4. It is obvious that Murat is in love.
5. I do not believe because he is a liar.
6. Mihê reads a lot and he is the smartest person of our village.
7. The old man is in need of money.
8. My ring is argentine (silver made).
9. Huseyin is a very aggressive person.
10. My father will give me his golden watch.
11. Selahaddin Eyyubi was a commander.
12. Osman was a very shy person.

Prefix + Verb $=$ Noun or Verb + Suffix $=$ Noun

1. My friend wants to be an author.
2. There are many students but not teacher in our village.
3. Nobody wants to give up their freedom.
4. If you do not work, I will not prepare food for you.
5. My clothes do not need to be washed.
6. Let's come another time, this time was not very good.
7. Many people prepared their files of application for this job.
8. I cannot speak English fluently but reading is easy.
9. My uncle is a farmer.
10. The elections are held once every fifth year in Turkey.
11. My friend is a collector.
12. Even death is better than this situation.

Prefix + Verb $=$ Adjective or Verb + Suffix $=$ Adjective

1. The poor man abandoned his life, he was a fallen person.
2. The clothes of children are dirty.
3. The Red Horse was racing faster than the rests, it was a speedy horse.
4. Uncle Musa was knowledgeable about everything, he was a wise man.
5. People who are not self-confident cannot achieve anything.
6. All my money was concealed.
7. All the people of our village are very meritorious.
8. Ismail cannot learn anything, he is an ignorant person.
9. We were very hungry, but there was not a bread to eat.
10. Murat never listens to me, he is an inconsiderate person.
11. My donkey has lifted a lot of burden, it is very tired now.
12. A few strangers are wandering around in our neighborhood nowadays.

## Word Decomposition Task

Example: a. Because of my illness, the friends had come to our home.
b. Hasan's father had bought the drum from here.

Noun + suffix $=$ Noun

1. Our shepherd has brought two flutes from the city.
2. There were a few passengers at the bus station.
3. There are two gardens near our hose.
4. Do not trust him, he is a villain person.
5. Dogs and cats are abundant in our village.
6. The girl goes to milking every day.
7. I do not like hostile people at all.
8. For this job, at least ten people are needed.
9. Two persons are standing in front of the store.
10. The young girl wants to be a bride as soon as possible.
11. A fight happened among the villagers.
12. My brother goes to Mardin every month.

Noun + suffix= Adjective

1. You really do not have brain.
2. My uncle asked for some loans from my father.
3. I do not believe at all that they will come to our place tonight.
4. All words of this man are lies.
5. Let's stop a minute and have a glass of water!
6. For this job, a little bit craft is needed.
7. It is very cold. I do think it will snow nowadays.
8. Mehmed Uzun has written many works so far.
9. After the war, all the houses of the village were in ruins.
10. We have to accept their decision.
11. Now, there are many items to sell in our store.
12. The story of Siyabend and Xeçê is well-known among people.

Prefix + Verb $=$ Noun or Verb + Suffix $=$ Noun

1. Yesterday, my brother drove the car.
2. The boy picked up some stones and threw away.
3. My father spoke first in the meeting.
4. The bad news spread fast among the people.
5. In the garden, I have cut some apples off.
6. I was still unaware of what our teacher was saying.
7. For the wedding of my brother, everything is ready.
8. The woman gave some meat to the cat.
9. Everybody drank the tea.
10. I read a book yesterday.
11. All my books fell on the floor.
12. I have seen my teacher's house today.

Prefix + Verb $=$ Adjective or Verb + Suffix =Adjective

1. The water glass was broken in my hand.
2. I have answered all the questions of my teacher.
3. My mother laughed at me.
4. My father hunted a wolf today.
5. Our master is very pleased with me.
6. My sister has only read her book today.
7. The moment the dog came, the cat run away.
8. I have warmed the water for myself.
9. Derya wandered in the park yesterday.
10. My brother caught a fish from the lake.
11. My grandfather passed away last year.
12. The sections of the students have been identified today.

## APPENDIX J: TURKISH MORPHOLOGICAL AWARENESS TEST

Türkçe Sözcük Türetme Testi
Adı Soyadı: $\qquad$
a. (çiçek) Amcamın bir $\qquad$ dükkanı var.
Amcamın bir çicekci dükkanı var.
b. (hediye) Gittiğim yerlerden $\qquad$ eşya almayı çok severim. Gittiğim yerlerden hediyelik eşya almayı çok severim

İsim + sonek $=$ İsim

1. (kira) Bu daireye güvenilir bir $\qquad$ arıyoruz.
2. (göz) Dün kendime yeni bir $\qquad$ aldım.
3. (vatan) Ülkene faydalı bir $\qquad$ ol.
4. (asker) Kardeşim bir süredir $\qquad$ yapıyor.
5. (iş) Bu fabrikada çalışan iki $\qquad$ tanıyorum.
6. (yol) Otobüsten iki $\qquad$ indi.
7. (srr) Ablam bana her zaman iyi bir $\qquad$ oldu.
8. (kitap) Bu odaya daha küçük bir $\qquad$ koymaliyız.
9. (süt) Tereyağını bu sabah $\qquad$ getirdi.
10. (arka) Mehmetle kısa sürede $\qquad$ olduk.
11. (tuz) Masada $\qquad$ var mı?
12. (meslek) O bize her zaman yol gösteren iyi bir $\qquad$ olmuştur.

İsim + sonek $=$ Sıfat

1. (uygun) Bunlar öğretmenin hoşlanmadığ 1 $\qquad$ davranışlar.
2. (kavga) O adam kimseyle geçinemeyen, $\qquad$ biri.
3. (akıl) Oğlum kafası iyi çalışan $\qquad$ çocuktur.
4. (ses) Hasan derste pek konuşmayan $\qquad$ öğrencilerden biridir.
5. (neşe) Mehmet hep güler. O $\qquad$ bir insan.
6. (şüphe) Polisler $\qquad$ insanlardır.
7. (güç) Arkadaşın bu problemi de atlatır, o $\qquad$ biri.
8. (kir) Başka yerde oturalım. Burası çok $\qquad$ bir masa.
9. (tat) Çok kötü! Bu yediğim en $\qquad$ elma!
10. (yalan) O tanıdığım en $\qquad$ kişi.
11. (huy) Ahmet sürekli ağlayan $\qquad$ bir çocuk.
12. (şaka) O hep etrafindakileri güldüren, $\qquad$ biri.

Fiil + sonek=İsim

1. (böl) Bu şarkıda en sevdiğim $\qquad$ buras1.
2. (ört) Bu masa için daha büyük bir $\qquad$ gerekiyor.
3. (öv) Yaptığı güzel yemeklerle misafirlerinden bol $\qquad$ ald.
4. (seç) Sınıf başkanlığı için $\qquad$ yapılacak.
5. (dol) Dişime $\qquad$ yaptırdım.
6. (yaz) Bu $\qquad$ okunmuyor.
7. (sev) Çocuklar için en önemli şey $\qquad$ görmektir.
8. (tak) Hediye olarak altın $\qquad$ aldım.
9. (bak) Bu ev çok eski. Biraz $\qquad$ yapılmalı.
10. (sor) Bu cevaplamanız gereken bir $\qquad$ değil.
11. (doğ) Kadın birkaç saat içinde $\qquad$ yapacak.
12. (çal) En sevdiğim $\qquad$ gitardır.

Fiil + sonek $=$ Sifat

1. (boz) Aldığımız süpürge, $\qquad$ çıktı.
2. (kay) Dikkat et! $\qquad$ zemin!
3. (bat) Denizden çıkarılan $\qquad$ bir tekneymiş.
4. (yirt) Kartal $\qquad$ bir kuştur.
5. (çekin) Ali sınıfta pek konuşmayan, $\qquad$ birisi.
6. (üz) Televizyonda izlediklerimiz çok $\qquad$ olaylar.
7. (giriş) Hayatta daha başarılı olanlar genellikle $\qquad$ insanlardır.
8. (yor) Tarlada çalışmak $\qquad$ bir iş.
9. (aç) Bu saatte lokantalar $\qquad$ olmaz.
10. (geç) Ahmet bulduğu iş $\qquad$ işmiş.
11. (kır) Dün gece rüyamda $\qquad$ bir ayna gördüm.
12. (çalış) Ali sınıfın en $\qquad$ öğrencisi?

Türkçe Sözcük Çözümleme Testi
Örnek:
a. (çiçekçi)Amcam dükkanında $\qquad$ satıyor.
Amcam dükkanında çiçek satıyor.
b. (hediye) Gittiğim yerlerden arkadaşlar için $\qquad$ aldım.
Gittiğim yerlerden arkadaşlar için hediye aldım.

İsim + sonek $=$ İsim

1. (kayalık) Apartmanları inşa ettikleri zemin $\qquad$
2. (sesteş) Duyduğumuz kadife gibi yumuşacık bir $\qquad$
3. (kömürlük) Bu , kış için aldığımız $\qquad$
4. (saatçi) Bu bana aldığı yeni $\qquad$
5. (soydaş) Bu , ailemizin geldiği $\qquad$ !
6. (tarihçi) En sevdiğim ders $\qquad$
7. (odacı) Bu üç kişilik, geniş bir $\qquad$
8. (buzluk) Çocuğun dolaptan istediği şey $\qquad$
9. (sözcü) Hasan'ın arkadaşına söylediği kötü bir $\qquad$
10. (yoldaş) Burası otobüsün gittiği $\qquad$
11. (çiçeklik) En güzel hediye bir demet $\qquad$
12. (yurttaş) Ne güzel bir $\qquad$ !

İsim + sonek $=$ Sifat

1. (evsiz) Bu geniş bir $\qquad$
2. (yardımcı) İhtiyacım olan şey biraz $\qquad$
3. (susuz) Yaşamak için en gerekli şey $\qquad$
4. (kinci) Bu ne bitmeyen bir $\qquad$ !
5. (kararlı) Bu benim için zor bir $\qquad$
6. (akşamcı) Mezuniyet törenimiz bu $\qquad$
7. (azimli) Ali’nin okulda başarısının sırrı sahip olduğu $\qquad$
8. (çaresiz) Ameliyat en son $\qquad$ !
9. (suçlu) Para çalmak büyük bir $\qquad$
10. (inatçı) Bu gereksiz bir $\qquad$ !
11. (habersiz) Bu kutlamamız gereken bir $\qquad$
12. (öfkeli) Olaylara neden olan şey $\qquad$ !

Fiil + sonek $=$ İsim

1. (sorgu) Bilmediğin şeyleri öğretmene $\qquad$
2. (sayım) Yüze kadar $\qquad$
3. (saygı) Her zaman küçüklerini sev, büyüklerini $\qquad$
4. (yapı) Ödevlerini lütfen zamanında $\qquad$
5. (tutum) İpin bu ucunu sen $\qquad$
6. (korku) Yalan söyleyen kişilerden $\qquad$ !
7. (bulgu) Kaybettiğin atkımı ara ve $\qquad$
8. (tartı) Meyveleri terazide $\qquad$
9. (çözüm) Şimdi bu problemleri $\qquad$
10. (görgü) Müdür seni çağırıyor. Git onu $\qquad$
11. (ölçü) Yemek yaparken kullanacağın malzemeyi $\qquad$
12. (kesim) Banyodan sonra uzun tırnaklarını $\qquad$

Fiil + sonek $=$ Sifat

1. (kesik) Bana bir dilim ekmek $\qquad$
2. (yakıcı) Akşam oldu, ışıkları $\qquad$
3. (değişken) Okula gitmeden kıyafetini $\qquad$
4. (yırtık) Bir parça bez $\qquad$
5. (çekici) Sandalyeni biraz öne $\qquad$
6. (unutkan) Sana söylediklerimi $\qquad$
7. (kalıcı) Lütfen gitme, biraz daha $\qquad$
8. (üretken) Boş durma, sen de $\qquad$
9. (uyarıcı) Hata yaptığımda lütfen beni $\qquad$
10. (yarık) Odunları baltayla $\qquad$
11. (ezik) Püre yapmak için patatesleri iyice $\qquad$
12. (konuşkan) Sinav erteletmek için öğretmenle $\qquad$

## APPENDIX K: ENGLISH MORPHOLOGICAL AWARENESS TEST

İngilizce Sözcük Türetme Testi
Adi Soyadı: $\qquad$
Örnek:
a. (art) Șener Șen is an $\qquad$ .
Şener Şen is an artist.
b. (work) My father is a $\qquad$ .
My father is a worker.
İsim + sonek $=$ İsim

1. (guitar) My best friend is a young $\qquad$
2. (music) David's mother is a $\qquad$
3. (library) The man works as a $\qquad$
4. (electric) My mother called an $\qquad$
5. (dent) For your toothache, you should see a $\qquad$
6. (plumb) The man working in the bathroom is a $\qquad$
7. (tour) John stayed in Turkey as a $\qquad$
8. (politic) Brian was a successful $\qquad$
9. (farm) The man who raises tomatoes is an old $\qquad$
10. (garden) My father works as a $\qquad$ in a villa.
11. (reception) Susan works as a $\qquad$ in a hotel.
12. (law) My friend wants to be a $\qquad$ in the future.

İsim + sonek $=$ Sıfat

1. (beauty) Mardin is a very $\qquad$ city.

2 (courage) My brother is a $\qquad$ person.
3. (cheer) My sister is a very $\qquad$ person.
4. (poison) Toy can't eat these plants. They are are $\qquad$
5. (option) You don't have to take this course. It is $\qquad$
6. (harm) Cigarette is $\qquad$ for your health.
7. (logic) My teacher is a $\qquad$ person.
8. (humour) Cem is very $\qquad$ person.
9. (profession) He is a $\qquad$ football player.
10. (danger) The mount Ararat is a $\qquad$ mountain.
11. (nation) The $19^{\text {th }}$ May is a $\qquad$ holiday.
12. (respect) Our students are very $\qquad$ to their teachers.

Fiil + sonek $=$ İsim

1. (explain) The teacher did not like the student's $\qquad$
2. (treat) The patients in this hospital get good $\qquad$
3. (write) His grandfather was a famous $\qquad$
4. (design) This young woman is our new graphic $\qquad$
5. (sing) Zeynep is a wonderful $\qquad$
6. (improve) The students in the English class showed a good $\qquad$
7. (swim) My brother is a very successful $\qquad$
8. (agree) The football player signed an expensive $\qquad$
9. (prepare) You can't pass an exam without $\qquad$
10. (protect) Winter tires in cars give extra $\qquad$
11. (announce) The passengers did not hear the $\qquad$
12. (decide) The family did not like the doctor's $\qquad$
Fiil + sonek $=$ Sıfat
13. (care) Taxi drivers in Turkey are not very $\qquad$
14. (play) This baby is very $\qquad$
15. (act) Some volcanoes in Italy are $\qquad$
16. (talk) Murat never shuts up. He is was very $\qquad$
17. (impress) The paintings in this museum are very $\qquad$
18. (suit) For me, Fridays are not $\qquad$
19. (forget) My grandfather became very $\qquad$
20. (inform) This Istanbul brochure is very $\qquad$
21. (use) This dictionary is very $\qquad$ .
22. (achieve) The goals you set are not $\qquad$
23. (enjoy) This computer game is very $\qquad$
24. (afford) This car is not too expensive. It is $\qquad$

İngilizce Sözcük Çözümleme Testi
Örnek: a. (scientist) $\begin{array}{ll}\text { I like the } \\ \text { I like the science lesson best. }\end{array}$
b. (worker) They ___ in a small company. They work in a small company.
İsim + sonek $=$ İsim

1. (novelist) For me, this is Orhan Pamuk's best $\qquad$
2. (comedian) My brother likes $\qquad$ films.
3. (banker) Aylin's mother works in a $\qquad$
4. (psychologist) My brother wants to study $\qquad$
5. (optician) Murat has a $\qquad$ shop.
6. (dancer) In university, Zeynep studied $\qquad$
7. (cartoonist) Tom ve Jerry is my favourite $\qquad$
8. (mathematician) My most difficult lesson is $\qquad$
9. (prisoner) The police put the thief in the $\qquad$
10. (biker) My mother bought me a $\qquad$
11. (physician) In university, I want to study $\qquad$
12. (violinist) He is good at playing $\qquad$
İsim + sonek $=$ Sıfat
13. (economical) We sold our house for $\qquad$ reasons .
14. (ambitious) We learned many things from her $\qquad$
15. (organizational) My father works in a big $\qquad$
16. (peaceful) For a better world, everybody needs more $\qquad$
17. (traditional) In Turkey, collecting sugar in Bayram is a $\qquad$
18. (harmful) Don't worry. It won't do you any $\qquad$
19. (powerful) He doesn't have the $\qquad$ to walk.
20. (advantageous) To speak English is a great $\qquad$
21. (painful) I feel a great $\qquad$ on my neck.
22. (religious) An important part of life in villages is $\qquad$
23. (intentional) Thank you for your good $\qquad$
24. (mysterious) The old man's death is still a $\qquad$

Fiil + sonek $=$ İsim

1. (establishment) They want to $\qquad$ a modern institute.
2. (information) They should $\qquad$ people about danger of smoking.
3. (consumer) People $\qquad$ a lot of food every day.
4. (introduction) I want to $\qquad$ you my new friend.
5. (achievement) I really want to $\qquad$ in the exam.
6. (contribution) There are many projects that you can $\qquad$ .
7. (cleaner) I need to $\qquad$ my room.
8. (believer) You have to $\qquad$ in yourself to be successful.
9. (punishment) Parents shouldn't $\qquad$ their children for their every mistake.
10. (trainer) My brother wants to $\qquad$ his dog.
11. (production) They $\qquad$ a lot of books for children every year.
12. (management) You need a good assistant to $\qquad$ this team.

Fiil + sonek $=$ Sıfat

1. (helpful) I came here to $\qquad$ you.
2. (understandable) First, you need to $\qquad$ the problem.
3. (attractive) Mary's clothes will $\qquad$ all the attentions in the party.
4. (hopeful) I $\qquad$ I can see you again.
5. (preferable) I $\qquad$ watching TV to going out tonight.
6. (collective) Sarah wants to $\qquad$ money for poor people.
7. (purposeful) Our $\qquad$ is to make your job easy.
8. (reliable) I always $\qquad$ on my mother decisions.
9. (creative) I think Dennis will $\qquad$ wonderful pictures in the future.
10. (predictable) The scientists $\qquad$ that people will go to the space easily.
11. (thankful) I want to $\qquad$ you for your good friendship.
12. (selective) I want to $\qquad$ a good present for John's birthday.

## APPENDIX L: PICTURE DESCRIPTION SCORING RUBRIC



## APPENDIX M: ANOVA RESULTS OF PROFICIENCY

Table 7. Proficiency Tests of Within-Subjects Effects

| Source |  | Type III Sum of <br> Squares | df | Mean <br> Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Proficiency | Sphericity Assumed | 64136.937 | 2 | 32068.468 | 534.846 | .000 |
|  | Greenhouse-Geisser | 64136.937 | 1.847 | 34715.691 | 534.846 | .000 |
|  | Huynh-Feldt | 64136.937 | 1.917 | 33563.148 | 534.846 | .000 |
|  | Lower-bound | 64136.937 | 1.000 | 64136.937 | 534.846 | .000 |
| Error(Proficiency) | Sphericity Assumed | 5875.917 | 98 | 59.958 |  |  |
|  | Greenhouse-Geisser | 5875.917 | 90.527 | 64.908 |  |  |
|  | Huynh-Feldt | 5875.917 | 93.916 | 62.566 |  |  |
|  | Lower-bound | 5875.917 | 49.000 | 119.917 |  |  |

Table 8. Proficiency Mauchly's Test of Sphericity

| Within Subjects Effect | Mauchly's W | Approx. Chi-Square | df | Sig. | Epsilon ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | GreenhouseGeisser | HuynhFeldt | Lower -bound |
| Proficiency | . 917 | 4.135 | 2 | . 126 | . 924 | . 958 | . 500 |

## APPENDIX N: PEARSON CORRELATION COEFFICIENT RESULTS OF PROFICIENCY

Table 9: Inter-correlations between Proficiency Scores

|  | Kurdish Prof. | Turkish Prof. | English Prof. |
| :---: | :---: | :---: | :---: |
| Kurdish Prof. | -- | $.734^{* *}$ | $.596^{* *}$ |
| Turkish Prof. | -- | $.507^{* *}$ |  |
| English Prof. |  | -- |  |
| $* *$. Correlation is significant at the 0.01 level (2-tailed). |  |  |  |

## APPENDIX O: ANOVA RESULTS OF READING COMPREHENSION

Table 10. Reading Comprehension Tests of Within-Subjects Effects

| Source |  | Type III Sum <br> of Squares | df | Mean <br> Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Reading Comp. | Sphericity Assumed | 17756.481 | 2 | 8878.241 | 51.993 | .000 |
|  | Greenhouse-Geisser | 17756.481 | 1.988 | 8829.676 | 51.993 | .000 |
|  | Huynh-Feldt | 17756.481 | 2.000 | 8878.241 | 51.993 | .000 |
|  | Lower-bound | 17756.481 | 1.000 | 17756.481 | 51.993 | .000 |
| Error(Reading | Sphericity Assumed | 16734.259 | 98 | 170.758 |  |  |
| Comp.) | Greenhouse-Geisser | 16734.259 | 97.436 | 171.747 |  |  |
|  | Huynh-Feldt | 16734.259 | 98.000 | 170.758 |  |  |
|  | Lower-bound | 16734.259 | 49.000 | 341.515 |  |  |

Table 11. Reading Comprehension Mauchly's Test of Sphericity

| Within Subjects Effect | Mauchly'sW | Approx. Chi-Square | df | Sig. | Epsilon ${ }^{\text {a }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | GreenhouseGeisser | HuynhFeldt | Lowerbound |
| Reading Comp. | . 994 | . 279 | 2 | . 870 | . 994 | 1.000 | . 500 |

# APPENDIX P: PEARSON CORRELATION COEFFICIENT RESULTS OF READING COMPREHENSION 

Table 12: Inter-correlations between Reading Comprehension Scores

|  | Kurdish <br> Reading Comp. | Turkish <br> Reading Comp. | English <br> Reading Comp. |
| :--- | :---: | :---: | :---: |
| Kurdish Reading Comp. | -- | $.623^{* *}$ | $.597^{* *}$ |
| Turkish Reading Comp. |  | -- | $.631^{* *}$ |
| English Reading Comp. |  | -- |  |

[^13]
# APPENDIX Q: PEARSON CORRELATION COEFFICIENT RESULTS OF MORPHOLOGICAL AWARENESS 

Table 13. Inter-correlations between Morphological Awareness Scores

|  | Kurdish Morph. Awar. | Turkish Morph. Awar. | English Morph. Awar. |
| :--- | :---: | :---: | :---: |
| Kurdish Morph. Awar. | -- | $.395^{* *}$ | $.373^{* *}$ |
| Turkish Morph. Awar. | -- | $.441^{* *}$ |  |
| English Morph. Awar. | -- |  |  |
| $* *$. Correlation is significant at the 0.01 level (2-tailed). |  |  |  |

## APPENDIX R: ANOVA RESULTS OF MORPHOLOGICAL AWARENESS

Table 14. Morphological Awareness Tests of Within-Subjects Effects

| Source |  | Type III Sum <br> of Squares | df | Mean <br> Square | F | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Morph. Awar. | Sphericity Assumed | 98694.911 | 2 | 49347.455 | 351.370 | .000 |
|  | Greenhouse-Geisser | 98694.911 | 1.757 | 56187.855 | 351.370 | .000 |
|  | Huynh-Feldt | 98694.911 | 1.818 | 54288.148 | 351.370 | .000 |
|  | Lower-bound | 98694.911 | 1.000 | 98694.937 | 351.370 | .000 |
| Error(Morph. Awar.) | Sphericity Assumed | 13482.510 | 96 | 140.443 |  |  |
|  | Greenhouse-Geisser | 13482.510 | 84.313 | 159.911 |  |  |
|  | Huynh-Feldt | 13482.510 | 87.363 | 154.505 |  |  |
|  | Lower-bound | 13482.510 | 48.000 | 280.886 |  |  |

Table 15. Morphological Awareness Mauchly's Test of Sphericity

| Within Subjects | Mauchly's | Approx. | df | Sig. |  | Epsilon $^{\text {a }}$ |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Effect | W | Chi- |  |  | Greenhouse- | Huynh- | Lower- |
|  |  | Square |  |  | Geisser | Feldt | .878 |
| Morph. Awar. | .861 | 7.013 | 2 | .030 | .909 | .500 |  |

## APPENDIX S: PEARSON CORRELATION COEFFICIENT RESULTS OF READING COMPREHENSION AND MORPHOLOGICAL AWARENESS

Table 16. Inter-correlations between Reading Comprehension and Morphological Awareness Scores

|  | Kurdish <br> Reading <br> Comp. | Kurdish <br> Morph. <br> Awar. | Turkish <br> Reading <br> Comp. | Turkish <br> Morph. <br> Awar. | English <br> Reading <br> Comp. | English <br> Morph. <br> Awar. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kurdish Reading Comp. | -- | .456** | . 623 ** | . 307* | . $597 * *$ | . 232 |
| Kurdish Morph. <br> Awar. |  | -- | . 460 ** | .395** | . $377 * *$ | 373** |
| Turkish Reading Comp. |  |  | -- | . $537 * *$ | .631** | .259* |
| Turkish Morph. <br> Awar. |  |  |  | -- | .281* | . $441^{* *}$ |
| English Reading Comp. |  |  |  |  | -- | . $246 *$ |
| English Morph. <br> Awar. |  |  |  |  |  | -- |

[^14]
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[^0]:    ${ }^{1}$ It should be noted that the term 'transfer' in this context is used in a different sense than it is generally used in L2 acquisition field where it focuses on the occurrence of linguistic features (e.g., vocabulary, phonemes, syntactic features and so on) specific to one language in the production of another language (Ellis, 1997). However, in the bilingualism context relevant in this thesis, the notion of 'transfer' mainly refers to "skills transfer" and is referred to as the use of previously learned linguistic strategies (e.g., reading and writing strategies, literacy skills, communicative strategies, metalinguistic awareness and so on) in the development of another language (August, Calderon \& Carlo, 2002; Sparks, Patton, Ganschow \& Humbach, 2009).

[^1]:    ${ }^{2}$ For a comprehensive discussion see Skutnabb-Kangas \& Bucak, 1995; Hassanpour, SkutnabbKangas \& Chyet, 1996; Yıldız \& Düzgören, 2002; Haig, 2003; Yıldız, 2004; Hassanpour, 2005; Akın, 2007; Yeğen, 2007 among others.

[^2]:    ${ }^{3}$ There is a recent project coordinated by Christoph Schröeder and Michael Bommes on literacy acquisition and development of immigrant school children (1 and 7 graders), which includes Kurdishspeaking students in İstanbul as well. Although the whole project has not been published and publicized yet, some of the findings of the study have been presented by Ayan Ceyhan, M. (2010).

[^3]:    ${ }^{4}$ The term Kurdish refers to the Kurmanji variant of this language group throughout the thesis.
    ${ }^{5}$ In ergative languages, an object agrees with the verb as opposed to accusative languages where there is a subject-verb agreement. In the case of Kurmanji Kurdish, transitive verbs in past tenses agree with object instead of subjects. For a meticulous discussion of the term "ergative" and the manifestations of the "ergativity" see Haig, 2004.

[^4]:    ${ }^{6}$ The children participated in this study reported that they started to learn Turkish at the age of 5-6 on average.

[^5]:    ${ }^{7}$ According to the exam results of SBS 2009, the least achieving 16 cities among 81 cities of Turkey are Şanlıurfa, Diyarbakır, Hakkari, Kars, Şırnak, Ağrı, Ardahan, Van, Mardin, Muş, Iğdır, Bitlis, Siirt, Bingöl, Gaziantep, Batman and Adıyaman in succession. In fact, these cities are mainly populated by Kurdish-speaking people and most of the students attending schools in these cities are speakers of Kurdish and they learn Turkish in later ages. The statistic are retrieved August 23, 2010 from http://egitek.meb.gov.tr/Sinavlar/detay.asp?ID=16\&ID2=1\&ID3=43

[^6]:    ${ }^{8}$ As mentioned earlier, it should be noted that this problem is also common in the case of L1 Turkish students learning English as L2.

[^7]:    ${ }^{9}$ Kellerman (1983) suggests that besides the actual linguistic closeness of languages, the perceptions of learners regarding the L1 and L2 relations are also important. He introduces the term "psychotypological distance" in order to explain the perceptions of learners about the linguistic typology of the languages involved.

[^8]:    ${ }^{10}$ The hypothesis assumes that a student does not need to learn the meaning and scope of a concept (for example 'photosynthesis' in Biology) again and again in different languages. Instead, the students can simply transfer the knowledge about a concept learned through one language to his/her another language.

[^9]:    ${ }^{11}$ However, due to some unanticipated problems in one of the data collection settings, 28 students could not take the picture description task in English. For those students, only the cloze test scores were taken as the overall proficiency score in English. We did not eliminate these students from the study altogether since they had already responded to all the other tests in Turkish, Kurdish and English.

[^10]:    ${ }^{12}$ The tests results of these two students did not significantly differ from those who learned Turkish subsequent to Kurdish.
    ${ }^{13}$ In fact, it is widely accepted that children pass through critical milestones of L1 acquisition by the age 3 or 4 , and they master the basic structures of their first language by that time (Lightbown \& Spada, 1999), but the figures presented here reflect the perceptions of the participants regarding their beginning to learn the languages involved for the first time. In the case of Kurdish, the responses such as "since my birth" were counted as " 0 " whereas, the exact responses such as " $1,2,7$ or 10 " were computed in the rest of the cases in all three languages.

[^11]:    ${ }^{14}$ As explained earlier, it should be noted that this situation is not independent from the English language teaching practices in Turkey in general, and many students from diverse L1 backgrounds face similar problems.

[^12]:    ${ }^{15}$ This test has been taken by 6, 7 and 8th grade students at the end of the school year and it includes tests of Turkish Language Arts, Mathematics, Social Studies, Science, and English. However, according to the latest regulations, only 8th graders will take this exam in the upcoming years.
    ${ }^{16}$ This test, also known as ÖSS, is a standardized test for the admission to higher education in Turkey administered by ÖSYM.

[^13]:    ** . Correlation is significant at the 0.01 level (2-tailed).

[^14]:    **. Correlation is significant at the 0.01 level (2-tailed).

    * . Correlation is significant at the 0.05 level (2-tailed).

