2012-07-09

The Correlation of Arab ELLs' Academic Reading Fluency in Arabic and English

Jonathon C. McCollum
Brigham Young University - Provo

Follow this and additional works at: https://scholarsarchive.byu.edu/etd
Part of the Linguistics Commons

BYU ScholarsArchive Citation
McCollum, Jonathon C., "The Correlation of Arab ELLs' Academic Reading Fluency in Arabic and English" (2012). All Theses and Dissertations. 3657.
https://scholarsarchive.byu.edu/etd/3657

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in All Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.
The Correlation of Arab ELLs’ Academic Reading Fluency in Arabic and English

Jonathan McCollum

A thesis submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of Master of Arts

Neil Anderson, Chair
Norman Evans
R. Kirk Belnap

Department of Linguistics and English Language
Brigham Young University
December 2012

Copyright © 2012 Jonathan McCollum
All Rights Reserved
Educational and economic developments in the Persian Gulf have increased the need for academic English reading fluency in the rising generation of college-bound students. A discussion of the literature on the linguistic properties of Arabic diglossia and orthography affirms the challenge that Arabs confront in L1 literacy. Because of the difficulties encountered in Arabic literacy, the transfer of L1 skills to L2 emerges as a salient issue for English instruction in the Arab world. The following study of Arab ELLs’ academic reading fluency in Arabic and English investigates a hypothesized positive correlation between L1 and L2 reading abilities.

Quantitative and qualitative data were obtained through the administration of academic reading fluency instruments in both Arabic and English and a survey of reading habits to a sample of 112 post-secondary Gulf Arab students in an English language program in Doha, Qatar. The analysis of the data reveals a correlation between Arabic and English reading fluency confirming previous research on transfer of reading skills between L1 and L2. The data further suggest the advisability of promoting reading fluency training in L1 as a facilitator of L2 fluency, especially in localities such as the Persian Gulf, where the professional environment requires young graduates to have fluency skills in both languages.

Keywords: reading fluency, Arabic language, English language, ELL, transfer, TESOL
ACKNOWLEDGEMENTS

I wish to extend my gratitude to the many individuals who aided me in the research and writing of this thesis without whom it could never have achieved its current form. Dr. Neil Anderson has been a constant and sage guide throughout the past year and has provided me with the encouragement and advice needed to bring this project to fruition. Dr. R. Kirk Belnap contributed his much needed expertise on Arabic and culture and education in the Arab world. I extend my appreciation to Dr. Norman Evans, whose last-minute willingness to join my committee and valuable advice on the writing process steered this project to completion. I must also mention Mr. Ahmed Al-Gawad, without whose considerable help over the past several months I could never have hoped to develop the Arabic materials required for this research.

There are many more that deserve thanks who aided me in conducting the research in Qatar, most especially my former colleagues at Qatar Foundation’s Academic Bridge Program. Dr. Miles Lovelace, who supported me in my decision to return to the US to pursue more education, rendered another great service to me by providing me with a venue for my research. Dr. Mark Newmark, Ms. Marci Brown, and Mr. Bob Campbell made my stay in Doha a welcome one and arranged a schedule that permitted me to conduct my research with almost the entire student body of the ABP.

Finally, I could not have completed, nor would I have even attempted, this thesis were it not for the loving support of my wife Christine. More than just a spouse, she is my life and eagerly gives as much to my endeavors as I do.
# TABLE OF CONTENTS

Chapter One Introduction ........................................................................... 1  
   Research Questions .............................................................................. 5  
Chapter Two Review of Literature ............................................................ 6  
   Introduction: Impetus towards Bilingualism in the Gulf ....................... 6  
   Arabic Language and Literacy ............................................................... 7  
   Transfer of Reading Skills .................................................................. 14  
   Transfer and Reading Fluency ............................................................... 15  
   EFL/ESL and Arabs .............................................................................. 19  
   Research Questions ............................................................................ 21  
Chapter Three Method ........................................................................... 22  
   Introduction ......................................................................................... 22  
   Research Questions ............................................................................ 22  
   Participants ......................................................................................... 23  
   Materials .............................................................................................. 24  
   Procedure ............................................................................................ 25  
Chapter Four Results ............................................................................. 28  
   Introduction .......................................................................................... 28  
   Results: Arabic Reading Fluency Instrument ........................................ 29  
   Results: English Reading Fluency Instrument ....................................... 30  
   Results: Pearson Product-Moment Correlation Analysis ....................... 32  
   Results: Anderson’s Four Quadrants of Reading Fluency ..................... 33  
   Results: Qualitative Data .................................................................... 36  
   Conclusion ............................................................................................ 39  
Chapter Five Discussion ......................................................................... 40  
   Introduction .......................................................................................... 40  
   Implications: transfer of reading skills ............................................... 41  
   Ideas for Further Research .................................................................. 43  
   Implications: Bilingualism in the Gulf ............................................... 44  
   Ideas for Future Research in the Gulf ................................................... 47
LIST OF TABLES

Table 1: Summary of Means and Standard Deviations (Arabic)……………………30
Table 2: Summary of Means and Standard Deviations (English)………………31
Table 3: Correlation Coefficients………………………………………………….35
Table 4: Participants Categorized into Anderson’s 4 Quadrants………………..36
LIST OF FIGURES

Figure 1: The Quadrants of Reading Fluency.........................................................18
Figure 2: The Quadrants of Reading Fluency.........................................................34
CHAPTER ONE

Introduction

Open a copy of the May 24 issue of the New York Times and you’ll find an article on Texas A&M in Qatar (Hamilton, 2012). At first glance many may be taken aback and ask what a university in College Station has to do with this tiny emirate in the Persian Gulf. Many have missed the emergence of a multi-billion dollar education industry in the Middle East. Aside from Qatar’s branch campus of Texas A&M, housed in a $150-million-dollar complex inside Qatar Foundation’s Education City, numerous American universities have erected campuses in Gulf nations, among them, NYU’s branch campus in Abu Dhabi or Weill Cornell’s medical school in Doha. This flurry of spending is indicative of a regional and global trend that esteems American-style university instruction and therefore requires prospective national students to bolster their academic skills in English. This development provided the impetus for this study which investigates the transfer of academic reading fluency skills from Arabic to English. Yet, more personal matters also prompted this research, and although it may be unorthodox to invoke the first person in a thesis such as this, my personal narrative may convey the matter better than the more empirically grounded chapters that follow.

Following my recruitment by Qatar Foundation to prepare Qatari post-secondary students to enter these prestigious branch campus universities in Education City, I arrived in Doha with quite erroneous expectations in the summer of 2009. I had signed on with the hope of learning the Arabic language while making a living for my family as I had previously done in Turkey. I soon realized that learning Arabic would be no small achievement in Qatar. The language of common interaction was English. In fact, I was shocked at first to witness Arabs conversing with each other in English rather than their native tongue. I was not oblivious to the variety of dialects that existed
in the Arab world; however, I had not fully comprehended its implications. In Qatar alone, a nation roughly the size of the state of Delaware, two dialects are spoken. This is by no means an anomaly in the world—the German dialects persist into the 21st century alongside High German, and there are numerous analogs in many other European nations; however, from the statements of my students, I quickly discovered that Arabic was quite peculiar to other language groups I had encountered. For example, my students would often inform me, “teacher, no one on the planet can speak Arabic.” Or I would hear, “teacher, English is so much easier than Arabic,” from a pupil who had just failed his English grammar test. I must admit that I, as many of my American colleagues, found these comments humorous while not recognizing the significance of these statements.

My students were attempting to express a phenomenon known as diglossia, where two language varieties exist simultaneously, in the case of Arabic a written and an oral variety. What we refer to as standard or Modern Standard Arabic (MSA) is the variety of Arabic learned in schools and written in books. It is the language of the literate, but it is no one’s native language. Anchored to the Qur’an, MSA diverges considerably from the mother tongue of my Qatari students. For this reason, my students would complain to me of their difficulties with reading “Arabic”—their own vernacular was not “Arabic,” but a stigmatized half-breed not worthy of such a lofty name. A helpful comparison for an American may be to pick up a copy of the King James Bible and attempt to decipher its language. An American would quickly come to the realization that English has experienced some changes in the last few centuries, so too have the Arabic vernaculars.

Having recognized this diglossic situation from my own struggles to learn Arabic, it became apparent to me why I felt as though I were teaching a literacy course rather than a second-language reading course every time I stepped into my classroom. Despite the limitless resources at
hand, the majority of my students failed to gain entrance into their desired universities due to their unsatisfactory results on the reading segment of the IELTS exam (International English Language Testing Services), the preferred English language examination for entrance into the American branch campus universities of Education City. In fact, on numerous occasions when meeting with colleagues from the American universities like Texas A&M, I was informed, and sometimes upbraided, of the poor reading skills of my few graduates who had managed to secure spots for themselves at these prestigious university campuses. Persisting in my position while my students, even some of my very brightest, seemed destined for failure sapped my strength and weakened my spirit. My once razor-sharp teaching skills seemed blunted, my optimism dulled, I came to the realization that I and my other American colleagues were ill-equipped to train our students to achieve academic reading fluency because they required more elemental literacy training in their first language (L1) before they could reach such elevated goals in their second language (L2).

I relate this narrative exposing my partiality in this study not to discredit its claims to objectivity (as if any researcher can truly make such claims), but to tell the story of real human beings with whom this researcher is acquainted. When I returned to Qatar Foundation to conduct the research for this thesis, I found a student population eager to involve themselves in this study. In conversation with students, I found many to be deeply concerned with the future of their educational system. Participants confided that they feared for their younger siblings who learned little or no Arabic in their schools. Some, eager to prove their skills in Arabic, went out of their way to invite me to administer my tests to their classes. Others moaned at being tested in Arabic considering their skills in English to be superior to their proficiency in Arabic. Therefore, this story, intended to remind us that research and policy influence the lives of individual teachers and students, reveals the motivation and passion that carried me through this investigation.
This study then represents the outgrowth of some of the challenges I confronted on a daily basis while teaching in the Gulf and seeks to address issues both particular to states like Qatar and more generalizable to the wider world of English language learning, and second language learning as well. The necessity of English language has grown exponentially with the globalizing tendencies of our world and no where is that more acute than in the Persian Gulf, where cosmopolitan cities abound, and native citizens find themselves minorities within their own states. Bilingualism is now a fact of life for these citizens, yet academic bilingual skills, most especially in terms of literacy, lag behind those of basic intercommunicational skills.

This thesis addresses bilingual academic literacy amongst Arabs from the perspective of reading fluency and investigates the correlation of reading fluency in Arabic and English. Reading fluency has been operationalized as a fusion of reading rate and comprehension utilizing Anderson’s (2008) definition of fluency as “reading at an appropriate rate with adequate comprehension” (p. 3). Employing academic texts in both Arabic and English to measure the reading rate and comprehension of a sample population of post-secondary English Language Learners (ELLs) in the State of Qatar, this research attempts to determine the correspondence of fluency skills in the L1 and L2 of participants. The thrust of this thesis then extends into Alderson’s (1984) “threshold” hypothesis theory that envisages non-L2 specific skills, in this case reading skills, as transferable agents between languages given that sufficient L2 proficiency has first been acquired. It is therefore my hope, that this research will enhance our knowledge of reading fluency and its possibilities of transfer between languages and assert the need of L1 reading fluency instruction to governments and educational institution, most especially those of the Persian Gulf, that struggle to strike a balance between L1 and L2 instruction in K-12 schools.
Research Questions

Seeking to augment previous research on transfer and reading fluency, this thesis will therefore address the following questions:

(1) Is there a demonstrable positive correlation between academic reading fluency in Arabic and academic reading fluency in English amongst Arab ELLs?

(2) Is there a relationship between reported extensive reading in Arabic and reading fluency in English?
CHAPTER TWO

Review of Literature

Introduction: The Impetus towards Bilingualism in the Gulf

As the oil-rich states of the Persian Gulf seek to diversify their industries and nationalize many of the technical jobs in their economies, English has become the essential prerequisite for higher education in the region. Seeking to promote Western-style university education, many universities have adopted an English-only curriculum for most majors. To attract students to the region and to foster an elite education in their nations, Qatar and the UAE have subsidized the opening and maintenance of branches of prestigious U.S. universities—Georgetown, Northwestern, Carnegie Mellon, Cornell, and Texas A&M have all set up satellite campuses in Qatar’s Education City. Moreover, English is far from a novelty in the region.

English has long reigned supreme as the lingua franca of the region where the cosmopolitan nature of its diverse workforce has necessitated the use of English for even the most mundane daily tasks. Gulf Arabs, therefore, can boast a high oral aptitude in the English language; however, despite the prevalence and prominence of the English language in the region, schools struggle to find students with the requisite competence in English language to compete in university-level academics. It is most particularly in English reading and writing proficiency that native students tend to be deficient. Until recently, literacy in Arabic remained an issue of considerable prominence, yet now a new dimension of literacy, that of bilingual literacy, emerges as a challenge for the Arab states of the Gulf. The failure to produce academically proficient English readers has become a pressing matter for regional governments and educational institutions as they attempt to propel their next generation into a highly competitive work environment in which strong bilingual literacy skills are an imperative.
The Arabic language and orthography has attracted considerable research into L1 and L2 literacy acquisition and reading fluency in the Arab world, much of which has emphasized Arabic as a unique language with peculiar difficulties for its readers (Mahfoudhi, Everatt, and Elbeheri, 2011). Much of the research produced in the last 20 years has emphasized the processes of Arabic literacy acquisition in primary-school children but this presents a partial view of Arabic reading fluency because of the peculiarities of Arabic orthography (Abu-Rabia, 1998). A brief discussion of the Arabic language is fitting to understand the particular issues of Arabic L1 literacy and L2 reading acquisition.

First and foremost, one of the most distinctive features of the Arabic language that has rarely been appreciated except by specialists is diglossia. Diglossia, in essence, is the use of two languages for two separate purposes by a community. In the case of Arabic, the two varieties of languages encountered throughout the Arab world are *aamiya*, or the spoken vernacular (SV), learned at home from mothers and spoken across a country or a smaller region, and *fusha*, the prestigious form of Arabic (in fact, it means “most eloquent” in Arabic), often termed Modern Standard Arabic (MSA) in English and used primarily for written discourse and orally in some formal settings and media. SV and MSA diverge in lexical items, phonology, morphology, and syntax. Arab children often first confront MSA when they attend school and begin to develop their literacy, and because of MSA’s divergence from their mother tongue learning to read is analogous to acquiring a new language (Ayari, 1996). More significantly, many attribute the low learning achievement and literacy in the Arab world precisely to this phenomenon (Ayari, 1996; Maamouri, 1998, Rosenhouse & Shehadi, 1986).

Literacy and diglossia, indeed, emerge as a pressing concern in the Arab world including the affluent Gulf states. Maamouri (1998, p. 5) notes that there are “serious negative” effects due
to low-reading skills in Arab countries. In his report to the World Bank, Maamouri (1998) attributes these negative effects to diglossia and a stagnant education system that fails to equip many Arabs with relevant skills to interact in an increasingly complex environment. Maamouri approaches diglossia from a historical perspective pointing out that the rapid expansion of the Islamic empire in the seventh and eighth centuries destabilized Arabic and partitioned the language, although this theory is not without detractors who contend the language may have been segmented from its very inception. The resulting diglossia, one of a sacred and religious language codified in the eighth and ninth centuries by Arabic grammarians and anchored to the Qur’an and other religious writings juxtaposed with a common spoken vernacular, has persisted for centuries. However, it is the necessities of the modern world that have made this linguistic duality untenable in the Arab world in which all Arabs and not just an elite few must have access to written language. The training of citizens in the two languages has become a taxing effort, and education in the Arab world still bears the marks of a mimetic tradition of literacy in which texts are memorized rather than read. For Maamouri, the persistence of fusha has perpetuated social inequalities throughout the Arab world and becomes an impediment for social and economic development. He thus calls for further linguistic and psychological studies of the effects of diglossia on child learners (p. 35).

The diglossia of written and oral language in the Arab world has long been recognized as a contributor to low literacy levels in the Arab world. Ibrahim (1983) has argued that the close association of Arabic with Islam has numerous implications, most important of which is its elevation to a holy status. The language has, in essence, become unassailable as it is considered a perfect language, one bestowed by God himself, and therefore reform of its written variety, MSA, is unthinkable.
In the past 15 years, linguists have taken a more active interest in the diglossia of Arabic and most especially on its effects on early literacy development. Abu-Rabia (2000) adapted his earlier research to experiment with the feasibility of exposing Arab children to MSA in a preschool environment to promote early literacy. From a sample of 282 first and second-grade Arab Israelis 144 participants were selected for the experimental group and exposed to MSA literary texts orally for one year of preschool. Reading comprehension was subsequently measured at the end of the first and second grade years. The participants from the experimental group outperformed the control group by a significant measure leading Abu-Rabia to conclude that exposure to literary Arabic can reduce the effects of approaching literacy in a diglossic situation.

Approaching Arabic diglossia and child literacy from the aspect of reading fluency, Saiegh-Haddad (2005), with a far smaller sample, 42 first-grade Arab Israelis, measured the participants’ phonological and orthographic recoding skills in vowelled Arabic. The results indicated that phonological processing of MSA phonemes absent in the participants’ SV were more challenging than SV phonemes; however, this did not affect reading fluency as defined in the study, namely pseudoword reading. As comprehension was not a factor in the measurement, the posited effects of diglossia by Maamouri and Abu-Rabia were not addressed in this study, but rather rapid recoding of orthographic features.

More recently, Raphiq Ibrahim (2011) confirmed earlier studies that have demonstrated the negative correlation between diglossia and literacy. By operationalizing working memory, Ibrahim’s study suggests that lexical distance (between MSA and SV) affects the phonological memory of Arabs. Through a series of tasks of phonemic deletion and analysis the 571 first through twelfth-grade participants consistently scored higher on SV words. Ultimately, Ibrahim concluded that low-levels of meta-lingual performance in MSA has serious implications for literacy development for children, but the higher grades may likewise experience difficulties in the
higher processes of reading comprehension and written expression which depend on an extensive vocabulary and language knowledge.

This posited impact on the higher processes of reading comprehension in Arab L1 readers impels us to question what the consequent impact on Arab readers will be when learning an L2. Prior to exploring this issue, however, a short review of Arabic orthography and language will clarify other particular features that may influence Arab readers.

Precisely because of these peculiarities, Thompson-Panos and Thomas-Ruzic (1983) have contended that ESL educators must be aware of some of the implications of the Arabic language when approaching Arab learners of English. One of the most prominent of these aspects of Arabic is its orthography which can be considered both transparent and opaque depending on the texts to which one refers. Texts for children in grades 1 through 4 are vowelled with diacritics to aid proper reading. Texts that are vowelled, as such, have a consistent and predictable letter-sound correspondence and thus a transparent or shallow orthography. Around fourth or fifth grade, however, students are introduced to unvowelled texts, and all texts thereafter will be of the unvowelled variety aside from religious texts such as the Qur’an and Bible. An unvowelled text must then be considered orthographically opaque as the absence of vowels makes many words homographic; that is, two or more words look the same but carry distinct meanings and pronunciations. Moreover, homographs are widespread in Arabic literature occurring as often as every third word in a text (Abu-Rabia, 1998).

This phenomenon of homography has numerous implications for the Arabic reader and has precipitated much research on the matter. For instance, Salim Abu-Rabia (1998), perhaps more than anyone else, has conducted a variety of research into this matter which has indicated that Arab readers, even advanced high-school readers, struggle in deciphering homographs. From a sample of 64 seventeen-year-olds to which four texts were administered in three varieties—vowelled,
unvowelled, and wrongly vowelled—results demonstrated that vowelization had a significant impact on reading accuracy amongst poor and skilled readers alike. Further, Abu-Rabia concluded that vowels facilitate word recognition and that even the most skilled readers found all of the readings, vowelled and otherwise, challenging. In an earlier study, highly skilled high-school students read aloud vowelled and unvowelled texts in which correct pronunciation of homographic words involved disambiguation through heavy reliance on context (Abu-Rabia, 1996). In Abu-Rabia’s judgment, this process of textual reliance for word recognition was neither easy nor automatic for even highly skilled readers.

Beyond homography Arabic orthography presents other relevant ramifications for the Arab reader. The orthography consists of 28 letters, 22 of which have 4 differing forms depending on their location in the word making decoding a laborious project. Many of the letters have similar shapes contributing to its complexity. Young Arab learners often encounter problems with spelling and word recognition as working memory is taxed by complex orthography (Abu-Rabia & Awwad, 2004; Abu-Rabia & Taha, 2004; Abu-Rabia & Taha, 2006). Ibrahim, Eviatar, and Aharon-Peretz (2007) conducted a study that demonstrated the taxing nature of decoding orthography in which Arabic first-graders consistently manifested greater difficulty in processing Arabic orthography than their Hebrew counterparts. This, they concluded was due to the visual complexity of Arabic orthography. Along similar lines, Elbeheri, Everatt, Mahfoudhi, Abu Al-Diyar, and Taibah (2011) emphasized the over-complex script of Arabic as a contributing factor to variability in reading comprehension in a sample of mainstream and learning disabled Arabic speakers.

Accordingly, this strain of thought identifies this complexity of Arabic orthography, the opacity of its unvowelled variety, and, most acutely, its diglossia as catalysts for the low levels of literacy in the Arab world (Ibrahim, H., 1983; Maamouri, 1998). That is not to say that research
has not indicated other intervening variables that influence literacy levels in the region. Other research has likewise emphasized the high incidence of reading disabilities in the region and its correlation with consanguineous marriages as a possible variable in literacy development in Arab countries (Abu-Rabia & Maroun, 2005).

Notwithstanding the majority of research which locates the diglossic and orthographic features of the Arabic language as a central issue in the problems endemic to Arab literacy, there remain numerous cultural and sociolinguistic variables that emerge as perhaps more significant factors to the low literacy rates of the Arab world. In fact, the issue of literacy and diglossia has become highly politicized in the region with factions calling for linguistic reform to facilitate literacy and others defending the integrity of Arabic and labeling any attack on it as an attack on Islam itself (Suleiman, 2004). Suleiman divides these groups into the “modernizers” and the “language-defenders” and informs that those that recommend modernization run the gamut from promoting national vernaculars to doing away with the Arabic script altogether in favor of a Romanized alphabet (p. 224).

Others are less sure of the negative effects of the diglossic situation in which Arab children develop their literacy skills. Bassiouney (2009) points out that although diglossia starkly divides the colloquial and formal varieties of Arabic, Arabs do not consider their vernacular to be another language. Moreover, children rarely complain of aural exposure to MSA, especially in the form of cartoons and rarely find it incomprehensible. Indeed, she sees diglossia as “an asset rather than an impediment” and as a feature of both linguistic richness and an opportunity for speakers to project their identity (p. 267).

Nor is diglossia or orthographic complexity a uniquely Arabic trait, for if we are to look at literacy development for Mandarin speakers, we encounter an arguably more complex writing system that bears a similar distance from the spoken vernacular. Further, this comparison permits
insight into another important issue, that of how readers of these orthographic systems approach texts. Abbott’s (2006) study of 250 Chinese and 250 Arab ELLs’ usage of reading strategies underscores the effect that these orthographies have on reading. Whereas Chinese learners tended to rely more on bottom-up strategies to comprehend English texts, Arab learners relied more heavily on top-down strategies, such as skimming, connecting, and inferring. The Arab ELLs achieved greater success using these strategies over their Chinese counterparts, Abbott speculates, because of Arab readers’ limited visual stimulus in their native language, namely the absence of vowelling and the considerable occurrence of homography. Thus, Arabs, due to their L1, excelled in their use of top-down strategies that focused their attention on the global structure of the text. Arabic’s orthography may therefore be considered an asset, yet again, to its speakers.

Still, if Arabic orthography or diglossia represents a distinct, or even a beneficial, aspect for literacy development for its readers, does it not also impede early acquisition of reading for its speakers? Wagner (1993) argues that it does not hinder Arab children when learning to read citing evidence that literacy in orthographies as distinctive as English and Chinese is acquired with approximately the same time and effort. Studying schoolchildren in Morocco, Wagner discovered that even Berbers learning to read in Arabic when compared to their Arabic speaking classmates developed literacy skills at similar rates after lagging behind for the first five years. For Wagner, parental education, socioeconomic status, and the readers beliefs about literacy were far more consistent predictors of literacy development amongst Moroccan youths.

Although scholars present varied opinions on the impediments that thwart Arabic literacy, the Arabic language and its speakers emerge from these varied works as a rich resource to ask new questions about how readers of an orthographically distinct language in a diglossic situation approach reading in a second language. The question we may ask is how do Arabs read and what effects does this have on their reading in their L2?
Transfer of Reading Skills

It is generally accepted that L2 readers approach texts with the support of skills developed and internalized from their considerable experience reading in their L1. Non-specific L2 skills, transfer from their L1, provide the scaffolding that L2 readers utilize to construct meaning from written discourse. Although there remain issues about the particulars of transfer, Grabe (2009) concludes that “it is generally agreed that phonological-awareness skills, word-decoding skills, reading strategies, metacognitive awareness, and pragmatic skills transfer from the L1 to the L2” (p. 144).

Of course, L2 knowledge is undoubtedly the most decisive factor in L2 reading comprehension; however, empirical studies have demonstrated that non-L2 specific knowledge and skills influence reading comprehension. Alderson (1984) has framed this discussion in terms of a threshold hypothesis stating that a “threshold” of L2 knowledge must be reached before L1 skills can transfer. Numerous studies have corroborated this thesis, most notably Carrell’s (1991) study of Spanish and English language learners. Measuring reading comprehension, Carrell examined English speakers learning Spanish at a low-proficiency level and concluded that L2 knowledge predicted comprehension. Yet from a group of 45 higher-proficiency native Spanish speaking ELLs, L1 reading comprehension strongly predicted L2 text comprehension.

Along similar lines, Hulstijn and Bossers’s (1992) study of Dutch learners of English and Turkish-speaking Dutch learners revealed that L1 transfer contributed substantially to L2 reading. From the first sample of Dutch students, the analysis of the data indicated that the higher performance of grade 11 students over grade 9 students in the English reading fluency measures could be explained by their equivalent higher performance on L1 assessments. Moreover, the results of the Turkish learners of Dutch likewise revealed that non-L2 specific factors, most
notably reading comprehension in L1, contributed positively to reading performance in the target language.

Little research has been conducted on transfer of reading skills from Arabic to English, but considerable research exists that provides evidence of transfer from Arabic to French. Most notably, Wagner’s (1998) longitudinal study of Moroccan schoolchildren, which employed regression analyses to measure the effect of Arabic reading skill on French reading achievement. His data supported the transfer of alphabetic decoding skills across the highly contrasting orthographies of Arabic and French; however, his study focused mainly on the more elemental skills of decoding and did not attempt to investigate the transfer of more global aspect of text comprehension.

**Transfer and Reading Fluency**

Emerging from these studies is the implication that indeed L1 reading skills transfer to L2 and, furthermore, that the absence of such skills may negatively impact L2 reading development. Consequently, failure to acquire reading fluency in L1 may inhibit L2 readers in their development of L2 reading fluency. Of all reading skills, perhaps the most indispensable for university-bound readers is that of fluency. Grabe (2009) contends that fluent English L1 readers approach speeds of 250 to 300 words per minute (wpm) with good comprehension; however, advanced-level L2 English readers usually lag behind their monolingual counterparts, reading at rates of 80 to 120 wpm to complete university course assignments. If these L2 readers reach similar fluency levels in their native language as their Anglophone counterparts, it can be assumed that although reading fluency skills may transfer, they do not transfer in terms of equivalent wpm rates.

In recent years, considerable research has been directed towards L1 reading fluency, but in an L2 context, far fewer studies have emerged (Grabe, 2009). As often occurs, L1 research provides a model for further studies in the field of L2 literacy. For instance, with a sample of
remedial grade 3-5 L1 students, Tan and Nicholson (1997; Nicholson & Tan, 1999) demonstrated a significant improvement in both fluency and passage comprehension through an experimental treatment of flash card practice. In a similar study, Levy, Abello, and Kysynchuk (1997) confirmed these results in a study that included both word recognition training and repeated readings of texts. Likewise, the data revealed significant gains in fluency and text comprehension. Employing an analogous methodology in an L2 setting, Fukkink, Hulstijn, and Simis (2005) conducted a training study in which practice of rapid word recognition showed apparent gains in the treatment group in both comprehension and fluency after only two training sessions.

Such studies emphasizing rapid decoding and automaticity in word recognition have been contradicted by other studies that emphasize top-down comprehension based processes. Droop and Verhoeven (2003) found from a sample of third and fourth graders that Turkish and Arabic minority Dutch learners outperformed their low socioeconomic-status (SES) L1 Dutch counterparts in decoding and even word recognition, but that their marginal oral-language skills directly impacted text comprehension giving credence to the threshold hypothesis theory. Thus, oral-language skills played a more prominent role in reading comprehension than the rapid recognition of words.

Moving beyond word recognition to passage-reading fluency, Taguchi and Gorsuch (2002; Gorsuch & Taguchi, 2010) have focused on repeated reading and its benefits for both speed and comprehension. Over a ten-week period, a sample of nine EFLs practiced repeated reading exercises while a control group persisted in their curricular reading materials. After the ten-week period, Taguchi and Gorsuch reported that the experimental group significantly outperformed the control group in both comprehension and reading rate when introduced to new passages indicating the positive effects of repeated reading. In a later study, Gorsuch and Taguchi (2010) identified
repeated reading as a causal agent in improved fluency and comprehension and pointed to its reinforcement of learner metacognition in reading strategy use.

Isolating speed as a significant variable to fluency, Yen (2012) found the introduction of a speed-reading course to effect a positive influence on a sample of 61 Vietnamese ELLs. The experimental group demonstrated an improvement in speed of reading both course materials and other types of texts over the control group without any significant decrease in comprehension, indicating the viability of speed-reading exercises as a pedagogical instrument for increased fluency.

While researchers approach the construct of reading fluency from myriad perspectives, they tend to agree on the critical role of fluency in L2 reading (Grabe, 2009, 2010; Rasinski et al., 2006, Segalowitz & Hustijn, 2005); however, a precise definition of the fluency construct, as often is the case, remains a subject of discussion. Most concur that fluent readers can decode letters and words with automaticity, accuracy, and rapidity (Chard, Piluski, & McDonagh, 2006; Grabe, 2009; Samuels, 2002). This in turn leads to a fast rate of reading combined with good text comprehension usually exhibited in expressive oral renditions of a text (Grabe, 2009).

Perhaps, the most succinct but precise definition of reading fluency for L2 readers comes from Anderson (2008) who defines fluency as “reading at an appropriate rate with adequate comprehension” (p.3). His use of four quadrants (Figure 1) to locate and define L2 readers provides researchers and teachers with a means of identifying the fluency of their readers. Employing these four quadrants, a researcher can distinguish a fluent reader as one who surpasses the threshold of 200 wpm while maintaining a comprehension of 70% of the text (Anderson, 2012). A reader who does not exceed these threshold rates of comprehension or speed would be located in the other three quadrants, those of “the superficial reader,” “the accurate reader,” or “the developing reader.” The four quadrants thus assist in the categorization of L2 readers based on
their deficiency in one or both of the properties of Anderson’s dichotomous definition of reading fluency. Furthermore, these quadrants can also be employed to locate a reader’s fluency in both L1 and L2, graphically displaying the contrast between fluency in the two languages.

*Figure 1. The Quadrants of Reading Fluency*
Anderson’s definition and accompanying figure may also facilitate studies of transfer of fluency skills amongst ELLs as scoring of learner competence in both languages can be charted along the grid.

**EFL/ESL and Arabs**

Although very little research has been attempted on reading transfer from Arabic to English and, as of yet, no study has examined Arab ELLs’ reading fluency in Arabic and English. In fact, Koda (2012) recently accentuated the limited availability of information on the development of reading skills in languages other than English, specifically calling for additional research in typologically diverse languages. From previous research it can be conjectured that Arab ELLs would draw from non-L2 specific skills in their reading, and indeed the existing research into Arabic focusing on bilingual and trilingual studies of young Arab ELLs have promoted the hypothesis that phonological skills transfer between the two languages (Hauptman, Mansur, & Tal, 2008; Tahan, Cline, & Messaoud-Galusi, 2011). Tangentially, further research has focused on technology and literacy practices, as is the case with Cruickshank’s (2004) study of four Lebanese-Australian families that found teens interfacing technology to read in both languages.

One specific study, however, targeted transfer from Arabic to English as a contributing factor in low awareness of vowels. Exploring the theories of L1 orthographic interference and transfer of Koda (1995), Hayes-Harb (2006) compared the reading processes of non-Arab ESL learners, native English speakers, and Arab ESL learners to find evidence of transfer of lower-level processes. In contrast to the two control groups, the native Arabic speakers demonstrated consistently lower awareness of vowel letters. Hayes-Harb posited that this differential awareness
of vowel letters was due to the absence of voweling in Arabic texts. Further, she concluded that this may contribute to Arab ELLs’ reading comprehension difficulties.

Attempting to validate positive transfer of reading skills from Arabic to English, Dakroub (2002) investigated the role of Arabic literacy on the academic achievement of American middle-school students in their mainstream courses. Through an ex post facto design, he measured the independent variable of academic achievement through past achievement in their English courses and standardized exams. Assessing their Arabic literacy level with comprehension measurements, he dispelled the assumption that bilingual education retards academic performance. The positive correlation between Arabic language proficiency and the academic achievement of the 105-student sample, he concluded, exhibited not only the benefits of bilingual schooling for ESL students, but more generally of transfer of reading skills from Arabic to English.

Similar results for college students were obtained from a probe into home literacy in the United Arab Emirates. Jazzar’s (1991) descriptive approach to six Emirati college students and their family’s reading practices lends qualitative evidence to the effect of transfer from Arabic to English. Academic performance, in the six participants, correlated positively with a home life that promoted literacy through shared reading.

Despite this growing evidence of a positive correlation between Arabic literacy and English academic achievement, research into the transfer of reading skills and processes from Arabic and English is limited. The peculiar difficulties of the Arabic language may hinder Arab learners of English, and low proficiency in reading English may be a result of incomplete L1 reading fluency. Furthermore, as the Arab world and the Gulf countries in particular are becoming bilingual societies in which fluency in both languages is a requisite for social advancement, an investigation into Arabic academic reading proficiency as a positive contributor to English reading proficiency
emerges as an imperative for informing both state and private education endeavors to build new
generations of bilinguials capable of entering English-speaking universities.

**Research Questions**

Based on this need, the proposed research will investigate the correlation of Arabic and
English reading fluency for Gulf Arab ELLs. This project will address the following research
questions:

1. Is there a demonstrable positive correlation between academic reading fluency in Arabic and
   academic reading fluency in English amongst Arab ELLs?

2. Is there a relationship between reported extensive reading in Arabic and reading fluency in
   English?
CHAPTER THREE

Method

Introduction

The current project, undertaken to fill a gap and extend our knowledge of transfer of reading fluency skills between two orthographically distant languages, in this case Arabic and English, required a large homogeneous population of adult English learners. Qatar, a Persian Gulf nation in which (a) English is instructed alongside Arabic from the first years of primary school and (b) in which Academic English literacy is a requisite for entrance into many domestic and the majority of foreign university programs available to its citizens presented an ideal location to conduct such a study. The following research, therefore, does not merely attempt to address a lacuna in our present understanding of bilingual literacy but also carries with it pragmatic aspirations of encouraging further inquiry into educational practices throughout, most especially, the Persian Gulf nations and, secondarily, Arab countries which now confront increasing pressure to promote English language instruction in schools and universities.

Research Questions

Accordingly, the methodology utilized in this study has been developed and directed to answer the following questions:

1) Is there a demonstrable positive correlation between academic reading fluency in Arabic and academic reading fluency in English amongst Arab ELLs?

2) Is there a relationship between reported extensive reading in Arabic and reading fluency in English?
Participants

Qatar Foundation’s Academic Bridge Program, with its largely homogeneous university-bound student population provided an ideal research venue. With the support of the program’s director, permission was obtained to conduct research with the student body during classroom hours. The study strictly adhered to Internal Review Board protocols, and no participant names were obtained for the purpose of this research, ensuring complete anonymity of all participants. Further, participation in the study was strictly voluntary, and having been duly informed of the purposes and procedure involved in the research, each subject signed a consent form indicating their willingness to participate (see Appendix A).

The Academic Bridge Program, a foundation program that feeds into Qatar Foundation’s American branch campus universities in Education City, represented a propitious location for this research because the student body, 93% of whom are of Qatari nationality and graduates of independent domestic high schools, must undergo a variety of tests for admittance into the program. Most significantly, students submit their International English Language Testing Services (IELTS) exam scores to the school as part of the application procedure. This international English examination has received worldwide recognition by universities throughout Europe, Asia, and America. A minimum overall band score of 4.5 is required for admission into the Academic Bridge Program, and students’ scores range from the established minimum to a high of 7.0, a sufficient score for entrance into any UK university. Along with the IELTS, students undergo an in-house placement examination that includes an academic reading test. Furthermore, the application procedure involves a submission of secondary-school academic records requiring a minimum score of 80% on the Qatari secondary-school Thanawiyya system. Utilizing these scores, the program estimates the students’ level of English and places them in one of four levels equivalent to intermediate, high intermediate, low advanced, and advanced. Finally, the campus is
coeducational—a rarity in the Gulf States—and thus the school facilitated the sampling of post high-school students from both sexes which varied in English proficiency levels but represented the majority of Qatari English language learners bound for postsecondary study at domestic and foreign universities.

Of the 220 students attending the Academic Bridge Program in the 2011-2012 academic year a sample of 165 students was selected from 16 preexisting classes from all four proficiency levels. Due to absences from one or both administrations of the reading fluency tests, a final total of 112 participants completed all portions of the instrument. The 112 participants were comprised of 105 Qatari postsecondary students, aged 18-22, one Saudi national educated in the Kingdom of Saudi Arabia, four Palestinian nationals educated in Qatari independent schools, one Sudanese national educated in a Qatari independent school, and one Iranian educated in an international school in Qatar. At the time of the study, students had participated in 20 hours of weekly instruction in the English language for a period of over eight months. Their classes included reading, writing, explicit grammar, and content courses.

Materials

In order to triangulate the hypothesized positive correlation between Arabic and English reading fluency a variety of quantitative and qualitative instruments were employed to gather data for this study. A timed English academic reading fluency exam, adapted from a reading comprehension test developed by Schmitt, Jiang, and Grabe (2011), was refashioned as a reading fluency test (see Appendix B). Divided into two components, the instrument measured both (a) comprehension with a battery of 10 multiple-choice questions and eight completion questions on two graphic organizers and (b) rate of reading by eliciting participants to record the time passed in completing the 789-word reading passage.
An Arabic reading fluency exam, similar to the English fluency exam, was developed and employed to operationalize Arabic academic reading fluency (see Appendix C). The Arabic instrument takes an identical form as its English counterpart with a battery of 10 multiple-choice and eight completion questions. As in the English instrument, all questions are in the language of the passage, an 812-page text in Modern Standard Arabic. Likewise, participants are instructed to record the time spent reading the text.

Finally, a reading survey was developed to elicit qualitative data on reading habits and practices to deliver a broader understanding of young adult literacy amongst the sample population. The instrument, derived from a reading survey created for ELLS, was refashioned and translated into Arabic to elicit responses about the extent to which participants read in both Arabic and English, the types of texts which participants read in each language, and the pleasure, if any, which participants derived from the experience (see Appendix D). The instrument comprised of 21 open-ended questions all of which permitted participants to supply subjective responses and report sentiments vis-à-vis their personal approach to literacy in Arabic and English. Rather than relying exclusively on the quantitative data obtained from the readers, the researcher preferred to buttress the results obtained from the two literacy tests with this qualitative measure that could also expose the sample population’s multifarious attitudes towards reading.

**Procedure**

The 112 participants of the 16 sampled preexisting classes completed the above materials in two class sessions in the same week of early April. The Arabic academic reading fluency test and survey were administered in the first class session of the week by the researcher and the class instructor. It was decided that, in order to prevent fatigue, participants would complete the academic Arabic reading fluency exam and the academic English reading fluency exam on separate days. The duration for completion varied from class to class, ranging between 50 minutes
to 65 minutes. The English academic reading fluency instrument was administered on the following session of class with a duration for completion varying from 35 minutes to 60 minutes.

The instructor of each course accompanied the researcher to the preexisting classes to administer the Arabic reading fluency instrument and the reading survey. The exam process was proctored by either the instructor or the researcher. Participants were informed that they would be taking part in an anonymous study to research bilingual literacy in Arabic and English. The students were allowed to abstain from the testing and could leave the class if they so desired. As a means to encourage participation, students who elected to participate were entered into a raffle to win a new Apple iPad. The students of every class decided to participate and were randomly assigned identification numbers to ensure the anonymity of each participant. Participants were instructed to maintain silence during the testing procedure and to refrain from asking for help from the instructor or researcher to comprehend the text or the questions. To isolate the participants’ reading fluency with academic texts, the passages were first distributed to each individual without the battery of comprehension items. All participants received an identical passage and started the reading only when a stopwatch projected onto the wall was initiated. Once the participant had completed the reading, the individual recorded the time displayed on the stopwatch. The battery of comprehension questions was then distributed to the participants, who were permitted to answer the questions without any imposed time limit and to use the reading passage to aid in their responses. After finishing the Arabic reading instrument, participants received the reading questionnaire, which they likewise completed at their own pace.

Two days following the administration of the first instrument, the researcher and course instructor returned for the subsequent session of class to implement the English reading instrument. The administration of the English academic reading fluency exam resembled the procedure used for the Arabic instrument. Participants received the passage and were instructed to
read the text and record the time elapsed during the reading. After the reading was completed, each individual obtained the battery of comprehension questions from the instructor or the researcher. Upon supplying answers to all of the items, participants had completed all instruments of the study were thanked for their participation in the research.

Using the randomly assigned identification numbers for the participants, the researcher matched the Arabic reading instrument and survey of each individual to his or her corresponding English reading instrument for rating and analysis. A master key created by the researcher was utilized to rate each exam allowing for a correct mark for only those items that either had the appropriate option selected, in the case of multiple-choice items, or contained the correct phrasing from the text, in the case of supply items from the graphic organizers. In order to minimize discrepancies arising from multiple raters, the researcher elected to be the exclusive evaluator for all of the exams.
CHAPTER FOUR

Results

Introduction

Hypothesizing that a contributing factor to the ponderous development of English academic reading skills in the Persian Gulf states can be traced to the deficiency of reading fluency in students’ L1, the researcher has set about to demonstrate a positive correlation between academic reading fluency in Arabic and English. Despite the best efforts of civil servants, educators, and school directors to curricularize English language instruction at an early age and promote the requisite literacy skills for entrance into English-language universities, Qatari students still struggle to attain sufficient reading scores on the IELTS or comparable tests of English language. Therefore, a correlation between reading fluency in the two languages amongst graduates of Qatari primary and secondary schools may reveal a need to explore new avenues of literacy instruction in the region and a reconsideration of the cultural role of literacy.

The following results set out to indicate the extent of this correlation through an analysis of the quantitative and qualitative data obtained from the research. First, descriptive statistics of the fluency instruments will relate the performance of the aggregate population. Further performance statistics of the four levels tested—intermediate, high intermediate, low advanced, and advanced—will be presented to contrast the reading fluency of the participants within their subdivided English proficiency levels. Second, using the results of the Arabic and English reading fluency measures, a Pearson product-moment correlation analysis of the data will report the correlation coefficients derived from the reading rate and comprehension segments of the instruments. Third, based on the scores from the fluency instruments participants will be classified utilizing Anderson’s (2012) four quadrants and a further correlation analysis will be performed and presented on this fluency
categorization. Finally, the qualitative data obtained from the survey on literacy practices will report the reading habits of the individual participants. With this triangulation of data, the results facilitate a more informed understanding of Gulf Arab ELLs’ literacy and reading fluency in both English and Arabic and provide a base for further investigations into the pressing matter of English and Arabic literacy instruction in the region.

**Results: Arabic Fluency Instrument**

Table 1 presents the descriptive statistics of reading rate and reading comprehension scores on the Arabic reading fluency instrument for the aggregate sample population and for the four subdivided English proficiency levels. Inspection of the comprehension and reading-rate scores presented in the Table demonstrates that the participants placed in the advanced proficiency level at the Academic Bridge Program obtained the highest scores on both measures. The aggregate mean for the comprehension segment was 60.6% with a reading rate of 202 words per minute. The advanced-level English speakers, significantly outperforming the aggregate mean, recorded an average comprehension score of 70.8% and approached a reading speed of 241 words per minute. In fact, comprehension scores in the Arabic measure, starting with a low comprehension mean of 52.2% for the intermediate students and reaching 68.1% for low advanced and finally a high of 70.8% for the advanced level, increased progressively matching the English proficiency levels into which students had been placed based on their IELTS scores and in-house placement tests.

Reading rate performance in Arabic did not reflect this observed trend of a gradual increase in comprehension corresponding remarkably to the participant population’s subdivided English proficiency levels. The average aggregate reading speed reached a rate of 202 wpm, but the intermediate-level participants surpassed this pace with a mean of 231 wpm, albeit with the lowest comprehension scores. The measured reading rate for the high-intermediate English learners then drops slightly to 225 wpm, only to make a substantial descent to 181 wpm for the low-advanced
level participants. Finally, the reading speed for advanced-level students climbs to a high of 241 wpm. Across the board we witness a gradual increase in comprehension in Arabic reading, that is L1 reading, comparable to the participants’ L2 proficiency level, that is English proficiency; however, the observed reading rate in Arabic does not conform to this paradigm, steadily decreasing in speed throughout the L2 levels but finally reaching its apex at the most advanced proficiency level of English.

Table 1

Summary of Means and Standard Deviations given in percentages for comprehension and words per minute for reading rate on the Arabic Reading Fluency Measure

<table>
<thead>
<tr>
<th></th>
<th>Comprehension Mean/Standard Deviation</th>
<th>Reading Rate Mean/Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Participants</td>
<td>60.6%/17.4</td>
<td>202wpm/64wpm</td>
</tr>
<tr>
<td>By Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>52.2%/17</td>
<td>231wpm/71wpm</td>
</tr>
<tr>
<td>High Intermediate</td>
<td>60.9%/16.6</td>
<td>225wpm/64wpm</td>
</tr>
<tr>
<td>Low Advanced</td>
<td>68.1%/17.5</td>
<td>181wpm/48wpm</td>
</tr>
<tr>
<td>Advanced</td>
<td>70.8%/16.7</td>
<td>241wpm/42wpm</td>
</tr>
</tbody>
</table>

Results: English Fluency Instrument

Table 2 exhibits the descriptive statistics derived from the English reading fluency measure. Not surprisingly, a gradual increase in reading comprehension scores confirms the
English proficiency levels of the participants. With an aggregate mean comprehension of 49.8% on the measure, both the intermediate and high-intermediate comprehension means fall well below this average with scores of 44.4% and 46.7% respectively. The low-advanced level increases to 58.2%, and the advanced level students reach a peak of 71.5%.

As occurred in the Arabic reading fluency measure, the reading rate does not parallel the steady ascent witnessed in the comprehension measure. The intermediate group, with a rate of 134 wpm, nearly attains the aggregate mean for reading speed of 135 wpm, but the high-intermediate participants yield a modestly lower rate at 127 wpm. Nonetheless, the low-advanced and then advanced-level samples climb well above the aggregate mean reaching 144 wpm and 166 wpm respectively. These descriptive statistics therefore reveal that, although L2 reading rates do not

Table 2

Summary of Means and Standard Deviations given in percentages for comprehension and words per minute for reading rate on the English Reading Fluency Measure

<table>
<thead>
<tr>
<th></th>
<th>Comprehension Mean/Standard Deviation</th>
<th>Reading Rate Mean/Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Participants</td>
<td>49.8%/17.6</td>
<td>135wpm/46wpm</td>
</tr>
<tr>
<td><strong>By Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>44.4%/14.2</td>
<td>134wpm/62wpm</td>
</tr>
<tr>
<td>High Intermediate</td>
<td>46.7%/15.9</td>
<td>127wpm/35wpm</td>
</tr>
<tr>
<td>Low Advanced</td>
<td>58.2%/20.7</td>
<td>144wpm/45wpm</td>
</tr>
<tr>
<td>Advanced</td>
<td>71.5%/12</td>
<td>166wpm/48wpm</td>
</tr>
</tbody>
</table>
precisely correlate with the proficiency levels of students, the observed comprehension attests to the proper placement of the participants in the preexisting subdivided levels. Furthermore, we see a significant gap emerge between the performance of the advanced-level (low advanced and advanced) and the intermediate-level (intermediate and high intermediate) participants. Most significant, however, is the parallel ascent of comprehension scores in both L1 and L2 reading corresponding to the participants’ L2 proficiency levels.

**Results: Pearson Product-Moment Correlation Analysis**

Measuring the extent to which reading fluency in L1 and L2 correlate provided the impetus for this research and remains the *raison d'être* of this study. Therefore, the Pearson product-moment correlation analysis of the data constitutes the fundamental result of the collected data. Reading fluency, as defined by Anderson, is binary, meaning that it balances two constructs, speed and comprehension; however, these two components of fluency are not absolutely dichotomized because one construct coalesces with the other. For example, rapid letter, word, and phrase recognition, or proper parsing of a text contributes to a reader’s speed but also stimulates comprehension. For the purpose of this study the construct of fluency has been bisected into the two constructs of speed and comprehension for this Pearson product-moment correlation analysis, but categorizing the participants in Anderson’s four quadrants will reintegrate these two constructs. This study operationalizes comprehension as the percentage of correct answers achieved by participants on the comprehension questions, speed as the words per minute at which the participants read the text, and fluency as the locality in Anderson’s four quadrants at which the participants arrived determined by the two previous constructs.
The correlation analysis was therefore performed on the two dichotomized constructs yielding disparate results (see Table 3). The correlation coefficient for the aggregate comprehension scores in the Arabic and English fluency instruments was .52865271 indicating a considerable degree of correspondence between the two scores. The correlation coefficient for the aggregate speed data from the two exams per contra signaled a more modest degree of interrelation between L1 and L2 reading rates with a meager coefficient of .302475134. Nonetheless, both coefficients indicate a degree of correlation between the scores achieved on the L1 and L2 comprehension and speed measures.

**Results: Anderson’s Four Quadrants of Reading Fluency**

Fluency transcends the two disjoined constructs of speed and comprehension and must accordingly be approached as an amalgam of these two data sets. To achieve such a fusion, Anderson’s four quadrants were employed inserting the operationalized speed construct of words per minute on the Y-axis and the operationalized comprehension construct on the X-axis (Figure 2). The categorization of students into these four categories—quadrant 1 (developing reader), quadrant 2 (superficial reader), quadrant 3 (accurate reader), and quadrant 4 (fluent reader)—permitted a correlation analysis of the reading fluency of the aggregate population on the Arabic and English instruments once participants were coded based on their location in the four quadrants. While Table 3 displays the correlation coefficients for comprehension, speed, and fluency, Table 4 presents the aggregate total of participants categorized into these four quadrants.

With the participants collated into their corresponding quadrant, the reading fluency Pearson product-moment analysis registers a higher correlation coefficient (.56951865) than it did with reading speed or reading comprehension in isolation. Consequently, Anderson’s quadrants have facilitated the operationalization of reading fluency as a significant variable and permitted a correlational analysis through the conjunction of these reading skills. The evident correlation of
reading fluency in Arabic and English evinces the relevance of fluency as an indispensable construct in approaching transfer of non-L2 specific skills.

![Figure 2. The Quadrants of Reading Fluency](image-url)
Table 3

*Correlation coefficients for Arabic and English reading speed, reading comprehension, and reading fluency scores*

<table>
<thead>
<tr>
<th></th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading Speed</td>
<td>0.302475134</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>0.52865271</td>
</tr>
<tr>
<td>Reading Fluency</td>
<td>0.569518685</td>
</tr>
</tbody>
</table>

Table 4 provides a breakdown of the participants categorized into the four fluency quadrants. With half of the students falling into the developing reader category in English, the extent to which participants grapple with fluency in their L2 becomes evident. Employing Anderson’s (2008) modest 200 wpm and 70% comprehension to operationalize fluency—well below Grabe’s (2009) assertion that educated readers obtain rates of 250-300 wpm, the study reveals a similar if not parallel struggle with fluency in Arabic with a clear majority of participants categorized as struggling or superficial readers. As for those achieving fluency, we see that nearly double the number of participants (25) scored in the fluency range in Arabic as achieved such a range in English. Interestingly, although fluent readers in both Arabic and English were distributed throughout the proficiency levels, of the 13 participants that reached fluency scores in English 12 obtained fluency in Arabic as well. The qualitative data derived from the survey can help to
explicate this one anomaly who achieved fluency in English yet registered as a struggling reader in her native language.

Table 4

*Number of participants categorized into Anderson’s 4 quadrants of reading fluency in English and Arabic*

<table>
<thead>
<tr>
<th>Quadrant 1 (developing reader)</th>
<th>English Measure</th>
<th>Arabic Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56</td>
<td>35</td>
</tr>
<tr>
<td>Quadrant 2 (superficial reader)</td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td>Quadrant 3 (accurate reader)</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Quadrant 4 (fluent reader)</td>
<td>13</td>
<td>25</td>
</tr>
</tbody>
</table>

**Results: Qualitative Data**

The reading survey completed by all 112 participants proffers an indispensable glimpse at the subjects’ opinions and their evaluations of their own reading skills and habits and permits further inquiry to the aberrant data obtained by the quantitative data. For instance, the one participant that achieved reading fluency on the English measure yet was classified as a developing reader on the Arabic measure provides responses that explicate her peculiar performance on the Arabic reading measure and exemplify a growing trend in the Persian Gulf. In answers to questions such as what is your favorite book, film, or music, the respondent answered in English
despite the fact that the survey was conducted in Arabic; however, she attempted the rest of the survey in Arabic despite her evident struggles to communicate in her native language (see Appendix C for the Arabic questionnaire and its English translation). This was not an isolated case and in fact in several instances participants explicitly asked the researcher if they would be permitted to complete the questionnaire in English (their L2!) rather than Arabic as they struggled with writing in their L1. The researcher replied that they should respond in the language in which they felt most at ease.

This anomalous participant who scored as a Fluent reader in English and a Developing reader in Arabic expressed her difficulty in reading in her native language responding that she disliked reading in Arabic, read almost nothing in her native language except an occasional poem, and had read little in Arabic even in her secondary education. Her responses to the following items from the questionnaire were remarkably revealing:

10. Do you know someone you would say is a good reader?
11. What makes this person a good reader?
12. Do you know someone you would say is a poor reader?
13. What makes this person a poor reader?

Despite her obvious skills in English reading and an expressed love for reading English, in response to item 12 she listed herself as the poor reader whom she knew. She regarded both her mother and father as good readers and credited their fine schooling in Arabic for their skills. She, on the other hand, reported that her schooling which predominately emphasized English language instruction fated her reading skills to a mediocre level at best. Although her reading skills in English attest to an achieved fluency in English reading, she does articulate a growing concern, felt most acutely in Qatar and the other Gulf nations that struggle to balance English and Arabic in their educational curricula, namely that younger generations
will be deficient in their native language, a matter that will be further discussed in the next chapter.

A vast range of material was collected through the reading survey of which not all can be disseminated in this study; however, in response to the second research question (Is there a relationship between reported extensive reading in Arabic and reading fluency in English?) the qualitative data on reported Arabic reading has been quantified in order to permit a correlational analysis. Question 3 of the survey asked participants:

3. How long do you read daily (on an average) in Arabic?

Participants responded to this question in a variety of ways all of which did not lend to quantitative analysis. Therefore, a sample of only 93 of the 112 respondents was collated, and a Pearson Correlation Analysis was performed utilizing the reported extensive reading data and the reading fluency data.

Responses were by no means homogenous and varied to degrees but participants were categorized into four groups based on estimated similarities in reported reading times. The categories are as follows: (1) no Arabic other than text messages read daily; (2) thirty minutes or less of Arabic reading daily; (3) one hour of Arabic reading daily; and (4) at least two hours of Arabic reading daily. Responses that did not approximate these categories were not analyzed. Utilizing the collated English reading fluency data of the 93 respondents a correlation coefficient of .60743332 was obtained indicating a degree of correlation between reported extensive Arabic reading and English reading fluency.

Ultimately, much of the material collected in the survey reveals a sample of students who considered their education and training in Arabic to be inadequate. Many chose to respond in English and few could name a favorite book in Arabic aside from the Qur’an, a scripture that is more often recited than read by Qataris. Students estimated their reading
time in their native language to be minimal, usually less than an hour a week. Some even
confided that the only thing that they attempted to read in their L1 were text messages. The
few that did score as accurate or fluent readers in Arabic, and likewise tended to achieve
similar results on the English fluency measure, responded that they enjoyed reading in
Arabic and spent on average more than an hour a week reading in their native language.
From the survey a narrative of Qatari reading practices unfolds depicting a generation of
students whose reading attitude and aptitude in both English and Arabic fall short of
university expectations.

Conclusion

Close examination of the data obtained from the English and Arabic fluency measures
attests to a correlation between L1 and L2 reading fluency. The proficiency levels for English
parallel in ascending order participants’ observed reading ability in Arabic. Furthermore,
through correlation coefficients we witness L1 reading fluency emerge as a predictor for L2
reading fluency. Finally, the reading survey illustrates little student ability or enthusiasm for
reading in their native language, yet the more remarkable results obtained by participants
with a discernible affinity for reading in both L1 and L2 sustain hope of a better way forward.
CHAPTER FIVE

Discussion

Introduction

This study attempts to address the lacuna that persists in our understanding of the nature of transfer of L1 reading skills to L2 reading especially in regards to typographically diverse languages such as Arabic. In fact, Arabic and the language specific difficulties that emerge from its orthographic peculiarities and the phenomenon of diglossia which persist throughout the Arab world prompted this research. The results therefore generate implications for both the broader realm of L2 literacy and more exclusively for Arab ELLs and education policy in the Middle East. This study set out to address the following research questions:

(1) Is there a demonstrable positive correlation between academic reading fluency in Arabic and academic reading fluency in English amongst Arab ELLs?

(2) Is there a relationship between reported extensive reading in Arabic and reading fluency in English?

The first question examines L1 and L2 literacy along with transfer, the researcher has elected to focus on the correlation of academic reading fluency in the L1 and L2 of its participants. The data attain their highest correlation between the scores of L1 and L2 fluency through the use of Anderson’s four quadrants with $r = .5695$ and $r^2 = .3243$, of which the implications are numerous. That degree of correlation is not in itself remarkable with a variance of only 32% in English
academic reading fluency accounted for by Arabic reading fluency; however, this is the first attempt to our knowledge of a correlational analysis between reading fluency scores in Arabic and English. This demonstrates that there is a degree of correlation between reading fluency in these two languages. To respond to the second research question, the researcher analyzed the qualitative data obtained from the reading surveys on which a majority (12 of the 13) of the participants who obtained English reading fluency scores reported extensive reading habits in Arabic. The correlation coefficient of Arabic extensive reading and English reading fluency yielded an $r = 0.6074332$ with an $r^2 = 0.3689$. Again these results may not be considered statistically significant, yet to what extent do we expect these variables to correlate. The fact that there is correlation and that 37% of the variance in English reading fluency can be accounted for by reported Arabic extensive reading demonstrates that there is again a degree of correlation. The results therefore can substantiate a broadly generalizable thesis: Reading fluency skills may transfer and although they may not account for all variance, they do account for at least a third of the variance in this case. Extensive reading in one language to some degree will facilitate fluency skills in another. More acutely, the data reveal numerous implications for education in bilingual societies, most especially those of the Persian Gulf nations, which struggle to strike a balance between promoting literacy in their native tongue and preparing a new generation for post-secondary educational opportunities and a professional arena dominated by the English language. Given these bifurcating implications, the conclusions with reference to the transfer of reading fluency skills will be presented and thereafter the more particular implications for Qatar and the Gulf nations will be discussed.

**Implications: transfer of reading skills, “the threshold hypothesis,” and reading fluency**

Any discussion of results employing correlation coefficients must first address the near banal cliché that correlation does not imply causation. Indeed, there may be no arguing with the logic of this terse statement; nevertheless, this study is not so much concerned with causation as it
is with transference. The researcher sought to substantiate previous findings that have indicated that non-L2 specific skills when in existence in either language have a tendency to facilitate reading in both the L1 and the L2. That is to say that the research at hand is concerned more with the possibility of the appearance of these skills, in this case reading fluency, in both languages rather than the cause of its appearance. Operationalizing academic reading fluency, this study has thus augmented earlier research by investigating the transfer of fluency through a correlation analysis.

The results, beyond validating previous research on the transfer of non-L2 specific skills, evince the feasibility of approaching reading fluency as an integral factor in the development of L1 and L2 literacy. The results do suggest a correlation between L1 and L2 comprehension with the highest scoring students in English also exhibiting better comprehension in reading in the Arabic language. Reading speed alone did not indicate such a high degree of correlation; however, with reading rate and comprehension fused, we witnessed the greatest degree of correlation. Moreover, Fluent readers in Arabic achieved on average higher scores on their English reading exams. In fact, Fluent readers in Arabic from all four English proficiency levels reached fluency on the English measure calling attention to the indispensability of promoting fluency skills in our readers. In fact, the data indicate that reading fluency in either L1 or L2 may be a transferable agent and further research can substantiate it as such.

That is not to say that there is no threshold and that L2 proficiency is not a paramount factor in L2 reading, but quite the contrary, reading fluency emerges from the data as a possible transferable agent given that a threshold has been met. The one participant that failed to attain Fluency in Arabic, her L1, but reached Fluency in English may substantiate the threshold hypothesis, despite its intriguing inversion of L1 and L2. The qualitative data she supplied indicate that her minimal exposure to L1 reading was a salient factor in the absence of transfer of her
fluency skills from English to Arabic. Further research into cases such as hers could confirm this hypothesis and the limited sample of bilingually Fluent readers permits only the supposition that a threshold exists that this English Fluent reader did not attain in her Arabic literacy skills. The other twelve students that achieved reading fluency in both languages reported substantial reading in Arabic and a love of Arabic literature, but not all reported a similar attitude towards English literature. Consequently, we can assume that their substantial schooling in English may have provided necessary L2-specific skills to surpass a threshold for transfer of their acquired reading fluency skills; however, the nature of the data permit only assumptions in this matter and more research would be required to localize a threshold, if one exists, in Arabic literacy.

Nonetheless, these results advance a variety of pedagogical implications that extend beyond the two languages of this study, foremost of which is the necessity of fluency training. Clearly, fluency is not a language specific skill, neither is it by any means an effortlessly acquired ability, as the fact that of the 111 Arab participants only 25 were fluent readers—22% of the sample population—undeniably exemplifies. The integration of comprehension and reading rate must therefore occupy a central role in the literacy curricula of any institution. Reported extensive reading as a facilitator of fluency acquisition implies that students must read more to acquire fluency skills. The vast majority of students that failed to demonstrate fluency in their native language in these results also failed to achieve fluency in their second language. Accordingly, in nations currently confronting the near global exigency of fostering bilingualism in their younger generations, L1 literacy training cannot be neglected and should be appreciated as a benefactor for L2 literacy skills. The most significant implication may be the advisability of adopting curricula that promote extensive reading in L1 even at the expense of a balanced bilingual curriculum that aims at equalizing instruction between the two languages. Furthermore, the correlation coefficient of .6074 obtained on the correlation analysis of reading fluency in English and reported reading in
Arabic may signify that promoting extensive reading in any language whether it be in a learner’s L1 or L2 may be beneficial for the development of fluency skills in either language.

**Ideas for further research**

The results attract further questioning about the nature of transfer and the practicability of devising longer-term experimental studies on fluency transfer. The restricted aims of this research and the narrow population that it enlisted limit the generalizability of its results. Consequently, the results call for further research, most particularly in the realm of fluency transfer. Additional studies involving other populations or a variety of languages can strengthen or refute the above assumptions. Moreover, longitudinal experimental studies utilizing a control group and an experimental group that receives fluency training in their L1, or their L2 for that matter, may reinforce the conclusion that fluency is a transferable skill. In summation, Anderson’s four quadrants allow us to approach reading fluency as an investigable variable in transfer of reading skills and more research employing this method can expand the reach of these conclusions beyond the Arab world.

**Implications: Bilingualism in the Gulf**

From its inception this study has aimed to investigate the transfer of reading skills amongst a very specific population, and although it has broader implications, many of the conclusions that can be drawn relate to the educational needs of Arabs in general and more precisely, Gulf Arabs. The results suggest that even successful high-school graduates—all participants had received successful marks on their *Thanawiya* exam (their final secondary-school examination)—struggle to obtain reading fluency on academic texts in their native language. Such difficulties may arise from a number of factors, the most prevalent of which is the diglossia of the Arabic language. The text selected for this study, despite its being academic and expository in nature, should not exceed the capacity of educated readers. In fact, poetic and Qur’anic texts are often considered far more
difficult for Arabic readers due to their high percentage of low frequency words (Abu-Rabia, 1998). Nonetheless, the post-secondary students, all of whom professed their intention to enter university programs in the following year, exhibited severe difficulty in comprehending the text with only 34 participants achieving a comprehension score of 70% or higher. The picture becomes far more dismal when the general Qatari primary and secondary school population’s Arabic skills are assessed. In a 2009 study of Qatari students’ performance in their core curriculum, only 6% of independent school students achieved the Qatari Supreme Education Council’s standards for overall performance in Arabic (Gonzalez et al., 2009).

Diglossia and the orthographic complexity of the language remain issues of paramount importance that have failed to be addressed by curricula in the Arab world despite numerous calls for revising its instruction in educational policy throughout the region (Abu-Rabia, 1998; Maamouri, 1998; Ibrahim, 1983). Ibrahim (1983) opined that before all else Modern Standard Arabic must be recognized and treated as a foreign language inveighing against those that pretend “that standard Arabic is our native language when it is not” (p. 514). This cuts to the heart of the problem at hand, namely that MSA must be appreciated as a second language for Arab students and that the pedagogical implications of this statement must likewise be curricularized. The results of this study corroborate the threshold hypothesis and thus reveal a necessity for students to reach a threshold in their L2 before good reading skills such as fluency can transfer; however, many of the participants never obtained fluency in their first language, and therefore fluency skills remained underdeveloped in both L1 and L2 evincing the need to bolster L1 literacy skills as a means of fostering fluent bilingual readers.

The implications of this research become ever more acute when its focus is narrowed to the six Gulf nations (Qatar, Kuwait, United Arab Emirates, Bahrain, Saudi Arabia and Oman), where bilingualism is a *sine qua non* for entry into an ever more demanding professional arena. An ever-
growing trend in the region has been to face the human capital challenges posed by the technical requirements of extracting wealth from the vast oil and gas reserves found in these countries through the importation of foreign skilled labor (Gonzalez, Karoly, Constant, Salem, & Goldman, 2008). This has only heightened the need for bilingualism in the Gulf States as English has become not only a language of business and a lingua franca for even the simplest of daily transactions but also a requisite for any entrepreneurial or professional employment.

Given the emergent necessity of English language skills to enter even the national university programs in the State of Qatar, entities as diverse as government enterprises and paterfamilias constrain the younger generations to study English at the expense of Arabic. English is stressed to such a degree that flagship K-12 schools, such as Education City’s Qatar Academy, built to service the indigenous Qatari population, have adopted an all-English curriculum—all core subjects are instructed in English, with only a few minimal hours of Arabic instruction, that is Arabic language instruction, per week. This frenzy of interest in English instruction has dislocated a younger generation from its Arabic traditions and failed to produce the requisite language skills for entrance into English-language university programs (Stasz, Eide, & Martorell, 2007).

The data obtained in this study contradict the escalating tendency to promote L2 instruction at the expense of Arabic instruction. Reading fluency, a precondition to success in university, can be cultivated through considerable investment of time and educational resources in literacy programs. While Qatar and many of its Gulf neighbors deliberate how to confront the challenge of developing fluent speakers of English, devoting the lion’s share of educational resources to L2 instruction to the detriment of literacy instruction may prove unfruitful. These data demonstrate that although English proficiency may be a strong predictor of Arabic comprehension, the number of participants that achieved Arabic fluency (25) nearly doubled the number of fluent readers of English (13). It can be surmised that despite the difficulties posed by diglossia and Arabic’s
orthographic complexity, Arabs can more readily develop fluency skills in Modern Standard Arabic, due to its grammatical, lexical, and syntactical affinities to their spoken vernaculars, than they can in English.

The way forward may be, as Maamouri suggested, a literacy curriculum for Arabs that incorporates elements of L2 reading instruction. Certainly, a more aggressive approach to Arabic instruction would be amenable to a culture that cherishes its language as sacrosanct and would also foster the fluency skills necessary for transfer. The development of such a program would take into account the linguistic distance of students’ vernacular from MSA, incorporate fluency practices that boost both comprehension and reading rate, and stimulate extensive reading. Ultimately, this research suggests that a new balance must be struck between English and Arabic literacy instruction that can promote the acquisition of sufficient reading skills in students’ L1 and produce adequate proficiency in L2 to permit transfer.

**Ideas for future research in the Gulf States**

Although researchers have expended considerable effort and improved our knowledge of Arabic literacy, the shift in the needs of the Arab world and most especially the nations of the Persian Gulf requires a new dimension to literacy research. We must now examine the best practices for developing bilingual readers of both Arabic and English. This presents a novel challenge for researchers, educational institutions, and governments alike that must now consider an appropriate balance of these two languages to optimize literacy skills. Utilizing an experimental and longitudinal model, researchers can investigate whether intensified Arabic literacy instruction will yield improved reading fluency in both English and Arabic. Likewise, longitudinal studies that take an opposite approach, namely to what extent English instruction improves performance in Arabic, may generate intriguing results. Transfer from L2 to L1 remains a field that has not yet received a significant amount of attention, and bilingual societies in which the L1 is diglossic may
offer fertile ground for such research. At a time when the world is at the cusp of a linguistic revolution, when the need for English literacy is extending throughout the globe, investigations into the best pedagogical practices for states like Qatar that take into account cultural as well as educational prerogatives may enhance our knowledge of bilingualism and thus prepare our schools for a new world.
References


Dakroub, H. (2002). *The Relationship between Arabic language literacy and academic achievement of Arab-American middle school students in English reading, language,
and mathematics in a suburban public middle school (Doctoral dissertation, Wayne State University). Retrieved from
http://search.proquest.com/docview/85581072?accountid=4488


doi:10.1016/j.neuroling.2010.10.003


honor of Alexander Barzel (pp. 251-271). Haifa, Israel: Israel Institute of Technology, Department of General Studies.


doi: 10.1007/s11145-005-3180-4


Consent to be a Research Subject

Introduction
This research study is being conducted by Jonathan McCollum and Dr. Neil Anderson of Brigham Young University to determine the fluency of Arabic readers in English. You were invited to participate because you have learned to read in both the Arabic and English languages.

Procedures
If you agree to participate in this research study, the following will occur:

- you will be complete a 20-minute survey of your reading habits
- you will complete a 40-minute English reading examination
- you will complete a 40-minute Arabic reading examination
- total time commitment will be 100 minutes

Risks/Discomforts
There are minimal risks for participation in this study. You may, however, feel some discomfort when answering questions about your reading habits. Note that all of the survey results will be kept confidential and not used for any other purpose than to conduct research.

Benefits
There will be no direct benefits to you. It is hoped, however, that through your participation researchers may learn about how to improve reading instruction in both Arabic and English.

Confidentiality
The research data will be kept in a secure location and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept in the researcher’s locked cabinet and destroyed.

Compensation
Participants will be entered into a drawing for the chance to win a free Apple I-Pad. The winning name will be selected at random and you will be notified shortly after you complete all exams if you have won.

Participation
Participation in this research study is voluntary. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to your class status, grade, or standing with the school.

Questions about the Research
If you have questions regarding this study, you may contact Jonathan McCollum at claymore.mccollum@gmail.com for further information.

Questions about Your Rights as Research Participants

If you have questions regarding your rights as a research participant, contact IRB Administrator at +1 801-422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu.
-or-
Mr. Bob Campbell, EFL Department Supervisor, Academic Bridge Program, P.O. Box 24404, Doha, Qatar
Tel: 974-4454-2146
Statement of Consent
I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Name (Printed): ____________________ Signature ____________________ Date: ________
APPENDIX B

English Academic Reading Fluency Exam

Part II: Reading Comprehension Test (40 minutes)

Read the following passage carefully. You will answer 10 multiple-choice questions and 8 fill-in blanks.

Passage 1

What’s Wrong with Our Weather

1. Something strange is happening to our weather. During the past two decades, the United States has seen three of the coldest winters and five of the warmest average years ever recorded. Elsewhere, weather has also been extreme: the former Soviet Union and India have experienced their highest temperatures ever, and snow has been falling on the usually sunny beaches of the French Riviera, South Africa, and even subtropical Brazil.

2. Scientists have several theories to explain why our weather is going wild, but no single one of which offers a satisfactory reason for our strange weather. Together, however, they begin to explain the climate puzzle.

3. **Greenhouse Gas.** When we burn fossil fuels (coal, for example), we send extra quantities of carbon dioxide (CO₂) into the atmosphere. Since 1958, the proportion of CO₂ in our air has risen 25 percent. Many scientists think that within a century this simple gas could devastate our world.

4. How? Carbon dioxide in our atmosphere, like the glass in a greenhouse, lets sunlight pass through, then catches and retains some of the sunlight’s energy as heat. This greenhouse effect warms the earth’s climate. If CO₂ and other greenhouse gases vanished tomorrow, the earth would become overnight a frozen, lifeless world like Mars. But if these gases build up too much in the atmosphere, we get overheated. And in fact, all these gases have been increasing since the start of the Industrial Revolution.

5. Atmosphere scientists say that CO₂ causes about half the greenhouse effect. Each year our skies receive five billion tons of CO₂ from the burning of fossil fuels, and up to half as much from the clearing and burning of almost 33 million acres of tropical forest. At the present rate of increase, the amount of this gas alone could double during the next century.

6. One scientist calculates that the earth’s average temperature already has risen during this century by one degree Fahrenheit, almost certainly because of the increase in greenhouse gases. Even without further atmospheric pollution, he estimates that trapped heat from gases we’ve already put in our skies will boost global temperatures another one to five degrees over 1980 levels in the next century.

7. A warming of just a few degrees seems small until we realize that it approximates the rise in temperature that ended the last major Ice Age 100,000 years ago. If we don’t slow the rate of warming, researchers fear that droughts and forest fires will become normal summer weather, while giant hurricanes will hit farther north and during more months of the year. And that’s just the beginning. As the warming continues, according to this theory, polar icecaps will melt and ocean
levels will rise by up to four feet during the next century, threatening such cities as New York, London, Shanghai, and Seoul. Farmland will be devastated and water supplies contaminated.

8Seeing Spots. Scientists used to assume that our sun shines with constant, steady brightness. But recent satellite measurements have confirmed that the sun turns its temperature up and down based on the 11-year cycle of magnetic "sunspots." The more spots, the brighter the sun.

9The present cycle should peak around 2001, when our sun might burn even hotter than during the last sunspot peak, around 1990. But, oddly, recent studies indicate that this could bring colder winters as well as hotter summers for much the Northern Hemisphere. Sunspots are thought to influence global wind patterns, and one effect is that a peak in sunspot activity tends to bring more cold air southward.

10In addition to this 11-year cycle, there are longer ones—including an 80- to 100-year cycle that will heat to a peak around the year 2010, bringing an even brighter sun. But when sunspot numbers return to normal, the earth’s climate could cool quickly—quite possibly more quickly and much cooler than we’d like.

11Clearly, many different forces are now shaping and bending the earth’s climate. The past two decades have seen some wild weather, and the next one may well bring extremes unknown in living memory. But this need not bring disaster.

12Science and common sense offer ways to minimize the risk of devastating climate change. We can slow down the building of CO₂ in our atmosphere by increasing energy conservation; by protecting tropical forests; by designing automobiles that burn less gas per mile; by turning to renewable energy sources such as solar, hydro, wind, and possibly nuclear power. Fortunately, we have the tools for preventing disaster. It only remains for us to use them.

Time:____________________
**Question Set 1:** Choose the **best** answer for each question based on the passage you read.

1. What is the main idea of the passage? __________.
   a. Scientists warn people of possible disasters that might be caused by devastating climate change.
   b. The strange weather change may seem to be a puzzle to us but scientists know why it is happening.
   c. The greenhouse effect and sunspots provide reasonable explanation for strange weather changes.
   d. Something strange is happening to our weather and the amount of CO₂ in the atmosphere is responsible for that.

2. In the author’s opinion, the greenhouse-effect theory and the sunspot theory ___________.
   a. satisfactorily answer the question why the weather is getting strange.
   b. considered together, may partly explain the climate puzzle.
   c. are both less probable than the next Ice Age.
   d. provide a thorough explanation for the climate change.

3. According to the text, the so-called greenhouse gases __________.
   a. are beneficial to the Earth in the right quantities.
   b. are up to five billion tons in total.
   c. are primarily caused by the burning of forests.
   d. started to increase a decade ago.

4. It can be inferred from the passage that ___________.
   a. It is very cold on Mars.
   b. There are more greenhouse gases on Mars.
   c. CO₂ will vanish in a short period of time.
   d. The greenhouse gases on the earth will also affect Mars.

5. The clearing and burning of tropical forest causes about __________ of CO₂ each year.
   a. 5 billion tons
   b. 2.5 billion tons
   c. half of the total amount
   d. 25% of the total amount

6. If the greenhouse effect continues, researchers’ predictions for the future include all of the following EXCEPT __________.
   a. another Ice Age.
   b. droughts and fires.
   c. giant hurricanes.
   d. flood along coastal areas.

7. According to the sunspot theory, __________.
   a. cold air goes southward as sunspots decrease in number.
   b. the Earth could become cooler and cooler after 2010.
   c. the sun shines with steady brightness.
   d. a brighter sun leads to colder winters as well as hotter summers.
8. If we had more knowledge about science and better common sense, we would _________.
   a. weaken sunspots activities
   b. adjust to climate changes
   c. prepare for natural disasters
   d. reduce the burning of fossil fuels

9. What does the author suggest that we should do to solve the weather problem? _________.
   a. People should learn more science and have common sense about weather change.
   b. People should pay attention to weather forecasts and learn to protect themselves.
   c. People should avoid the peak of sunspot activity by turning to solar energy.
   d. People should reduce the amount of carbon dioxide (CO₂) they produce.

10. How will you describe the author’s position toward the topic under discussion? _________.
    a. emotional and pessimistic
    b. factual but optimistic
    c. complaining about the current situation
    d. criticizing people’s behavior
The information in the reading is organized in the following charts. **Complete** the charts by **filling** in **8** blanks. Refer back to the reading if necessary. You may use your own words or words from the text, use complete sentences, phrases, or just key words.

**About CO₂ (Paragraph 3-5)**

- **CO₂: one of the greenhouse gases**
  - **Source:** where is CO₂ from?
    - From burning of fossil fuels
  - **Function:** how does CO₂ work?
    - 1.
    - 2.
  - **Role:** to keep the earth warm
    - If vanished, the earth gets frozen and lifeless.
    - If too much, the earth gets overheated.
Strange weather (Paragraph 1, 2, 11, 12)

Strange weather in the past two decades
Examples:
• coldest winters and warmest average years in the United States

3.

4.

To slow down the building of CO₂ in the atmosphere by...

5.

6.

7.

8.
APPENDIX C

Arabic Academic Reading Fluency Exam

أقرأ النص، واكتب الوقت الذي استغرقه في القراءة.

إذا كنت متفائلاً، فلا تهان الفوز في ذلك اليوم، وإنما احتفل به. اليوم كان مثالاً على القوة والصبر والتفاؤل. احتفل بالنجاح الذي انجازته، وأحيّي نفسك أنك قمت بإنجاز كبير.

وقت: [ندب لوحة زمنية للإجابة]

د. محمد جابر الأنصاري
مجموعة السؤال الأول:  اختر الإجابة الصحيحة لكل سؤال مما يلي بناء على المقالة التي قرأتها:

1- ماهي الفكرة الرئيسية لهذه المقالة؟
أ- اللهجات العربية مختلفة أصولها الفصحى ولكنها استمرت بسبب الأمية.
ب- الفروق اللغوية بين اللهجات المختلفة تعني بسبب استخدام الفصحى.
ج- الوسائل الإعلامية الحديثة والزيادة في التفاعلات التجارية والهجرة جميعها تخلق محكية عربية جديدة شاملة.
د- القاعق والتفاعل مع لهجة الحجاز سوف تخلق محكية عربية لهجات السعودية المصرية والسودانية.

2- في رأي الكاتب للمقالة، أن اللهجة المصرية شبه مستوطنة في الداخل العربي، وتتأثر بها بسبب:
أ- المغتربين المصريين مثل أم كلثوم وفريد الأطرش.
ب- انتشارها من خلال الأفلام والأغاني والخطاب السياسي.
ج- تلاقيها مع اللهجة اللبنانية.
د- أنها مفهومة لكل العرب في جميع أنحاء العالم.

3- جميع العبارات التالية حقيقة عن اللهجة العربية، فيما عدا:
أ- اللهجة الخليجية تنشر بسبب السفر والموسيقى.
ب- اللهجة الخليجية تنشر بسبب السفر والموسيقى.
ج- اللهجة السعودية (لغة الحجاز) أكثر بروز.
د- اللهجة السودانية مع المصرية مثال للمزيج بين اللهجات.

4- كاتب المقالة معتقد أن:
أ- اللهجات العربية أكثر تقليدية اليوم، عنها في ال 50 سنة الماضية.
ب- اللهجات العربية لامركز في اللهجات العربية.
ج- النصفي في خطر بسبب انتشار اللهجة اللبنانية واللهجات الأخرى.
د- توزيع المفردات والتعبيرات وتكوين اللهجات قد بسبب حيرة وإزبياك.

5- أي الفقرات التالية (صحيح): وفقا لما جاء في نص المقالة؟
أ- قد تتطور اللهجات في تفاعلات الحياة اليومية في البلد العربي الواحد.
ب- اللهجات يجب أن لا تتطور على أساس بيولوجي.
ج- تلاقح اللهجات يمكن أن يساهم في تعاعد المسافات اللغوية.
د- تنوع المفردات والتعبيرات وتكوين اللهجات قد يسبب حيرة وارتباك.

- الفكرة الرئيسية لللفظة الرابعة من المقالة أن —

أ- اللغة المصرية مستمرة كما لو كانت اللغة المستوطنة الوحيدة للمحكمة العربية.

ب- التلاقح ثم الإنصهار التدريجي اللهجات المصرية سوف يعوض الوطاء إلى تطور محاكية عربية مشتركة.

ج- التفاعلات اللغوية قد يسبب تعددية ثقافية وانتشار لهجات عربية متعددة.

د- الحياة اليومية والواقع المعيشي يساهمون في التأثير على اللغة العربية والتعددية الثقافية.

- في رؤى الكاتب المقالة، العولمة والتطورات العلمية: —

أ- كأن لها تأثير عميق على القومية والتضامن العربي.

ب- سوف تسهم في اعتماد الصحي كونها المحكمة العربية الوحيدة المجدية والقدرة على البقاء.

ج- تعتبر تطورات إيجابية يؤدي إلى تعقيد التفاعلات اللغوية في الحياة اليومية.

د- تأثير المفردات والقواعد لظهور محاكية عربية مشتركة.

- نستطيع أن نستنتج أن المقالة أن الكاتب لايخشي على الصحي بسبب —

أ- أنها مستمرة ودTECTED فقط في النصوص العربية المكتوبة وبالتالي سوف يتم في المدارس.

ب- سوف يتم التحدث بها على نحو واسع بسبب إنشاء التطورات العلمية.

ج- أنة مصرية ويفضل هذه اللهج إلى الصحي.

د- أنها تأثر اللهجات العربية وهي التي تمده بالمنفدت والتعبيرات.

- أسباب سريادة اللهجات الغنية المضمنة تشمل جميع ما بلاء (فهما عدد) :

أ- الأممية اللغوية.

ب- الأعاني والإعلام تتألف من لهجة معينة.

ج- العزلة الجغرافية.

د- النفس في التعليم.

- كيف نقوم بوصف موقف الكاتب تجاه الموضوع تحت المناقشة —
• مجموعة السؤال الثاني
العلومات في المقالة المقرؤة تم ترتيبها في الجداول التخطيطية التالية
اكل المخططات بأن تعلما الـ8 مواقع الفارغة. يمكنك الرجوع لقراءة المقالة "إذا نزعم الأمر". كما يمكنك استخدام مفرقات وكلمات خاصة بك أو كلمات من النص، أو فقط كلمات دالة على المعنى.

النص الصغير المشترك (الفقرة رقم 1):

<table>
<thead>
<tr>
<th>الوضع الفضائي</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>وسائل الاتصال المختلفة</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

من التباعد إلى التلاقح (الفقرة رقم 4 & 5):

<table>
<thead>
<tr>
<th>الوضع الفضائي</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>الرؤية العربي</td>
<td>5</td>
</tr>
<tr>
<td>الرؤية النهائية</td>
<td>6</td>
</tr>
<tr>
<td>الرؤية النهائية</td>
<td>7</td>
</tr>
<tr>
<td>الرؤية النهائية</td>
<td>8</td>
</tr>
</tbody>
</table>

يرجى ملاحظة أن الجدول والرسوم البيانية يمكن تفكيكها أو تفسيرها بناءً على المحتوى المقدم.
English Translation of Arabic Academic Reading Fluency Exam

Directions: Read the following text and write the time it took you at the bottom of the page.

Which future does it have with Fusha? A new Arabic vernacular at the moment of birth
Dr. Muhammad Gaabir Al-Ansari

1--The Arabs today are passing through a shared linguistic (blast) furnace, strong of effect, whose outcome in our estimation will be the growth and development of a new, all inclusive Arabic spoken language into which will melt all the Arabic dialects which are interacting in this age through the satellite channels and songs and various means of communication and through the emigration of Arab workers which has been ongoing for decades and commercial investment interactions on the level of businessmen and increasing Arab tourism between the various regions of the Arab Homeland. It should not escape our attention in this area that the Egyptian dialect has become a semi-colonizing Arabic dialect in the Arab mind, east and west equally, through radio and film and songs since the spread of the songs of Um Kalthoum and Farid Al-Atrash and others in the 40s to the influence of the Egyptian TV series currently without ignoring the influence of the Egyptian political message speech of Abd Al-Nasser to Hosni Mubarak... when it has the flavor of the beloved Egyptian dialect.

2-- Today when I hear the Lebanese dialect or any other dialect on some of the Arabic channels I am no longer gripped by my fears for Fusha. The Lebanese dialect today, over the channels, is becoming cross-polinated with the Egyptian dialect which is stored in the linguistic vessels of Arabs along with their local dialects, and with the western dialects which have started to become familiar to eastern ears to the gulf dialects which are spreading out due to tourism and songs - from Marakesh to Bahrain - and which Arab workers coming to the gulf spread when they return to their home countries. It is worth noting that the spoken dialect of the western part of Saudi Arabia (the dialect of the Hijaz) is in a position to be the foremost small project for a shared spoken Arabic which mixes between local Saudi dialects and Egyptian colloquial and Sudanese colloquial because of the interaction of these dialects and their historical human melting over time.

3-- The sure thing is that the degree of closeness between the Arabic dialects today is better by far than the situation of ‘farness’ which was happening between them a half century ago or more, even if Arab linguists have neglected studying our linguistic reality in its true light.

From Distance to Cross-Polination

4-- This situation of linguistic distance between Arabic on the level of daily life and living linguistic interaction - even in a single Arab country sometimes - we find that today it has gradually changed to a situation of cross-pollination and mixing, and then melting between the various local Arabic spoken vernaculars in their vocabulary and expressions and constructions which indicates the birth of a shared, close Arabic vernacular which could develop with continued interaction with the tongues of Arabs among themselves due to the factors we have mentioned, and that is an opening and an interaction which is a result of scientific developments and the spread of multinationalism and perhaps this is one of its positive aspects as regards the deepening of linguistic interaction among the Arabs on the level of daily life and living reality.

5-- It is necessary to stress an important characteristic in this new linguistic formulation and it is that the Arabic dialects with their origins in Fusha are pouring into this wider Arabic linguistic stream while Fusha is providing it (the stream) with a lot of its vocabulary and expressions. So
with the spread of education and culture in the various Arab regions, those able to speak in a
dialect ‘laded’ with Fusha have increased to a great extent. Thus the ‘closening’ and Arabic
linguistic ‘unifying’ are tied to the spread of education and the eradication of illiteracy, while the
narrow sovereignty of the colloquial dialects, its historical origin basically is linguistic illiteracy in
addition to geographical isolation. If the interaction between Arabs today - with planning or the
coming change with multinationalism – will go beyond the handicapped workers mentioned, so we
have to wait for the birth of this shared Arabic vernacular which various interacting Arabic dialects
(among themselves, today) will participate in its birth in addition to Fusha Arabic. It is necessary
to point out that one of the positive aspects of the Islamic Awakening is that it concentrates its
message on Fusha - Quran-wise, and Hadith-wise and sermon-wise - in a way that forms a support
for Fusha and its role in forming this new Arabic vernacular, and this after sifting the old, rigid
linguistic style which represented a threat to the future of the language.
**Question Set 1:** Choose the best answer for each question based on the passage you read.

1. What is the main idea of the passage? ____________.
   a. Arabic dialectics have their origins in Fusha but persist because of illiteracy.
   b. Linguistic distance between dialects is narrowing because of the use of Fusha.
   c. Modern media, increased business and migration are creating a new, inclusive Arabic.
   d. Interaction in the Hijaz is creating a new inclusive Arabic from Saudi, Egyptian, and Sudanese dialects.

2. In the author’s opinion, the Egyptian dialect has had a semi-colonizing influence because ____________.
   a. of its famous singers like Um Kalthoum and Farid Al-Atrash.
   b. of its spread through film, songs, and political messages.
   c. of its cross-pollination with the Lebanese dialect.
   d. it is understood by many Arabs throughout the world.

3. All the following statements are facts about Arabic dialects EXCEPT ____________.
   a. Gulf dialects are spreading due to travel and music.
   b. Arab workers spread the Gulf dialect on returning home.
   c. The Saudi dialect of the Hijaz is the most prominent.
   d. The Saudi, Egyptian, and Sudanese is an example of mixing.

4. The author believes that ____________.
   a. the Arabic dialects are closer today than 50 years ago.
   b. Arabic linguists are not studying Arabic dialects.
   c. that Fusha is in danger from the spread of the Lebanese and other dialects.
   d. the Egyptian dialect should be stored in Arabs’ minds.
5. Which of the following statements is TRUE according to the text? ____________.
   a. Dialects may mix in daily interaction in a single Arab country.
   b. Dialects should not mix on a daily basis.
   c. The cross-pollination of dialects may contribute to linguistic distance.
   d. The varied vocabulary, expressions, and constructions of dialects may cause confusion.

6. The main idea of paragraph 4 is that ________________
   a. The Egyptian dialect will continue as the only colonizing dialect of spoken Arabic.
   b. Cross-pollination and eventual melting of dialects will give rise to a shared, spoken Arabic.
   c. Interaction may cause multiculturalism and the spread of a variety of Arabic dialects.
   d. Daily life and living reality contribute to the influences on Arabic language and multiculturalism.

7. In the author’s opinion, multinationalism and scientific developments ________________
   a. have had a great impact on Arab nationalism and solidarity.
   b. will cause Fusha to be adopted as the only viable vernacular for Arabs.
   c. are positive developments that lead to a deepening of contact in daily life.
   d. provide the vocabulary and grammar for the emerging common Arabic vernacular.

8. We can infer from the article that the author does not fear for Fusha because ____________
   a. It will remain the only written Arabic text and thus will be learned at schools.
   b. It will be spoken more widely because of the spread of scientific developments.
   c. he is Egyptian and prefers that dialect to Fusha.
   d. It is the root of Arabic dialects and it provides them with vocabulary and expressions.
9. Reasons for the persistence of narrow dialects include all of the following EXCEPT:
   a. Illiteracy
   b. Songs and films composed in dialect.
   c. Geographical isolation.
   d. Lack of education.

10. How will you describe the author’s position toward the topic under discussion? ____________.
   a. emotional and pessimistic
   b. factual but optimistic
   c. complaining about the current situation
   d. critical of people’s dialects
Question Set 2

The information in the reading is organized in the following charts. **Complete** the charts by **filling** in 8 blanks. Refer back to the reading if necessary. You may use your own words or words from the text, use complete sentences, phrases, or just key words.

A shared linguistic furnace (Paragraph 1)

<table>
<thead>
<tr>
<th>satellite channels</th>
<th>1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>various means of communication</td>
<td>2.</td>
</tr>
<tr>
<td></td>
<td>3.</td>
</tr>
<tr>
<td></td>
<td>4.</td>
</tr>
</tbody>
</table>

all inclusive Arabic spoken language

From distance to cross-pollination (Paragraph 4 & 5)

<table>
<thead>
<tr>
<th>Origins: 5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Arab dialects</td>
</tr>
<tr>
<td>wider Arabic linguistic stream</td>
</tr>
</tbody>
</table>

6. 7. From Fusha

8.
Appendix D

Reading Survey

المعلومات: من فضلك أجب عن الأسئلة الآتية:

- تاريخ الميلاد:
  _______________________________________________________________
  _____________________________________________________________

ما هو عنوان كتابك المفضل؟
  ______________________________________________________________

ما هو الفيلم المفضل لديك؟
  ______________________________________________________________

ما هو نوع الموسيقى المفضل لديك؟
  ______________________________________________________________

ما هي بعض هواياتك؟
  _______________________________________________________________

بعد إتمامك برنامج الجسر الأكاديمي أين تتنوي أن تدرس؟
  _______________________________________________________________

1- ماذا تعني لك كلمة (إقرأ)؟
  _______________________________________________________________

2- هل تستمتع بقراءة اللغة العربية؟
  _______________________________________________________________

3- ما المدة التي تقضيها يومياً (في المتوسط) في قراءة اللغة العربية؟
  _______________________________________________________________

4- ما هي أنواع الموضوعات التي تقرأها باللغة العربية؟
  _______________________________________________________________

5- لماذا تقرأ هذه الموضوعات؟
  _______________________________________________________________

6- هل تستمتع بقراءة اللغة الإنجليزية؟
  _______________________________________________________________

7- ما المدة التي تقضيها في القراءة يومياً (في المتوسط) باللغة الإنجليزية؟
  _______________________________________________________________

8- ما هي أنواع الموضوعات التي تقرأها باللغة الإنجليزية؟
  _______________________________________________________________
9- لماذا تقرأ هذه الموضوعات؟

10- هل تعرف شخص تستطيع أن تطلق عليه (قارئ جيد)؟

11- ما الذي يجعل هذا الشخص قارئ جيد؟

12- هل تعرف شخص تستطيع أن تطلق عليه (قارئ ضعيف)؟

13- ما الذي يجعل هذا الشخص (قارئ ضعيف)؟
14- اكتب في الأرقام المسلسلة خمسة أشياء تعتبر أنها تقوي مهاراتك في القراءة؟ (سواء في اللغة العربية أو اللغة الإنجليزية).

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

15- اكتب في الأرقام المسلسلة خمسة أشياء مفضلة لديك لتحسين مهاراتك في القراءة؟

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________

_____________________________________________________________
INFORMATION QUESTIONNAIRE and READING SURVEY

INSTRUCTIONS: Please answer the following questions.

What is the title of your favorite book? _____________________________

What is your favorite movie? _____________________________

What is your favorite type of music? _____________________________

What are some of your hobbies? _____________________________

____________________________________________________________________

Upon completing your schooling at the Academic Bridge Program, where do you intend to study? _____________________________

____________________________________________________________________

1. What does it mean to read? _____________________________

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

2. Do you enjoy reading in Arabic? yes no

3. How long do you read daily (on an average) in Arabic?

____________________________________________________________________

4. What type(s) of material(s) do you read in Arabic?

____________________________________________________________________
5. Why do you read this/these material(s)? _____________________________

__________________________________________________________________

6. Do you enjoy reading in English? yes no

7. How long do you read daily (on an average) in English?

__________________________________________________________________

8. What type(s) of material(s) do you read in English?

__________________________________________________________________

9. Why do you read this/these material(s)? _____________________________

__________________________________________________________________

10. Do you know someone you would say is a good reader? yes no

11. What makes this person a good reader? _____________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________

12. Do you know someone you would say is a poor reader? yes no

13. What makes this person a poor reader? _____________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________

__________________________________________________________________
14. List five things you consider **strengths** about your reading (in either your first or your second language).

1. ____________________________________________________________
2. ____________________________________________________________
3. ____________________________________________________________
4. ____________________________________________________________
5. ____________________________________________________________

15. List five things you would like to **improve** in your reading (in either your first or your second language).

1. ____________________________________________________________
2. ____________________________________________________________
3. ____________________________________________________________
4. ____________________________________________________________
5. ____________________________________________________________