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**Relationships Between Reading in English
and the L1 and L2 (Armenian and/or Russian)
Language Proficiencies**

A thesis submitted in satisfaction of the
requirements for the degree Master of Arts
in Teaching English as a Foreign Language

by

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... our pursuit of understanding (or truth) is inevitably a little like chasing *something*, but we don't know what, *somewhere*, but we don't know where, *somehow*, but we don't know how. (van Lier, 1994, p. 329).

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ABSTRACT OF THE THESIS

Relationships Between Reading in English
and the L1 and L2 (Armenian and/or Russian)

Language Proficiencies

by

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Master of Arts in Teaching English as a Foreign Language

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This study investigated the potential of the relationship between the English reading proficiency of the Intensive English Program (IEP) students at the American University of Armenia (AUA) as measured by their reading comprehension scores in their Test of English as a Foreign Language (TOEFL) results and their L1 and /or L2 (Armenian and/or Russian) overall proficiency as measured by their final marks in Armenian and Russian at the secondary school. Participants were 88 students of the IEP at AUA, Yerevan, Armenia. This study was an ex post facto design. To get the statistical description of the variables in terms of their mean, mode, median, standard

deviation, and range, the Univariate Procedure was employed. To investigate the existence of any statistically significant relationship between the variables, that is, to be able to answer the research question, General Linear Models Procedure, the multivariate or multifactor analysis, with an alpha level of .05 was used. The two analyses conducted with the purpose of answering the research question yielded the following results. In the first analysis when the participants of the study were grouped with 0.5 difference in the knowledge of Armenian and Russian, there appeared to be no relationship between the two variables. Given the sample size, this seems to suggest that the 0.5 increase in Armenian and Russian (L1 and/or L2) proficiency might be insufficient to reveal the increase in L2 (English) reading ability. The results of the second analysis, when proficient or competent in L1 and L2 participants were compared to the weak in their L1 and L2 students, namely, when only "5"s in both Armenian and Russian languages and Literatures were contrasted with "4"s and "3," showed that there is statistically significant relationship between the knowledge of the participants in Armenian and Russian as measured by their school marks and their TOEFL reading scores.

Thus, while the results of the first analysis failed to show any statistically significant difference between the mentioned variables, the results of the second analysis which is less problematic showed a significant pattern of dependence: the level of the L1 and /or L2 proficiency did have effect on the TOEFL reading score, $F=3.37, p > 0.0399$. As no conclusive statement can be made regarding the issue, a follow-up study seems a must.

CHAPTER 1: INTRODUCTION

1.1. Introduction

The pursuit of truth in both the theory and practice of Second Language Acquisition (SLA) has been equally painful and controversial. It seems somehow that there is a preordained pattern of evolution in human thought: from extremes to golden mean, although each time this cycle is repeated in a different context. The question is whether we will ever discover what van Lier (1994) calls "the hazy star of a 'maturity' based on grand theory and homogeneity of aims and methods" (p. 341) in SLA.

However, we can never stop seeking the truth: although curiosity killed the cat, it facilitated the progress of humanity. Curiosity is the driving force for asking questions and looking for answers to them. Children ask questions the answers to which help them explain and understand the world they live in. Likewise, scientists ask questions answers to which help us explain and understand the world we live in. So, research, this "organized, systematic search for answers to the questions we ask" (Hatch & Lazaraton, 1991, p. 1) is also driven by curiosity.

This study is no exception: it is an attempt to find answers to a question that has been haunting me for a long time. I have always wondered if literacy development in one's L1 has any effect on that same phenomenon in his or her second (or foreign) language. Thus, this study deals with issues having to do with one's language proficiency in L1 and academic literacy development in terms of reading skills development (I realize that literacy is much a wider phenomenon than only reading skills development) in his or her second or foreign language.

1.2. Organization of the Thesis

To explore the potential existence of relationships between reading in English and L1 and L2 (Armenian and/or Russian) proficiencies, the following organizational structure has been adopted:

- 1) Chapter 1 introduces historical developments in both theory and research in the field with regard to the issue in question, poses the research question, and discusses the relevance of the research to the Armenian context.
- 2) Chapter 2 presents the methodological approach of this study, including the description of its participants, materials, and procedures used to cope with the task.
- 3) Chapter 3 explores the data analysis in detail. First, to get the statistical description of the variables, the Univariate procedure is employed. Next, the variables are checked to see if they meet the requirements for a two-way ANOVA. Following this analysis, two versions of the multifactor analysis, General Linear Models Procedures, along with their results are presented.
- 4) Chapter 4 synthesizes the analysis into a set of conclusions while considering the findings of the research in view of the ESL reading theory they seem to support, discusses potential threats to internal and external validity of the research, reasons for the necessity of a follow-up experiment that will investigate the relationship between reading in English and L1 in the Armenian context as thoughtfully and accurately as possible, and attempts to evaluate this study in terms of its overall value and significance for the field in Armenia.

1.3. Historical overview of theoretical developments

Given the general trends in the development of SLA, perhaps we should not be surprised that human thought, with regard to both the role of L1 and significance of reading in learning a second language, has historically evolved in much the same way as the field itself. One can hardly disagree with Samuels & Kamil (1988) that "...the developer of a model of reading has only a limited base to draw upon, and this knowledge base is influenced by the scientific philosophies and studies dominant within the historical context in which the model was developed" (p. 25).

In terms of reading models, the two extremes have been the bottom-up and top-down approaches, otherwise called data-driven and concept-driven, because the former is evoked by the incoming data while the latter is assumed to function as a concept or abstract formula based processor. In the 1940s and 1950s, the dominant philosophies in psychology and linguistics, behaviorism and structuralism respectively, determined the promulgation and implementation of the decoding perspective on reading. Both for the L1 and L2, reading was seen as a passive, bottom-up decoding process in which crucial importance was assigned to how stimuli such as printed words and word recognition responses became associated. Phoneme-grapheme relationships, sound-symbol correspondence, and word-sentence and sentence-text relationships were to determine the reader's interpretation of the text. While the emphasis was on the observable, measurable aspects of reading behaviors, the mind, this intangible human property, along with its mental processes, continued to be ignored.

The late 1960s and 1970s were a kind of Renaissance both for the field of SLA at large and for reading theory in particular. During these years the focus in SLA shifted toward the learner, just as during the Renaissance when thinkers such as Erasmus and many artists, scientists, and writers led Western thought out of the Middle Ages by demanding a

focus on human beings. Cognitive psychology, with its focus on the human mind and such mental processes as memory and attention, along with sociolinguistics, with its focus on the relationship between language and society, came to power and paved the way for democratic processes in SLA: L2 acquisition came to be seen as a complex process, where in addition to innate principles of language, other factors such as attitude, motivation, aptitude, age, social structures and culture might well influence the process. Naturally, reading could not have remained immune to all these novel conceptualizations.

In the 1970s, having lived through the demotion to the position of an adjunct to speaking during the reign of audiolingualism, reading, once again, became an important aspect of L2 instruction. Finally in 1970 came the long-awaited theoretical framework, embodied in Goodman's top-down psycholinguistic perspective on second language reading (Samuels & Kamil, 1988). Goodman's model recognized the interaction of language and thought, viewed the process of reading in a social context that included both readers and writers, claimed to be universal, that is applicable to all stages of development and to reading in all languages, and consistent with both language comprehension and general comprehension. In short, the model was believed to be a panacea to all reading problems (Goodman, 1988).

However, Goodman's model suffered the fate of both the Contrastive Analysis Hypothesis (CAH) and the mentalist view on language transfer in SLA at large: just as both of them failed to account for *all* cases of language transfer in SLA, Goodman's model failed to account for *all* occurrences in the reading process. The model proved to work well for those with proficient or good reading behaviors, but not for those with poor reading or language proficiencies (Clarke, 1988; Eskey, 1988, Grabe, 1991). This deficiency was

typical of all the 1970s information processing models which tended to be linear and have a series of non-interactive processing stages independent of one another, with each stage passing its production to the next higher stage. Later, Rumelhart and Stanovich (Samuels & Kamil, 1988), and Grabe (1988) introduced (each in his own way) and elaborated (to a different degree) the notion of interactive models, models that "assume that skills at all levels are interactively available to process and interpret the text" (Grabe, 1988, p. 59). Thus, currently, the reading process is seen as a nonlinear, multi-dimensional interactive process that includes the reader, the writer, and the text in all their facets.

Inclusion of the reader in the process has brought with it another host of issues that may be responsible for causing "unidirectional biases in text processing" (Carrell, 1988, p. 103). These biases are closely linked to schema theory in the psycholinguistic model of reading. According to schema theory, comprehending a text is an interactive process between the reader's previously acquired knowledge structures (schemata) and the text. Schemata are hierarchically organized, from most general at the top to most specific at the bottom. The crucial claim of schema theory is that "much of the meaning understood from a text is really not actually in the text, per se, but in the reader, in the background or schemata knowledge of the reader" (Carrell & Eisterhold, 1988, p. 79).

There are three types of schemata: formal, content, and linguistic. Formal schemata is the background knowledge of conventionally organized patterns or structures of a text, content schemata is the background knowledge of the content area of a text, and linguistic schemata is the background knowledge of language. When readers fail to activate any of these schemata, there is a mismatch between the author's expectations of the reader's decoding abilities and the reader's actual decoding abilities (Carrel & Eisterhold, 1983).

Lack of text-decoding abilities is perhaps crucial in distinguishing a poor reader from a good one. Good readers are believed to be able to constantly shift their processing modes depending on the particular need they face while reading, whereas poor readers tend to over-rely on either of the modes. Thus, those who over-rely on bottom-up processing suffer from "text-boundedness," whereas those who over-rely on top-down processing suffer from "schema interference" (Carrell, 1988, p. 102). These unidirectional biases in text processing lead to a central question in L2 reading theory: Is second language reading a language problem (Linguistic Threshold Hypothesis [LTH]) or a reading problem (Linguistic Interdependence Hypothesis [LIH])? Depending on the answer to the question, we practically claim the primary importance of either linguistic (that is, language) competence in L2 or reading skills in L1. In other words, we either state that in order to read in a second language we have to achieve a certain level of second language ability (Clarke, 1979), or we argue that language skills such as reading and writing are transferable and interdependent: if one can read and write in L1, then the skills are available in L2 upon need (Goodman, 1988, Rigg, 1988). It should be noted that Alderson (Bernhardt & Kamil, 1995) was the first to formulate the question, to give a critical summary of research on the issue, and to reach a conclusion that both supported the Threshold Hypothesis and highlighted directions for further research.

As of today, reading experts have concluded that second language reading is a more complex phenomenon than the mere dichotomy of LIH versus LTH can encompass. Most likely, this phenomenon is a three-dimensional construct in which the third dimension probably entails details about context, for example, learner characteristics, educational variables, and other specific factors (Hedgcock, personal communication, 1999). In fact,

there have been many studies aimed at shedding at least some light on this complex issue. Perhaps a quick look at some of them will help outline the general trends in second language reading research with regard to second language reading and its relationships with the reader's L1 and /or L2 reading and general proficiencies, as well as help us understand what developments have made experts in reading come to as comprehensive an approach to the issue as the state of the art allows.

1.4. Overview of research developments

Rigg's study (1977/1988) is often cited as support for the universal psycholinguistic model of reading. In her article, Rigg reports on the results of the Miscue-ESL Project, a follow-up to Goodman's (1973) project which stated that "the reading process was the same for all subjects, regardless of race, age, and reading proficiency" (Rigg, 1988, p. 206). In Rigg's study the participants were four groups of ESL children with very diverse backgrounds in terms of race, age, and reading proficiency. They were to read two stories without assistance, and after finishing to retell the story to the researcher the way they understood it. Forty-eight readings and retellings (both) were tape-recorded, and analyzed using the Goodman Taxonomy. Rigg's findings indicated that even ESL students who did not have full mastery of English could read with comprehension, that their reading proficiency was not determined by their first language, and that some aspects of the reading process seemed to be universal.

Rigg's article is perhaps the last among those that explicitly claimed the universality of the reading process, even tentatively. Devine (1988) states that "even during the heyday of the psycholinguistic period of second language reading most researchers remained

sensitive to the role of language competence in second language reading success" (p. 261).

By the end of the 1970s, with a growing number of studies that failed to support the universality of the reading process for all languages, transfer of L1 reading strategies began to be questioned more forcefully. Some researchers started openly voicing their concerns about the deficiencies in Goodman's model with regard to its universality. Clarke was among the first to do that.

Clarke's (1978/1988) well-known and often cited study attempted to test the assumption that reading is a universal process, or that it is basically the same in all languages. Clarke's study entailed two investigations of reading behaviors of adults in two languages. At first, the Spanish and English cloze test performances of good and poor L1 readers (twenty-one low level native speakers of Spanish) were examined. Next, the oral reading performances of a good and a poor L1 reader (also native speakers of Spanish) were analyzed. Clarke identified the "good" and "poor" L1 readers through cloze tests in Spanish. The test responses were first identified as acceptable or unacceptable, and then the unacceptable ones were analyzed for syntactic and semantic acceptability. He concluded that the psycholinguistic perspective held true for proficient (or good) readers whereas with regard to poor readers the results could not be considered conclusive. Clarke was the first to introduce the notion of a foreign or second (L2) "language threshold" or "limited control over the language" which may "short circuit" transfer of L1 reading abilities to L2 (Taillefer, 1996, p. 461). In his implications for ESL reading teachers he recommended that they emphasize both the psycho (that is, universal reading strategies) and the linguistic (that is, language proficiency). Clarke noted that we could encounter a situation when two students with more or less equal L2 proficiency could exhibit similar reading behaviors for

different reasons, one student because he/she is a poor reader, that is, he/she does not have reading skills, the other because he/she failed to transfer reading skills from L1 to L2. From today's perspective there seems to be nothing special in what Clarke did. Actually it meant taking off the psycholinguistic eye-glasses which still enjoyed popularity.

Recognition of the importance of schemata in reading comprehension added to the dimensions of the issue. Hudson's study (1978/1988) is a good example in that sense¹. Hudson's study examined the role played by schemata in L2 reading by adult ESL students who are proficient readers in their native language. More specifically, he wanted to find out if readers would fail to understand a text because of lack of language proficiency. Could poor language proficiency "short circuit" the reading strategy skills that were to be transferable from their L1 or not? Hudson selected students proficient in their native languages. Participants, grouped in levels by the ESL program, were given selected passages for reading matched to their reading levels. They had schemata activation exercises before reading and a multiple choice reading comprehension test after it. Based on the results, Hudson claimed that good readers differ from poor readers both in their choices of reading strategies and in the ways they applied them. With regard to the language proficiency factor, he noted that it is only one of the determinants of effective comprehension and suggested what Bernhard and Kamil (1995) would suggest much later, that is consolidating the LTH and the LIH. Thus Hudson introduced the notion of "a combined linguistic and psycholinguistic ceiling" (Hudson, 1988, p. 185).

Bernhardt and Kamil (1995) attempted to reinterpret the relationships between L1

¹ As Hudson indicates in the 1988 publication of his study, it is somewhat revised compared to the original. It would have been quite interesting to read the deleted first page and a half of Hudson's original article: perhaps the deleted parts would have told a lot about the road traveled since then.

and L2 reading. As mentioned above, they suggested that the two hypotheses, LTH and LIH, be consolidated into one, because either hypothesis taken separately is insufficient to completely account for the reading process. Their summary of direct and indirect evidence available from previous research led them to conclude that both theories can be supported by findings from research on readers with homogeneous reading background. However, they also noticed that the range of the estimates of the contribution of L1 reading and L2 proficiency is too wide. Although they do not comment on the range width, this might be symptomatic of either inaccurate research designs or ungrounded conclusions with regard to the role of L1 reading proficiency in one's L2 proficiency. The other, very shrewd, observation made by these authors is about the instruments of measurements on which comparisons and conclusions are usually based. As they note, "...there can be little credibility in an argument that seeks the overlap in L1 and L2 language knowledge when learners are asked to perform tasks and language operations that are not equivalent" (p. 22). This study is a good example of recognition by the field of the scope of complexity involved in the L2 reading process.

Yet another study conducted by Carson, Carrell, Silberstein, Kroll, and Kuehn (1990) five years earlier seems to be very important in staking out the territory of the second language reading research territory. They tried to determine the reading/writing relationships of adult ESL learners across languages (L1 and L2) and across modalities (reading and writing) in L2 literacy acquisition. This study may give answers to some questions in other studies as well. They found that "... literacy skills can transfer across languages, but (that) the pattern of this transfer varies for the two language groups" (their subjects were Chinese and Japanese), and that "reading ability transfers more easily from

L1 to L2 than does writing ability, and that the relationship between reading and writing skills varies for the two language groups" (p. 245).

Undoubtedly, criticizing the past is easy. But if the past is viewed as a valuable source of lessons to be drawn upon for the future, thoughtful critique may be of exceptional positive impact. Larsen-Freeman (1991) in her review of SLA research suggests that developmentally, SLA has entered "young adulthood," since "matters of identity" have mainly been settled and the "responsibility" accompanying maturity has become of primary importance. Especially appealing is Freeman's hope that might be shared by many in the field: "What I hope researchers will be able to achieve is what teachers must also accomplish: preserving a detailed focus on the particular or individual, while simultaneously holding the whole" (p. 338). Current research seems to have overcome the maximalistic "yes or no" approach in supporting any theory and tends to express a more balanced view on the issue (Johnson, 1992).

1.5. Relevance to the research

Behind each of the two hypotheses mentioned above, namely, the Language Threshold Hypothesis (LTH) and the Linguistic Interdependence Hypothesis (LIH), there is a philosophy of teaching and learning. Bernhardt and Kamil (1995) state:

The universality of a 'cut-off' score for the TOEFL is a common manifestation of a (linguistic) threshold concept; so, too, are the ACTFL Proficiency Guidelines, based on the additive model of linguistic form and function. In like manner, the concept interdependence is at the forefront of a

substantial number of recommendations regarding second language programs. Immersion and content-based instruction have the philosophy of interdependence at their cores. (p. 16)

As we see nation-wide decisions are made based on the perception of these philosophies by educators and educational policy makers. At present when the Armenian educational system is experiencing a crucial period in that reforms are being undertaken, it is very important for Armenia's educational policy-makers to critically evaluate its educational traditions and make informed choices in designing and implementing reforms with regard to language education in particular and, if we are to believe in the significant impact of language on overall cognitive development of children (Lambert, 1984; Swain, 1984), with regard to education at large. This study may contribute to the process of making qualified decisions on language policies in Armenia. For one thing, in Armenia there has never been any previous research of the kind; besides, the research may trigger justified interest among Armenian educators and educational policymakers in issues of bilingualism in the current context of Armenia.

Nunan (1991) indicates the importance of the "environment and rationale" for methodological issues involved in any research. I will first address issues related to the environment and then say a few words about the rationale of the study. As the environment in this study has been "naturalistic" (Nunan, 1991, p. 253), it seems appropriate to describe "the world outside" (p. 253). So what are the specifics of our world outside?

Brown (1994) states that becoming bilingual is a way of life. This statement may seem too general, and, consequently, too simplistic. Or it may be seen as a very compact

metaphor. For bilingualism to occur, the importance of socio-political contexts can never be overstated. Genesee (1984) speaks of the importance of attitudes towards languages spoken in a society. He tells of a very interesting study conducted by Lambert in the 1960s. According to Genesee, it has become a classic study in the social psychology of language. In that study groups of English and French Canadians in Montreal listened to taped conversations of people speaking either in English or in French. Both, English-Canadians and French-Canadians felt much more favorable toward the English guises than toward the French. To many, this is a well-known situation in the former Soviet Union (SU): speaking fluent Russian was not only a sign of better education, but of a more prestigious image, as well.

Russian influence was pervasive for over 70 years when Armenia was one of the 15 republics of the Soviet Union. Although the Constitutions of all 15 republics, as well as the constitution of the SU, declared the national languages of the republics their official national languages respectively, Russian was the common interstate language of communication, the lingua franca, for all the republics. Additionally, Russian was the language of the republic of Russia, dominant in terms of both territory and population. Indeed, all 15 republics experienced the strong influence of the Russian language and culture. In the SU everything, not only the economy, was highly centralized. Naturally, the system of education was no exception. In all 15 republics there were Russian kindergartens, schools, colleges and universities. These educational institutions employed curricula developed and approved by the Russian Republic in Moscow. This officially created opportunities for people from all fifteen republics to continue their education in any of the republics, virtually all over the SU, because all republics had graduate and post-graduate educational institutions in which the

only medium of instruction was Russian, along with ones in their L1s. These factors determined the existence of a very specific bilingual context for all of the population of the SU.

Yet the Armenian situation, as well as that of nearly all former Soviet republics, (with the exception of Russia) was and is unlike other bilingual situations. If we compare Armenian bilingualism with the Canadian version, we will inevitably notice differences. Dolson (1984), when discussing well-known Canadian immersion programs (which came to life as a result of that particular bilingual context), states that (1) immersion is not and has never been a monolingual program, that L1 is incorporated into the programs as both a subject and a medium of instruction; (2) immersion programs are structured so that L2 may be acquired at no expense to general school achievement and L1 proficiency; (3) different (from monolingual) instructional strategies are used in immersion programs; (4) immersion programs were not imposed by the government, but were initiated by parents, assisted by educators and researchers; (5) immersion programs have not been implemented with language minority students; rather, the participants of immersion programs have been students who linguistically, socially, and economically enjoyed majority group status.

For Russian secondary schools in Soviet Armenia none of the points could be considered applicable. In practice, points 1 and 2, if applied to Russian schools, might make up two premises of the following syllogism: Russian schools were not monolingual programs because the native language, that is Armenian, was incorporated into the programs both as a subject and a medium of instruction (Armenian Language and Armenian Literature were two separate disciplines taught in Armenian), therefore Russian schools were not structured at the expense of L1 proficiency.

In my opinion, what turned the points into the premises of the syllogism was a combination of objective and subjective factors. The objective factor was the disparity in the cumulative number of hours of instruction in Armenian and Russian, and subjective factors were the professionalism of the administration of a given school and the commitment of the Armenian Language teacher. I suppose it is "beyond reasonable doubt" that general school achievement greatly depends on the professionalism of both the administration and the teachers of a given school. Russian schools in that sense were always better attended to because they were the carriers of a prestigious image at large.

Point 3 which specified instructional strategies of immersion programs as very different from monolingual programs could not be even attempted to apply to Russian schools in Armenia because instructional strategies, as well as textbooks and methods of instruction at large, were the product of a highly centralized and unified educational system.

Point 4 which specifies the origin of immersion programs, even if found to be true when applied to the origin of Russian schools all over Soviet Union, could not be trusted as such. There were too many cases of something imposed by the government presented to the world as something requested by the people of that government.

Only point 5, which specified the population of immersion programs as "linguistically, socially, and economically" enjoying the "majority group status," held relatively true: Armenians in the Republic of Armenia were not a minority group. Linguistically, socially, and economically, Armenians in Soviet Armenia did enjoy the majority group status. However, from the point of view of Russia, Armenians were a minority group. In fact, Russian secondary schools in Armenia employed curricula that were developed and approved by Russians for secondary schools in Russia. Yet as Russian

schools could not be characterized by the above mentioned specifics of immersion programs, as defined by Dolson, were they "submersion programs" ?

Dolson (1984) defines submersion programs "as a curriculum designed for native speakers of a language, but often used inappropriately with language minority students" (p. 5). Certainly, from the perspective of Russians, Armenians were a language minority. However, it was not so from the perspective of the whole republic where the population was ethnically basically homogeneous (over 90% , if not more, were Armenians, who had their national constitution, anthem, and official national language). In addition, Russian schools could not be classified under "sink or swim" learning environment. All students in Russian schools were Armenians, they did not have to compete with native speakers of Russian, and, consequently, Armenian students could not feel disadvantaged as compared to Russians. Nobody's sense of self-esteem suffered in terms of ethnic aspect. On the contrary, Armenians attending a Russian school experienced a strange sense of superiority nourished by an unconscious (or conscious) awareness of belonging to the elite of the society. Thus, it is difficult to define Russian school as classic instances of submersion programs. I believe they were neither immersion nor submersion programs, rather they were a specific mixture of both due to a very specific socio-political context.

As mentioned earlier, this specific socio-political context resulted in a very specific bilingual context. The majority of Armenians, if not all Armenians, just as perhaps all other peoples in the SU (with the exception of Russians, who didn't have to learn a second language), were functionally bilingual. It was only the degree of competence in L2 (that is Russian) that was different. This factor of "mandatory" (an imperative dictated by the "way of life") bilingualism made a significant part of Armenians virtually bilingual.

Lambert and Tucker (in Lambert, 1984) have proposed a guiding principle for bilingual situations which states that: "In any community where a widespread desire or need for a bilingual or multilingual citizenry exists, priority in early years of schooling should be given to the language (or languages) least likely to be developed otherwise, in other words, the languages most likely to be neglected." In Soviet Armenia this principle was really exercised in Russian schools. However, one should also take into account that, as stated earlier, Russian schooling was meant to generate the elite group in the society, so it could not allow for overproduction: the elite can never exceed the ordinary citizenry in numbers. Perhaps, this was why there had always existed legions of Armenian secondary schools, and, in the 1960s, when the need for a more sophisticated education arose, all kinds of special schools came into being: special language schools, special science schools, special art schools, and others.

Yet Armenians, particularly, representatives of radical ethnic movement, would periodically start discussions on the importance of Russian schools and, via the education provided by them, on the significance of the Russian Language and Literature in our society. My personal experience with my father who himself spoke poor Russian and thus wanted his children to have what he lacked (excellent Russian), comes to tell me that even such people kept teaching the value of one's expertise in his or her mother tongue, his or her expertise in the history, literature, and culture of his or her people. When in 1990, the Armenian government abolished Russian schools, that may have been the reaction to the action of that subtle imposition of the Russian language and culture that existed during Soviet times.

At present there are only Armenian secondary schools in Armenia. However,

abolishing schools which had existed for so long did not eradicate the impact of their existence overnight. In today's Armenia, the Soviet legacy with its call for reforms determines the specifics of our "world outside". These were the main environmental specifics which triggered my interest in the problem and, consequently, affected my understanding of the rationale of this study.

This research has many purposes. First of all, the research is expected to have "exploratory drilling" value: the obtained information will assist in making more informed and qualified decisions with regard to a follow-up experiment which will be designed to investigate more directly and as accurately as possible the relationships between the LTH and LIT in the Armenian context, in particular, at the American University of Armenia. Second, it is of practical interest to see if there might be implications that relate to issues of bilingualism. Whatever the implications, they may be of direct and/or indirect impact on the educational system of Armenia as reforms are expected to involve curricular changes, ensuing changes in methodologies, and teacher training. In addition, the outcome of this research may help examine the impact of bilingualism on foreign language acquisition in Armenia.

The research question is the following:

Is there any relationship between the English reading proficiency of the students in the Intensive English Program (IEP) at the American University of Armenia (AUA) as measured by their TOEFL reading comprehension scores and their L1 and L2 (Armenian and/or Russian) overall proficiency as measured by their final marks in Armenian and Russian in the secondary school?

The null hypothesis states that there will be no statistically significant difference

between participants' English reading proficiency and their L1 and L2 (Armenian and/or Russian) overall proficiency.

$$(H_0 : X_1 = X_2)$$

The alternative two-tailed hypothesis (because there has been no previous research) states that there will be a statistically significant difference between participants' English reading proficiency and their L1 and L2 (Armenian and/or Russian) overall proficiency.

$$(H_1 : X_1 \neq X_2)$$

CHAPTER 2: METHODOLOGY

2.1. Sample Selection

Sample selection and purpose(s) of a study are the factors which, while strongly interdependent, bear upon the results of a research in terms of their generalizability. Whether a researcher uses random sampling or a convenience sample will inevitably affect the issue. Therefore it is important that the researcher be aware of the consequences of the choice made regarding sample selection. As mentioned earlier, this research is meant to identify possible trends, if any at all, and to serve as a pilot study for follow-up research. For such purposes the convenience sample is fully acceptable (Johnson, 1992). What are the specific characteristics of the sample population in this study?

2.2. Participants

The participants of this research were 88 students enrolled in the Intensive English Program (IEP) at the American University of Armenia (AUA) in 1998. The applicants to the IEP of AUA were selected on the basis of their Test of English as a Foreign Language (TOEFL) results. The suggested cutoff point was 475 of the institutional TOEFL, but because of tape-quality problems the cutoff point was adjusted to 450. Applicants with scores of 550 and above were eligible for exemption from the IEP. Thus, all participants in this research had a TOEFL score somewhere between 450 and 550 (Appendix A). In terms of ethnic and educational background, the participants of the research were homogeneous. All of them were Armenians with higher education diplomas, that is, as a minimum, with undergraduate degrees from an institution of higher education, such as Yerevan State

University, the National Institute of Economy, or others. In terms of residence, secondary school types (Armenian, Russian, and Special²), year of finishing school, and private classes in English, participants of this research were not quite homogeneous. Most of the participants were from Yerevan, the capital of Armenia, and attended Russian secondary schools; many took private classes in English to succeed on the TOEFL. The descriptive statistics characterizing the sample population of this study are set out in Appendix B. In terms of final school marks in Armenian and Russian, the prevailing majority of the participants had good to excellent results (Appendix A).

2.3. Materials

This study relied on an ex post facto design, as there was no actual treatment and, consequently, no treatment materials. Two types of data were used in this study: quantitative and qualitative. The first type of data was quantitative and was represented through the TOEFL reading scores of the 1998 AUA applicants and their final marks in Armenian and Russian in the secondary school. The second type of data was qualitative and was represented through responses to a survey questionnaire used to solicit background information about the sample population in terms of their previous exposure to English and reading practices.

The first set of quantitative data represented through the TOEFL scores of the applicants (Appendix A) provided a measure of their reading proficiency in English as of the date of the institutional TOEFL. TOEFL is usually used to check the level of the English

²Special schools are the ones with English incorporated into the program both as a subject and a medium of instruction)

Language proficiency of the vast majority of international students entering American universities today. TOEFL is a discrete-point psychometric test that as Davidson and Bachman (1990) write "is a multi-item assessment of highly discrete language tasks" (p. 26). As such, TOEFL shares inherent deficiencies of large-scale standardized tests assessing discrete language tasks. However, TOEFL is one of those rare psychometric tests whose validity and reliability are constantly scrutinized and publicized by its developers. The reliability reported in the Manual for Supervisors (1998) as of July 1996 is .95 for the Total Score and .88 for the Reading Section of the test. Thus, I could assume it was more than acceptable for the purposes of my "trends probing" research.

The second set of the quantitative data represented through the applicants' final marks in Armenian and Russian Languages and Literature in the secondary school (Appendix A) provided a measure of their language proficiency in Armenian and Russian. As mentioned earlier, the participants of this study represented three types of secondary schools, Armenian, Russian, and Special.

The reliability and validity of secondary school marks was an issue of great concern for me. All schools in the former Soviet Union used a common five-score interval band for the evaluation of students' progress in all subjects, with "5" being the highest mark and "1" the lowest. However, I was fully aware of the fact that the common five-score interval band did not assume common requirements for assessment: "5"s across the board might not mean the same thing. For example, a "5" in Armenian Language in an Armenian school might be very different from a "5" in Armenian Language in a Russian school. The same was true for all other marks. This variability can be accounted for by both objective and subjective reasons.

The primary objective reason, in my opinion, was that Armenian and Russian Language and Literature curricula differed significantly: in Armenian schools the scope and the depth of instruction of Armenian Language and Literature was greater than in Russian schools. The same was true with regard to Russian, only vice versa: Russian schools offered wider and deeper knowledge in the Russian Language and Literature than Armenian schools. The curricular differences were obviously seen in relevant textbooks and could not but result in different requirements when marking. In other words, a "5" (just as any other mark) in any of the languages (Russian or Armenian) in Armenian schools was essentially different from a "5" in the same language in Russian schools because curricular and textbook differences led a student to master the language and literature to a different extent in different types of schools. (I knew that from my personal experience as a Russian school student, too.)

The second factor, the interteacher reliability, was, in my opinion, partly objective and partly subjective. The objective aspect was in that there did not exist descriptors for assessing students' oral answers either at large or specifically for each subject. (I knew it from my own experience as a secondary school teacher yet I checked it with the Municipal Board of Education, as well.³) There did exist some guidelines for assessing written work, for example, dictations with one spelling mistake were to be marked "4", with two spelling mistakes – "3". Or two punctuation mistakes were to be treated as one spelling mistake and thus be marked the same way as the work with one spelling mistake, and so on. However, as mentioned above, there did not exist even these kind of guidelines for assessing oral

³ Hopefully, the issue of developing scoring descriptors is under consideration, and most likely, very soon Armenian teachers will have them as the head of the Municipal Board of Education told me in a private conversation.

answers: assessing oral answers was left to teachers' discretion. Perhaps, it was assumed that teachers should follow similar guidelines for assessing oral answers, too.

The subjective aspect of assessment for oral answers, in fact, was closely related to the objective aspect, that is lack of descriptors: the problem was that by leaving oral assessment to the teacher's discretion, every teacher's individual perception of the goal and purposes of assessment and ways of achieving them would be of paramount importance. Very often what one teacher would consider important, another would consider unimportant. Such categories as effort, participation, or even attendance would affect one teacher's grading while having little impact on another's assessment. As there were no scoring descriptors for assessing oral answers, nobody, at least officially, cared about that aspect of marking. Different teachers used to have different reputations: "tough grader" or "lenient grader" labels were far too well-known to me: it was basically every teacher's commonsense, experience, and/or teaching philosophy that guided him or her in deciding the mark of a student⁴.

The third reason, the teacher-student relationship factor, was, in my opinion, merely subjective. For example, two students with more or less equal L2 proficiency could have different marks, for example, "3" and "4", or even "3" and "5", because the teacher might be tougher with a student who once provoked the teacher's anger through a disrespectful attitude. As a result, the teacher (consciously or unconsciously) might find fault with the trouble-maker, just to punish him. And if the other student not only did not insult the teacher, but even somehow flattered the teacher's ego, the effect could be either a "4", or

⁴ I do not claim that the existence of guidelines guarantees absolute objectivity in assessment; however, lack of guidelines may increase the subjectivity of judgements.

even, as a reward for loyalty, a "5."

This objectively "imposed" subjective nature of the secondary school marks might have strongly affected the reliability and validity of the school marks in the study if not for the fact that final school marks were mostly based on the results of written works, particularly, marks for Language, and, as mentioned above, there did exist some guidelines for assessing written work. In addition, marks for Literature were also partly based on the results of written work because, when in school, students, along with oral answers, were graded for written compositions (essays) on topics related to either the authors' writing skills or the content of the piece of literature on the syllabus. The topic of the essay could be something like: How does the author account for the main character's decision to do (or not to do) something? Or: How would you interpret that same decision? Or: How would you act if you were in the shoes of the main character?

There were no statistical figures (in fact, such figures could not exist) demonstrating the reliability or validity of school marks. However, despite the above-mentioned caveats, based on my personal experience both as a student and as a teacher and taking into consideration the purpose of the study, I found using school marks acceptable. I reasoned that if there proved to be some relationship (no matter what kind), there would be even more sense in a follow-up experiment. If there proved to be no relationship, that would make a follow-up study a must: How else would I make sure that the reasons for the negative outcome were not rooted either in the subjective nature of the school marks or, even worse, in the different instruments of measurement (Bernhardt & Kamil, 1995)?

The second type of data was qualitative, elicited through answers to a questionnaire. The questionnaire design used in Hedgcock and Atkinson's (1993) research (Appendix C-1)

was of particular interest and help to me since it served as a model for my own survey questionnaire (Appendices C-2 & C-3). Nunan (1991) states that "Constructing questionnaires that unambiguously elicit accurate responses is difficult, and questionnaires designed to obtain information about language learning have additional complication of sometimes being mediated through the learner's first language" (p. 257).

To exclude the effect of learners' first language mediation, I designed the questionnaire in Armenian, the L1 for the participants by birth. It was administered in person. It comprised nine questions on the participants' educational background and their exposure to English in terms of amount and type. Although the questionnaire items used in this study were basically closed, there were also some open-ended questions. After piloting the questionnaire with 10 former students of the IEP, I significantly modified the initial version of it based on their feedback. Both the initial and final versions of the questionnaire, as well as the translation of the final version into English, are attached (Appendices C-2, C-3, and C-4). Items aimed at soliciting information on the reading habits of the participants were substantially simplified. New items, such as the first two questions and the last one were introduced. In general, comments made by Johnson (1992) and Nunan (1991), as well as the feedback of the students with regard to this instrument, served me as guidelines for action.

However, it should be noted that I used the data generated through the answers to the questionnaire very selectively. Despite the fact that it was modeled after a used instrument and piloted with respondents similar to the participants of the study, despite reshaping certain questions based on their feedback, despite oral explanations as to how fill it out, I still had doubts about the reliability and validity of the instrument.

In fact, responses to certain questions, namely ## 1, 2, 7(1), 7(2), 7(3) showed that

some participants of this study failed to respond in a way that would make me feel certain that they understood the questions or responded to them honestly without being affected by factors such as a false sense of self-esteem (Appendix C- 4). For example, item #1 asked when and where they learned English whereas item #2 asked for how long (all together) they had been learning English. Some of the respondents even failed to give such answers to these two questions that would match each other. In fact, there were respondents who said they had been learning English for 9, 10, or even 14 years, whereas in their answers to question #1 they said they had learned English only in the secondary school which makes only 5 years of instruction. If they meant private instruction outside school, they were to have circled that option too under question #1, which they failed to do.

In addition, quite a few of those attending Armenian or Russian schools responded in the affirmative to item # 6, which asked if they read in English in junior school. Moreover, they said they had read newspapers in English more than textbooks or other kinds of texts. This was (and perhaps still is) virtually impossible for an average Armenian or Russian school graduate, unless he/she took private classes in English: at that time ordinary secondary schools (not the Special ones) started foreign languages (with the exception of Russian) in the fourth year, and with the two hours of English per week, with the textbooks then used, they could hardly have reached the level of proficiency required to read newspapers in English. Furthermore, it was quite a problem to get newspapers in English at that time. Perhaps, as I suspected, responding to surveys without prejudice is not part of our culture yet, or perhaps the reshaped items should have been piloted again before administering the questionnaire (Johnson, 1992). I must admit that out of 86 respondents, 38 gave unreliable (in one way or another) answers. Besides, four respondents did not answer

all the items on the questionnaire.

Thus, only some factual information solicited through the questionnaire was considered in the study, namely, information about the school they finished, when they finished it, where, and if they took any private classes in English. The rest, although tabulated and processed, I ignored.

2.4. Procedures

To conduct the investigation. I employed the following procedures. First, I requested official permission from the administration of AUA for access to the TOEFL scores of the 1998 applicants as well as for the right to use the data in this research. Second, I compared that list with the list of students attending the IEP classes in mid-September in order to exclude the dropouts. Third, I asked the IEP instructors to assist me in obtaining the information about their students as to what secondary school they attended, when, and where. Next I submitted the list with that information to the Ministry of Science and Education of Armenia with an official request for the participants' final marks in Armenian and Russian Languages and Literature in the secondary school.

Meanwhile, I also designed the questionnaire to survey the background information about the students' previous exposure to English and their reading habits. As mentioned earlier, I first piloted the questionnaire with ten former students of the IEP. Their feedback was of particular value for the overall formatting and wording of the items. In fact, their feedback caused substantial reformatting of the questionnaire. With permission of the IEP administration, the instructors administered the questionnaire during or after their classes. Naturally, the instructors gave all the necessary explanations as to how to fill out the survey.

Next I arranged the obtained data so as to create variables in accordance with the intended design (ex post facto) of the study which employed, as the appropriate form of statistical analysis, a two way, non-balanced, fixed effect ANOVA to investigate the possible relationships between the mean gain scores of students in their L1 and L2 proficiencies on three levels and their English reading proficiency. The appropriateness of this statistical family was determined by the necessity to compare more than two means simultaneously.

Two important notes should be made here: first, the unequal number of observations (I had many fewer participants from Special Schools than from Armenian or Russian) determined my choice of General Linear Models (GLM) for the analysis of the possible relationship between the variables. Second, if types of schools were a variable in a future study, Special schools might be a factor. For after 1990, when the Armenian government abolished Russian schools, all schools, other than Armenian ones, with whatever language serving both as a subject and a medium of instruction, even a Russian one for that matter, would be considered a special school. However, the number of participants from Special schools, perhaps, should be one of the main concerns for the researcher who would decide to do research with the school type as one of the independent variables. Thus, although I realized the restrictions coming with the choices I made (in terms of generalizability), my choices seemed acceptable to me.

Thus, the dependent variable of this study was the IEP students' reading proficiency in English as measured by their TOEFL reading scores, and the two independent variables with three levels each were the type of school or School Group (SG A, R, and S) and L1 and/or L2 proficiency level or Armenian and Russian Proficiency (ARLP 1, 2, 3).

Let me define more specifically what each independent variable denoted. The first independent variable was nominal and classified the data according to the type of school. The three levels of the School Group (SG) variable were: A (Armenian school), R (Russian school), and S (Special school). The following were the specifics for each type of school:

Type "A" denoted Armenian schools where Armenian was incorporated into the program as both a subject and the medium of instruction for all other subjects with the exception of Russian and another foreign language (English, French, or other).

Type "R" denoted Russian schools where Russian was incorporated into the program as both a subject and the medium of instruction for all other subjects with the exception of Armenian and another foreign language (English, French, or other).

Type "S" denoted Special schools where Armenian and English were incorporated into the program as both subjects and mediums of instruction: Armenian for all subjects taught in type "A" schools using the same curricula and English for teaching the English Language and Literature, Geography, History, Translation, and typing in English, and of course, Russian was taught in these schools just as in any other Armenian school.

Participants of the study were assigned to groups in accordance with the type of school they represented.

The second independent variable, Armenian and Russian Language Proficiency (ARLP) with its three levels was the participants' L1 and/or L2 proficiency as measured by their final marks in these two languages in the secondary school. The marks were arranged in accordance with the levels of proficiency in the following manner:

First, the descriptive tables of "who – what mark" in each language in the three types of school was created (Appendix A). Looking through this raw data I saw that there were

only a few students with “3”s in both Languages and both Literatures. It became clear that my initial idea of comparing only “3”s with only “5”s would not be sound research, I had to think of some other way of grouping the students. Considering my options, I understood that if I decided to contrast only “4”s with only “5”s, I would reduce the number of participants, and I did not want to do that because I was aware of the importance of the sample size. I decided to assign my participants to three groups with 0.5 difference in the gain mean. I joined those with the gain mean (marks of both Languages and Literatures were processed) lower or equal to “4” in one group, those with the mean higher than “4” and up to “4.5” in the second group, and those with the mean higher than “4.5” and up to “5” in the third group. So, the ARLP variable with its three levels reflected the following grouping of the marks:

Table 1 Marks in the Three Levels of the ARLP Variable

Armenian Lang. & Lit.			
Russian	3	4	5
Lang. &	4	4	5
Lit.	5	4	5

Thus, ARLP Level 1 included students with the mean gain score of $3 > 4$ in both Languages and Literatures, Armenian and Russian.

ARLP Level 2 included students with the mean gain score of higher than 4 up to 4.5 in both Languages and Literatures, Armenian and Russian.

ARLP Level 3 included students with the mean gain score of higher than 4,5 up to 5

in both Languages and Literatures, Armenian and Russian.

The data were processed by employing the SAS for Windows, version 6.12 (1996).

CHAPTER 3: DATA ANALYSIS AND RESULTS

3.1. Types of Analyses Employed in the Research

Having created my independent variables, I was ready to proceed with the analysis itself. First, to get the statistical description of my variables I employed the Univariate Procedure to analyze the variables in terms of defining their mean, mode, median, standard deviation, and range. This was necessary to see if my variables met the assumptions which would allow me to proceed with the further analysis to investigate the existence of any statistically significant relationship between the variables. Second, I employed General Linear Models Procedure, the multivariate or multifactor analysis, to see the effect of the independent variables on the dependent excluding the effect of confounding variables.

3.2. Univariate Procedure: Statistical Description of the Variables

Table 2 . Description of the variables of the study.

	Mean	Median	Mode	Range	Standard Deviation	Variance
TOEFL Reading (TR)	50.12	50	51	21	4.17	17.42
TR for SG A	49.64	50	51	17	4.37	19.12
TR for SG R	50.44	50	49	21	4.32	18.74
TR for SG S	49.9	50	50	10	2.76	7.65
ARLP 1	49.43	49	47	18	4.34	18.87
ARLP 2	48.41	49	49	17	5.21	27.17
ARLP 3	51.02	51	51	16	3.59	12.95

Note. SG A denotes Armenian schools, SG R – Russian schools, and SG S – Special schools. ARLP 1 denotes the mean gain score of ≤ 4 in both Languages and Literatures, Armenian and Russian, ARLP 2 - the mean gain score of higher than 4 up to 4.5 in both Languages and Literatures, Armenian and Russian, and ARLP 3 - the mean gain score of higher than 4,5 up to 5 in both Languages and Literatures, Armenian and Russian.

As mentioned above I needed the statistical description of the variables to see if they allowed me to use the two-way, unbalanced, fixed effect ANOVA. Theoretically, the assumptions to be met when using ANOVA include:

There is one dependent variable (in my study, the students' reading proficiency in English as measured by the participants scores in TOEFL, reading section); two independent

variables with three or more levels each (in my study, the three types of school and L1 and/or L2 three levels of proficiency respectively).

The data are continuous, so that the mean and variance are the best measures of central tendency and variability for the data (in our study, both the TOEFL scores and school marks are continuous).

The data are independent (in our study, each subject is only in one group and each subject's mean gain score is used only once).

There is a normal distribution of scores in each group (Appendix D shows the normality of distribution for the scores used in the research)

There are equal variances of the scores in each group.

Thus, having checked my variables as to whether they met the assumptions I could proceed with General Linear Models Procedure, the multivariate or multifactor analysis, to see the effect of the independent variables on the dependent excluding the effect of confounding variables.

3.3. Results of the GLM Procedures: First Analysis

Table 3 Results of the First Analysis.

Source	DF	Sum of Squares	F Value	Pr > F
Model	2	66.44508033	1.95	0.1488
Error	85	1449.17991967		
Corrected Total	87	1515.62500000		
	R-Square	C.V.	TR Mean	
	0.043840	8.237536	50.125000	
Source	DF	Type I SS	F Value	Pr > F
SG	1	3.68791391	0.22	0.6431
ARLP	1	62.75716643	3.68	0.0584
Source	DF	Type III SS	F Value	Pr > F
SG	1	13.85304053	0.81	0.3699
ARLP	1	62.75716643	3.68	0.0584
	T for H0:	Pr > T	Std Error of Estimate	
Parameter	Estimate	Parameter=0		
INTERCEPT	47.82523774	29.71	0.0001	1.60957571
SG	0.65351432	0.90	0.3699	0.72499373
MARL	0.95311362	1.92	0.0584	0.49678068

Note. Number of observations in data set (N) = 88; Dependent Variable: TR (TOEFL Reading)

As is seen from Table 3, I had to accept the null hypothesis. Comparing the probability of the F-value to the alpha level of 0.05 set in this study, $F= 1.95, p> 0.14$, I could see that the probability level obtained was larger than the set alpha. Likewise, the probability of the F-value for each of the variables, either school group (SG) or proficiency in Armenian and Russian (ARLP), was also larger than the set alpha, 0.64/0.36 and 0.058 respectively. Thus, the results of the two-way ANOVA with independent measures revealed no statistically significant difference between the participants' English reading proficiency and their L1 and L2 (Armenian and/or Russian) overall proficiency.

3.4. Reconsidering Data Arrangement

While trying to interpret the obtained results I came to realize that besides the objective reasons that could have affected the analysis⁵ there might have been subjective reasons for such an outcome, too. In fact, the results of the analysis seemed illogical to me: they disagreed with my teaching experience. As the raw data could not be altered by me, I started questioning the rationale of arranging the data and creating the variables. I came to the conclusion that the subjective reasons for such an outcome could be rooted in the following: I may have artificially leveled the differences when creating the ARLP variable because 0.5 difference in knowledge may have been insufficient to reveal any potential relationship between the participants' TOEFL Reading scores and their knowledge of L1 and L2. Besides, the minimal number of students in the third school group may have had its effect on the results. So I decided to try another variant, that is to say to arrange my data differently and create new variables with two school groups and two language levels

⁵ I will discuss the objective reasons for the obtained results in detail in the Discussions section of the study

arranged in the following manner: I kept the school group variable almost as it was: SG A and SG R representing the same type of school they had represented before. I just discarded the Special school group, that is SG S. But I arranged the data for the ARLP levels differently.

Table 4 Marks in the Two Levels of the ARLP Variable.

Armenian Lang. & Lit.			
Russian	3	4	5
Lang. &	4	4	5
Lit.	5	4	5

As we can see from Table 4, ARLP' Level 1 included students with the mean score of ≤ 4 up to 5 in both Languages and Literatures, Armenian and Russian.

ARLP' Level 2 included students with the mean score of only 5s in both Languages and Literatures, Armenian and Russian.

In other words, I tried to be as close to the initial plan of opposing strong students to the weak ones as I could.

3.5. Results of the GLM procedures: Second Analysis

Table 5 Results of the Second Analysis.

Source	DF	Sum of Squares	F Value	Pr > F
Model	2	119.08653179	3.37	0.0399
Error	75	1327.06731437		
Corrected Total	77	1446.15384615		
	R-Square	C.V.	TR Mean	
	0.082347	8.387096	50.1538462	
Source	DF	Type I SS	F Value	Pr > F
SG	1	11.40527473	0.64	0.4246
ARLP'	1	107.68125706	6.09	0.0159
Source	DF	Type III SS	F Value	Pr > F
SG	1	30.07554278	1.70	0.1963
ARLP'	1	107.68125706	6.09	0.0159
		T for H0	Pr > T	Std Error of
Parameter	Estimate	Parameter=0	Estimate	
INTERCEPT	46.68285913	24.43	0.0001	1.91057934
SG	1.32408050	1.30	0.1963	1.01560188
ARLP'	1.20541291	2.47	0.0159	0.48863168

Note. Number of observations in data set (N) = 78 (the number of observations is reduced from 88 to 78 because 10 participants representing the Special school group were discarded).

Dependent Variable: TOEFL Reading (TR)

Comparing now the probability of the F-value to the alpha level (0.05) set in the study, I could see that the probability level obtained was smaller than the set alpha, $F= 3.37$, $p > 0.0399$. Thus I could reject the null hypothesis and accept the alternative hypothesis that stated that there was a statistically significant difference between participants' English reading proficiency and their L1 and L2 (Armenian and/or Russian) overall proficiency. However, I could not claim that for both of the predictor variables: on the level of the effect of each variable taken separately, I could see that there was a statistically significant difference only with regard to the ARLP' variable, $p > 0.0159$. This meant that the level of Armenian and Russian knowledge did have effect on the TOEFL Reading scores, whereas with regard to the SG variable, the results of the analysis showed that the school group factor did not have any effect on the TOEFL reading scores, $p > 0.1963$.

When dealing with the results of multivariate or multifactor analysis that allow to reject the null hypothesis, it is also important to see if there is any interaction between the predictor variables (Hatch & Lazarson, 1991). The results of the check for the interaction are as follows:

Table 6 Results of the Analysis to Check for the Interaction Effect.

Source	DF	Sum of Squares	F Value	Pr > F
Model	3	125.04137900	2.33	0.0808
Error	74	1321.11246716		
Corrected Total	77	1446.15384615		
	R-Square	C.V.	TR Mean	
	0.086465	8.424610	50.1538462	
Source	DF	Type I SS	F Value	Pr > F
SG	1	11.40527473	0.64	0.4267
ARLP'	1	107.68125706	6.03	0.0164
INT	1	5.95484721	0.33	0.5653
Source	DF	Type III SS	F Value	Pr > F
SG	1	2.37037037	0.13	0.7166
ARLP'	1	0.21354242	0.01	0.9132
INT	1	5.95484721	0.33	0.5653
Parameter	Estimate	T for H0	Pr > T	Std Error of Estimate
INTERCEPT	47.96296296	16.36	0.0001	2.93186406
SG	0.59259259	0.36	0.7166	1.62630557
ARLP'	0.19815239	0.11	0.9132	1.81180420
INT	0.60301720	0.58	0.5653	1.04411522

Note. Dependent Variable: TOEFL Reading – TR, INT - Interaction effect

As is seen from Table 6, there is no interaction: the probability of the F-value is significantly larger than the alpha level of the study, $F = 0.33, p > 0.5653$. Hatch and Lazarton (1991) point out how important it is to consider the interaction effect, if there is any, for valid and professional interpretation of the results in factorial designs. In fact, while the absence of interaction is often more desirable than its presence because it complicates the interpretation by the necessity to account for the interplay of different factors, the absence of the interaction effect allows the researcher to make stronger claims regarding the main effect(s) of predictor variables. This means that the absence of interaction in this research allows me to state that the main effect of one the variables, namely, knowledge of Armenian and Russian is not washed out by the interaction effect of the second variable (that is, School Group).

Thus, I can conclude that while the results of the first analysis do not allow me to reject the null hypothesis, the results of the second analysis do. The interpretation of these seemingly controversial findings seems to be crucial in understanding the value of this research, as well as the design and implementation of a follow-up research, for, obviously, these results raise more questions than provide answers.

CHAPTER 4: DISCUSSIONS AND CONCLUSIONS

4.1. Key Issues to consider

Both my teaching experience and my analysis of direct and indirect evidence from previous research led me to believe that the results of this study should show some evidence for the relationship that would somehow support both hypotheses, that of LIH and that of LTH. I expected to obtain statistics the interpretation of which would entail the recognition of the universality of reading skills for proficient in their L1 learners (that is to say, would support Goodman's model of reading comprehension), as well as the recognition of the language threshold (or ceiling) for others (that is to say, would support Clarke's notion of language threshold). However, I did not initially plan two analyses. Moreover, I did not even suspect that, in the final account, I might get results that would come to prove my expectations even stronger than I had assumed. To support this claim, I would rather rehearse the findings.

So, there appeared to be relationship between the knowledge of the participants in Armenian and Russian as measured by their school marks and their TOEFL reading scores only when proficient or competent in L1 and L2 participants were compared to the weak in their L1 and L2 students, namely, when only "5"s in both Armenian and Russian languages and Literatures were contrasted with "4"s and "3"s.

As classes in both Armenian and Russian languages and Literatures assume extensive reading in both languages, I can suggest considering those with only "5"s in both Languages and Literatures proficient readers in Armenian and Russian. Consequently, I can

assume that there could occur some transfer of reading skills from L1 and /or L2 to help the reading process in English, their L3. As the participants of this research enjoy the privilege of being practically bilingual, it may mean certain flexibility in transferring reading skills.

In addition, the absence of any relationship between the two variables in the first analysis when students were grouped with 0.5 difference in the knowledge of Armenian and Russian seems to suggest that, given the sample size, the 0.5 increase in Armenian and Russian (L1 and/or L2) proficiency might be insufficient to reveal the increase in L2 (English) reading ability, even if that difference really existed as the results of the second analysis showed. Perhaps, the outcome of the first analysis supports the appropriateness of the question formulated by Bernhard and Kamil (1995): "How L1 literate does a second language reader have to be to make the second language knowledge work?" As we see, the issue is not in the transfer of the skill as such, it is in the level of literacy.

It is also worth attention that out of all proficient in their L1 and L2 participants of the study ("5"s in both Armenian and Russian Languages and Literatures) only two scored as high in reading English as 59. Yet 59 is not the possible maximum score for the reading section of the TOEFL. This fact is interesting because we have to think of some ways to account for not scoring the maximum in English while having the maximum scores (marks) in Armenian and Russian Languages and Literatures: Can this be attributed to the absence of adequate level of knowledge in their L3, that is to say to the fact that the necessary "language ceiling/ threshold" in their English has not been reached by these proficient in their L1 and/or L2 participants, which may have hindered the transfer of the reading skills they have in their L1 and/or L2?

To draw any conclusions regarding the results of the study, let us first consider

potential threats to internal and external validity of this research.

4.2. Potential threats to internal validity of the research

In my opinion, most important potential threats to internal validity of the research are the following:

- instrument of measurement,
- learner characteristics.

Instrument of measurement. I believe that most serious research has to be aware of this basic factor underlying any comparison. As I quoted earlier, Berhnhardt and Kamil (1995) formulated this warning very precisely. Really, there seems little credibility in comparing apples to pears (different kinds of fruits), let alone comparing apples to cucumbers (fruits and vegetables). The tasks on which comparisons are based have to be equivalent, if not the same; there can be no denial of this argument. As I have already explained, the reliability and validity of the secondary school marks is an issue in itself. And though I have already argued the reasons for which this comparison seemed acceptable to me for the given study, looking into the raw data of school marks seems to have added to my concerns. Let us consider the following information.

Table 7 Armenian Language Proficiency (ALP) by School Group (SG).

ALP (ALP)	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
3	2	0	1	3
	2.27	0.00	1.14	3.41
	66.67	0.00	33.33	
	7.14	0.00	10.00	
4	8	25	5	38
	9.09	28.41	5.68	43.18
	21.05	65.79	13.16	
	28.57	50.00	50.00	
5	18	25	4	47
	20.45	28.41	4.55	53.41
	38.30	53.19	8.51	
	64.29	50.00	40.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Table 8 Armenian Literature Proficiency (ALTP) by School Group (SG).

ALTP (ALTP)	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
3	1	1	1	3
	1.14	1.14	1.14	3.41
	33.33	33.33	33.33	
	3.57	2.00	10.00	
4	4	16	4	24
	4.55	18.18	4.55	27.27
	16.67	66.67	16.67	
	14.29	32.00	40.00	
5	23	33	5	61
	26.14	37.50	5.68	69.32
	37.70	54.10	8.20	
	82.14	66.00	50.00	
Total	28	50	1088	
	31.82	56.82	11.36	100.00

Note. SG A denotes Armenian schools, SG R- Russian schools, and SG S- Special Schools. 3, 4, 5 – are the secondary school marks.

Table 9 Russian Language Proficiency (RLP) by School Group (SG).

RLP (RLP)	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
3	1	4	0	5
	1.14	4.55	0.00	5.68
	20.00	80.00	0.00	
	3.57	8.00	0.00	
4	10	31	6	47
	11.36	35.23	6.82	53.41
	21.28	65.96	12.77	
	35.71	62.00	60.00	
5	17	15	4	36
	19.32	17.05	4.55	40.91
	47.22	41.67	11.11	
	60.71	30.00	40.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Table 10 Russian Literature Proficiency (RLTP) by School Group (SG).

RLTP (RLTP)	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
3	2	2	1	5
	2.27	2.27	1.14	5.68
	40.00	40.00	20.00	
	7.14	4.00	10.00	
4	8	19	2	29
	9.09	21.59	2.27	32.95
	27.59	65.52	6.90	
	28.57	38.00	20.00	
5	18	29	7	54
	20.45	32.95	7.95	61.36
	33.33	53.70	12.96	
	64.29	58.00	70.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Table 11 Mean Armenian Language Proficiency (MALP) by School Group (SG).

MALP	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
0	4	16	5	25
	4.55	18.18	5.68	28.41
	16.00	64.00	20.00	
	14.29	32.00	50.00	
1	7	10	1	18
	7.95	11.36	1.14	20.45
	38.89	55.56	5.56	
	25.00	20.00	10.00	
2	17	24	4	45
	19.32	27.27	4.55	51.14
	37.78	53.33	8.89	
	60.71	48.00	40.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Table 12 Mean Russian Language Proficiency (MRLP) by School Group (SG).

MRLP	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
0	8	21	3	32
	9.09	23.86	3.41	36.36
	25.00	65.63	9.38	
	28.57	42.00	30.00	
1	5	15	3	23
	5.68	17.05	3.41	26.14
	21.74	65.22	13.04	
	17.86	30.00	30.00	
2	15	14	4	33
	17.05	15.91	4.55	37.50
	45.45	42.42	12.12	
	53.57	28.00	40.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Table 13 Arm. and Rus. Language Proficiency (ARLP) by School Group (SG).

ARLP	SG (SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
0	5	20	5	30
	5.68	22.73	5.68	34.09
	16.67	66.67	16.67	
	17.86	40.00	50.00	
1	4	7	1	12
	4.55	7.95	1.14	13.64
	33.33	58.33	8.33	
	14.29	14.00	10.00	
2	19	23	4	46
	21.59	26.14	4.55	52.27
	41.30	50.00	8.70	
	67.86	46.00	40.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

As we can see, there are more participants from Russian schools than from Armenian and/or Special ones (50: 28: 10), and a higher percentage of those with high marks in Armenian and Russian languages is from Armenian schools. Out of eighty-eight participants of the study, 67. % of those with high marks in ARLP are from Armenian schools, as opposed to 46% of their counterparts from Russian schools. Furthermore, if we look into figures closely, we will see that, on the whole, 60. % of all participants from Armenian schools have high marks in Armenian Language, as opposed to 48% of their counterparts from Russian schools; or 53% of all participants have high marks in Russian Language in Armenian schools as opposed to 28% of their counterparts in Russian schools. Does this mean that Armenian schools, on the average, graded higher or more leniently than Russian schools? Or does that mean that the best Russian school graduates did not apply to AUA?

The questions might have been answered if we had checked into the average GPAs for all students of Russian and Armenian schools, but none of the assumptions can be supported by the available data. However, if we compare those with low marks in the Armenian Language in the Armenian schools with their counterparts in the Russian ones, we will see that there are no low marks in the Russian schools. That is to say, although the Russian schools tended to be lenient with regard to their population in terms of marking them higher in Armenian, that is giving them only high marks, on the whole they still were much less lenient. And what can we say about low marks in the Russian Language in Armenian and Russian schools? Armenian schools are lenient again: only 3 % of the research participants from Armenian schools have low marks in their L1 and/or L2 as opposed to 8% of their counterparts in Russian schools. This is an interesting fact because once Russian schools were considered to be better educational institutions as compared to Armenian ones. Russian school factor seemed to be determining the overall educational success, perhaps, due to the element of prestige and social advantages coming with Russian schooling: higher positions in the society were often occupied by those with Russian education. High social status brought with it better opportunities for better life, including better educational opportunities, even in terms of access to better professional periodicals and literature (they were available only in Russian). However, as the situation has changed (there are no Russian schools any longer), we can make no judgements with regard to the quality of education provided by Armenian schools today.

The uncertainty with regard to the reliability and validity of the secondary school marks used in this study is aggravated by doubts about the validity of the results generated from the comparison of the TOEFL reading results and secondary school marks for the

language and literature knowledge (which is an issue in itself). All this comes to prove that it is more than crucial for any valid and reliable comparison in a research to employ equivalent instruments of measurement.

Yet even with such a flawed, perhaps, instrument of measurement, I believe I can still suggest that the two controversial outcomes of the two versions of the analyses come to complement rather than contradict each other. Based on my personal experience both as a student of a Russian secondary school and as a teacher of English in a Special secondary school for nearly twenty years, I strongly believe that due to the way the final marks in Armenian and Russian Languages and Literatures are reduced, due to the extent Language and Literature instruction in the secondary schools of Armenia involved reading skills and reading comprehension, due to the extent literacy holistically reflects one's ability to read and understand, the scores may be considered comparable to TOEFL reading scores and relevant for the purposes of this study, if not valid. However, there is no doubt that direct comparison of reading results, that is employment of equivalent instrument, would make the results valid and reliable, as well as free of any internal threats associated with the instruments of measurement.

Learner characteristics. This factor is very important because, as I have mentioned above, the experts in the ESL reading have come to the recognition of the importance of the third dimension, that is context, in the interpretation of the issue. Learner characteristics, this multifaceted subjective factor, entails details about age, L1 and L2 training and literacy, extent of linguistic and metalinguistic awareness, academic training and orientation, manner of instruction, need for specific types of academic literacy, and, perhaps, other details related to the psychological aspects of learning, such as individual learning styles, or even

personality traits. The understanding of the potential impact of learner characteristics makes researchers try to turn at least some of the variables in this domain, for example, age, sex, methods of instruction, or whatever their research contingent allows, into control variables so as to minimize the effect of these factors.

As to this study, I must admit that I did not put special efforts to turn any of the above mentioned variables describing the participants of this research in terms of learner characteristics into control variables, because I assumed my participants to be more or less homogenous in many ways. However, closer inspection into details revealed that some of the factors might be a source of concern.

Table 14 Learner Characteristics Describing Participants of this Study.

	School Group A: Armenian schools	School Group R: Russian schools	School Group S: Special schools
Private classes	18	26	2
Place of residence: Yerevan	20	45	10
School Type	28	50	10
Year of Finishing sch. 1970-1985	0	9	2
Year of Finishing sch. 1986-1990	8	21	3
Year of Finishing sch. 1991-1996	20	19	5

Note. Total number of participants in this study is 88.

From this table we can see that 75 participants are from the capital of Armenia as opposed to 13 from other cities, that out of 88 participants of the research 46 had taken private classes, and that 11 participants are graduates of 1985 and earlier, while the rest are

graduates of from 1985 till 1998. The most serious source of concern, in my opinion, is in the fact of taking private classes, because one can never be sure what results would the analysis have yielded if everybody had had the same private instruction.

Other concerns are related to the fact that if I had decided to separate only "5"s in both Languages and Literatures who had private instruction, finished the same type of school in the same year, and were from the capital of Armenia, I do not know what the results might have been in that case.. As a matter of fact, it only seems that the place of residence or the year of finishing school may not be serious sources of concern, because since the fall of the Soviet regime the educational system of Armenia, along with every other aspect of life, has been living through a downfall in quality. This is to say that those who had finished school before 1985 may have had a better quality education at large, and consequently better quality of instruction in Armenian and Russian Languages and Literatures. Given the absence of descriptors for evaluating oral answers, "5"s may have been quite different then and now. Moreover, one can never know what the comparison would have revealed if those of the 1985-and -before graduates who had taken private English classes were compared to those of the 1998 graduates who have also taken private English classes, or even to those of the 1998 graduates who could not afford to take private English classes. In addition, residents of cities other than Yerevan may have a lower quality of education at large, and in languages in particular. If we also take into account complicating factors stemming from other aspects of learner characteristics mentioned above (for example, individual personality traits, learning styles, and others) we can see that turning some of these constructs (for example, place of residence, year of finishing school, or others) into control variables would only have added to the reliability and validity of the

results of this study.

4.3. Potential threats to external validity of the research

Since all threats to internal validity also represent potential threats to external validity, here I will address issues other than those related to internal validity of the study. There seem to be two such threats:

First, there are no Russian secondary schools at present, and soon there may be no students with a mixed background either, unless there come to exist Russian schools as a subtype of the so-called special schools with intensive instruction of the subject.

Second, AUA is a unique educational environment with a unique student population. Actually, not everybody in Armenia is even considering the possibility of entering AUA because of financial issues. In addition, only the better part of graduates of Armenian higher educational institutions are either motivated or able to continue their postgraduate studies at AUA because of its high GPA requirement. Thus, the limitations related to the specific characteristic of the contingent in the study, naturally, affect the issue of generalizability of the results.

Yet summing up the discussion of threats to internal and external validity of this study, it seems appropriate to recognize that, on the whole, the results of the study could have been viewed as supporting both LTH and LIH if not the limitations discussed above. In fact, the results of the second analysis suggest the existence of the relationship between the L1 and /or L2 of the participants of the study and their English reading scores. In other words, the results of the second analysis seem to confirm the universality of reading skills with proficient in their L1 readers. Yet the results of the first analysis seem to suggest that

there must be significant difference in the levels of native and foreign or second language proficiencies for the transfer of the skills to occur. Nevertheless, it should be clearly stated that in terms of validity of the study no conclusive statements can be made, and in terms of generalizability the results of this study are of direct institutional value only. However, it is important that the findings be related to the research purposes to make any comments in terms of significance and value of the research on the whole.

4.4. Overall value and significance of this study

To evaluate this research in terms of its overall value and significance, let us consider to what extent the goals have been met.

First of all, to my knowledge, in Armenia there has never been any previous research of the kind. The reasons for that are in the fact that it was only with the fall of the Soviet Union that the doors of overseas educational institutions opened to Armenian applicants. To be admitted, they had to take either the TOEFL or the IELTS, or some other psychometric test. This requirement meant introduction of the TOEFL, or any other similar test, into our reality. Naturally, this kind of quantitative comparisons with ensuing qualitative interpretations of the results were not part of our reality before that reality itself had changed. In that sense, this is a pioneer research that is bound to trigger interest in other EFL experts in Armenia by opening new frontiers in EFL research. The interest in the unexplored research territory seems to have the potential of driving others into similar research: a process which will eventually contribute to the process of making qualified decisions on language policy in Armenia because at present we are reconsidering our ends and means in the instruction of a foreign language, including ways to measure and evaluate the process,

the progress, and the end product of the instruction.

Second, the "exploratory drilling" showed that the follow-up research is a must because the results of this study, while allowing for no conclusive statements, seem to suggest that there is a relationship between the L1 and/or L2 literacy and L3 reading skills (in our case, between the knowledge of Armenian and Russian Languages and Literatures and English reading skills) at large, and that the level of the L1 and L2 literacy is, perhaps, crucial in determining that relationship.

Third, regarding decisions on issues of bilingualism in Armenia, the study also demonstrated the need of posing questions that may really help exploring the impact of bilingualism on the progress in a third language, that is English. For example, the follow-up experiment may be designed so that it would include the instruction of reading skills in L1 and English, in L1, L2 and English in experimental groups as opposed to instruction of reading skills only in English in the control group. However, as stated earlier in this study, the results of this research may help initiating a discussion of the value of bilingual education in the current context of education in Armenia.

Fourth, it seems that at present Armenia is living through times comparable to some extent with the late 1960s in the US and Britain when even without a theoretical framework for some time, ESL instruction started changing on a practical level to meet the advanced reading and writing imperatives which emerged with a dramatic increase in ESL student enrollment at U.S. and British tertiary institutions in (Grabe, 1991). In that sense, this research seems to have an awareness raising potential: it may contribute to the process of the recognition of the gap between the theory and practice in a foreign language instruction for academic purposes in Armenian context, thus generating adequate efforts on behalf of

Armenian educators to fill in the gap.

APPENDICES

APPENDIX A:

Applicants' TOEFL Scores and secondary School Marks in Armenian and Russian

Languages and Literatures

ID #	List #	Name	TT	TR	Sch #	SCH	YG	PR	AL	ALT	RL	RLT
Type												
2673	1	Arakelian Tereza	523	55	2	A	1992	Stepanavan	5	5	4	4
2591	2	Artenyan Gohar	433	44	126	A	1992	Yerevan	5	5	5	5
2628	3	Aslanian Varduhi	500	53		A	1992	Yerevan	4	5	5	5
2578	4	Badanyan Arman	490	47	1	A	1992	Yerevan	3	3	3	3
2339	5	Grigoryan Lusine	517	58	163	A	1991	Yerevan	4	4	4	4
2648	6	Hakobian Lilit H.	433	46	1	A	1989	Sisian	4	5	5	5
2649	7	Harutyunyan Lida	507	51	13	A	1992	Yerevan	5	5	5	5
2656	8	Hovhannisyan Lusine	480	49	183	A	1992	Yerevan	5	5	4	4
2539	9	Israelyan Armine	460	43	1	A	1992	Artashat	5	5	5	5
2719	10	Javadyan Armine	503	51		A	1994	Yerevan	5	5	5	4
1748	11	Kasarjian Milada	537	54	5	A	1987	Yerevan	4	5	5	5
2474	12	Khachatryan Artashes	453	43	4	A	1992	Charentsavan	5	5	4	4
2127	13	Madoyan Elmira	497	50		A	1991	Artik	5	5	5	5
2383	14	Manukian Lusine	490	50	23	A	1989	Yerevan	5	5	4	5
2455	15	Margaryan Araxia	503	53	86	A	1987	Yerevan	4	5	5	5
2660	16	Meliksetian Nelly	453	45	180	A	1993	Yerevan	5	5	5	5
2694	17	Mermerian Hripsime	503	51	6	A	1993	Yerevan	5	5	4	5
2721	18	Minasyan Hasmik	520	55	102	A	1993	Yerevan	5	5	5	5
2400	19	Nikoghosyan Mary	547	55		A	1992	Artashat	5	5	5	5
2608	20	Poghosyan Tigran	533	53	19	A	1993	Yerevan	5	5	5	5
2752	21	Salatyan Maria	530	51	59	A	1994	Yerevan	5	4	4	3
2585	22	Sargsyan Lusine	433	41	29	A	1988	Yerevan	3	4	4	4
2574	23	Sedrakian Gnel	510	51	129	A	1991	Yerevan	4	5	5	4
2681	24	Shahbazian Samvel	473	51	31	A	1991	Yerevan	5	5	5	5
2131	25	Shahinyan Gayaneh	500	50	104	A	1989	Yerevan	5	5	5	5
2695	26	Torosian Varduhy	483	49	acad.sch	A	1993	Gyumri	5	5	4	5
2679	27	Toumanian Gohar	460	49	19	A	1987	Yerevan	4	5	5	5
2576	28	Voskanian Frunzik	440	42		A	1989	Gyumri	4	4	4	4

2577	1	Abrahamian Naira	440	38	132	R	1987	Yerevan	5	5	4	4
2642	2	Abrahamian Anahid	477	47	147	R	1979	Yerevan	4	4	4	5
2566	3	Amalyan Sevak	497	49	2	R	1991	Gyumri	4	5	4	5
1986	4	Andekyan Zoya	537	56	171	R	1989	Yerevan	5	5	5	5
2672	5	Arzrumtsyan Gayane	483	49	30	R	1992	Yerevan	4	4	5	4
958	6	Asatryan Armen	437	49	7	R	1977	Yerevan	4	5	5	5
2662	7	Asatryan Vahagn	533	58	164	R	1992	Yerevan	5	5	5	5
2635	8	Aslikian Lala	503	51	149	R	1992	Yerevan	4	5	5	5
2615	9	Avanesyan Gayane	533	54	71	R	1987	Yerevan	4	4	4	5
2637	10	Dadayan Silva	500	53	166	R	1984	Yerevan	5	5	5	5
2758	11	Danielyan Arman	513	53	7	R	1985	Yerevan	5	5	4	4
2502	12	Ghazaryan Gagikl	537	56	122	R	1987	Yerevan	5	5	4	5
1943	13	Grigorian Lilit	450	47	149	R	1989	Yerevan	4	4	4	4
2270	14	Hakobian Liana	540	58	71	R	1992	Yerevan	4	4	4	4
2610	15	Hakobyan Edita	543	55	7	R	1988	Yerevan	5	5	4	5
2584	16	Hakobyan Lilit E.	487	51	132	R	1992	Yerevan	5	5	4	5
2619	17	Hakobyan Narine	463	49	83	R	1996	Yerevan	4	5	3	4
2659	18	Harutyunyan Armen	473	51	20	R	1990	Yerevan	5	5	4	5
2600	19	Harutyunyan Armine	483	49	62	R	1993	Yerevan	5	5	4	5
2623	20	Harutyunyan Artur	497	53	122	R	1987	Yerevan	4	4	4	4
2692	21	Jangiryan Hripsime	530	51	122	R	1989	Yerevan	4	3	4	4
2666	22	Kagramanian Lusine	477	49	30	R	1992	Yerevan	5	5	5	5
2597	23	Kirakosyan Anna	560	59	77	R	1992	Yerevan	5	5	5	5
2406	24	Krmoyan Tigran	510	54	58	R	1993	Yerevan	4	4	4	4
2753	25	Mailian Anna	490	49	171	R	1992	Yerevan	5	4	4	5
2686	26	Makarian Vardan	443	49	5	R	1990	Echmiadzin	4	4	4	3
2668	27	Malumian Haikuhi	480	44	122	R	1986	Yerevan	5	5	4	5
2568	28	Manukyan Marine	433	44	77	R	1990	Yerevan	5	5	4	4
2121	29	Maragaryan Armen	483	50	2	R	1991	Gyumri	4	5	5	5
2658	30	Mirzoyan Anna	487	51	76	R	1983	Yerevan	4	5	4	5
1951	31	Mkhitarian Liana	510	53	132	R	1978	Yerevan	5	5	5	5
1946	32	Mkrtchian Armen	483	49	76	R	1985	Yerevan	4	4	4	4
2627	33	Mkrtchyan Vahe	463	49	147	R	1990	Yerevan	4	5	4	4
2630	34	Nazarian Knarik	540	50	83	R	1992	Yerevan	4	5	3	5
2689	35	Ohanian Ripsime	543	55	182	R	1993	Yerevan	5	5	4	5
2728	36	Rostomyan Ara	480	47	77	R	1991	Yerevan	4	4	4	4
2684	37	Safaryan Artak	450	41	182	R	1989	Yerevan	4	4	3	3

2661	38	Sakanyan Tsovinar	477	51	4	R	1989	Vanadzor	5	5	5	5
2693	39	Sargsyan Shoghik	560	59	128	R	1988	Yerevan	4	5	4	4
2715	40	Sarukhanyan Lilit	467	48	132	R	1987	Yerevan	4	4	4	4
2732	41	Semizyan Eveline	507	48	20	R	1993	Yerevan	5	5	5	5
2583	42	Shahverdyan Armen	510	52	83	R	1985	Yerevan	5	5	4	5
1919	43	Shekoyan Ara	483	48	30	R	1989	Yerevan	4	4	4	4
2739	44	Simonyan Iveta	480	52	164	R	1989	Yerevan	5	5	5	5
2450	45	Smbatyan Inessa	447	47	8	R	1991	Yerevan	5	5	4	5
2664	46	Stepanyan Hasmik	523	51	182	R	1990	Yerevan	5	5	5	5
2570	47	Ter-Margaryan Vahe	507	51	55	R	1988	Yerevan	4	4	3	4
1875	48	Tigranian Narine	450	44	132	R	1990	Yerevan	5	5	4	4
2575	49	Valesyan Arman	490	46	14	R	1992	Gyumri	4	4	4	4
2626	50	Virabyan Nora	533	55	85	R	1970	Yerevan	5	5	5	5
2722	1	Aghamian Karine	507	51	114	S	1978	Yerevan	5	5	5	5
2700	2	Dadayan Lusine	480	45	139	S	1993	Yerevan	5	5	5	5
2755	3	Emyan Mariam	487	52	67	S	1992	Yerevan	5	5	5	5
2168	4	Gevorgyan Vahan	497	50	139	S	1991	Yerevan	4	4	4	5
2703	5	Harutunian Mary	493	50	172	S	1993	Yerevan	4	3	4	3
2469	6	Jamkochian Marine	527	51	114	S	1986	Yerevan	4	5	5	5
2580	7	Manukian Petros	513	48	172	S	1993	Yerevan	4	4	4	5
2495	8	Nalabandian Arman	450	47	172	S	1990	Yerevan	3	4	4	5
2586	9	Sevian Alexander	513	55	78	S	1972	Yerevan	5	5	4	4
2730	10	Vanyan Sona	537	50	139	S	1988	Yerevan	4	4	4	4

APPENDIX B

Descriptive Statistics characterizing the Sample Population of this Study in Terms of Place of Residence, Types of Secondary Schools, Year of Finishing School, Private Classes in English

Table B₁. Private Classes by School Group (SG).

PRIV.Cl.	SG(SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
No	10	24	8	42
	11.36	27.27	9.09	47.73
	23.81	57.14	19.05	
	35.71	48.00	80.00	
Yes	18	26	2	46
	20.45	29.55	2.27	52.27
	39.13	56.52	4.35	
	64.29	52.00	20.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Note. SG A – Armenian schools, SG R- Russian schools, SG S- Special schools;

Table B₂. Place of Residence: Capital vs. Non-Capital (C/NC) by School Group (SG).

C/NC (C/NC)	SG(SG)			
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
0	8	5	0	13
	9.09	5.68	0.00	14.77
	61.54	38.46	0.00	
	28.57	10.00	0.00	
1	20	45	10	75
	22.73	51.14	11.36	85.23
	26.67	60.00	13.33	
	71.43	90.00	100.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

Table B3. Year of Finishing School by School Group (SG).

YEAR (YEAR)	SG (SG)			Total
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
1970	0	1	0	1
	0.00	1.14	0.00	1.14
	0.00	100.00	0.00	
	0.00	2.00	0.00	
1972	0	0	1	1
	0.00	0.00	1.14	1.14
	0.00	0.00	100.00	
	0.00	0.00	10.00	
1977	0	1	0	1
	0.00	1.14	0.00	1.14
	0.00	100.00	0.00	
	0.00	2.00	0.00	
1978	0	1	1	2
	0.00	1.14	1.14	2.27
	0.00	50.00	50.00	
	0.00	2.00	10.00	
1979	0	1	0	1
	0.00	1.14	0.00	1.14
	0.00	100.00	0.00	
	0.00	2.00	0.00	
1983	0	1	0	1
	0.00	1.14	0.00	1.14
	0.00	100.00	0.00	
	0.00	2.00	0.00	
1984	0	1	0	1
	0.00	1.14	0.00	1.14
	0.00	100.00	0.00	
	0.00	2.00	0.00	
1985	0	3	0	3
	0.00	3.41	0.00	3.41
	0.00	100.00	0.00	
	0.00	6.00	0.00	
1986	0	1	1	2
	0.00	1.14	1.14	2.27
	0.00	50.00	50.00	
	0.00	2.00	10.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

(Continued)

YEAR (YEAR)	SG (SG)			Total
Frequency				
Percent				
Row Pct				
Col Pct	SG A	SG R	SG S	Total
1987	3	5	0	8
	3.41	5.68	0.00	9.09
	37.50	62.50	0.00	
	10.71	10.00	0.00	
1988	1	3	1	5
	1.14	3.41	1.14	5.68
	20.00	60.00	20.00	
	3.57	6.00	10.00	
1989	4	7	0	11
	4.55	7.95	0.00	12.50
	36.36	63.64	0.00	
	14.29	14.00	0.00	
1990	0	5	1	6
	0.00	5.68	1.14	6.82
	0.00	83.33	16.67	
	0.00	10.00	10.00	
1991	4	5	1	10
	4.55	5.68	1.14	11.36
	40.00	50.00	10.00	
	14.29	10.00	10.00	
1992	9	10	1	20
	10.23	11.36	1.14	22.73
	45.00	50.00	5.00	
	32.14	20.00	10.00	
1993	5	4	3	12
	5.68	4.55	3.41	13.64
	41.67	33.33	25.00	
	17.86	8.00	30.00	
1994	2	0	0	2
	2.27	0.00	0.00	2.27
	100.00	0.00	0.00	
	7.14	0.00	0.00	
1996	0	1	0	1
	0.00	1.14	0.00	1.14
	0.00	100.00	0.00	
	0.00	2.00	0.00	
Total	28	50	10	88
	31.82	56.82	11.36	100.00

APPENDIX C-1

Model developed by Hedgcock and Atkinson (1993)

Questionnaire: Reading Habits and Preferences

ID # _____

Native language: _____

Did you take COMP 101 at USC _____

Thank you for participating in our survey! We hope that you will respond to the following questions as accurately as than English, please answer the questions below considering only you experiences possible. Your responses are completely anonymous. If you are a native speaker of a language other with English.

1. How much pleasure reading did you typically do whole in elementary?

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

2. How much pleasure reading did you typically do while in high school?

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

3. Please estimate how much time (in minutes or hours) you spend reading for pleasure per day when you are not taking classes (e.g. on weekends, during vacations, in the summer).

4. Please estimate how much time (in minutes or hours) you spend reading for pleasure per day when you are taking classes.

5. Please estimate how much time you spend reading for school per day when you are taking classes (in minutes or hours).

6. using the scale below, please indicate the type of material which you were most likely to read in elementary school. You may use any number as often as you like.

- 4 = I used to read this type of material very often.
- 3 = I used to read this type of material often.
- 2 = I didn't read this type of material very much.
- 1 = I didn't read this type of material at all.

Textbooks and technical books _____

Novels and other fiction _____

News papers and news magazines _____

Comic books _____

Other (please specify) _____

7. using the scale below, please indicate the type of material which you were most likely to read in high school. Again, you may use any number as often as you like.

- 4 = I used to read this type of material very often.
- 3 = I used to read this type of material often.
- 2 = I didn't read this type of material very much.
- 1 = I didn't read this type of material at all.

Textbooks and technical books _____

Novels and other fiction _____

News papers and news magazines _____

Comic books _____

Other (please specify) _____

8. Using the scale below, please indicate the type of material you currently read or do not read. Numbers may be used more than once.

- 4 = I read this type of material very often.
- 3 = I read this type of material often.
- 2 = I don't read this type of material very much.
- 1 = I don't read this type of material at all.

Textbooks and technical books _____

Novels and other fiction _____

News papers and news magazines _____

Comic books _____

Other (please specify) _____

9. Please give a personal assessment of your own writing by marking the number corresponding to the description that best fits you.

- 5 = I am a highly competent writer.
- 4 = My writing is pretty good.
- 3 = I consider my writing to be of average quality.
- 2 = I don't consider myself a very good writer.

1 = My writing is weak.

10. If you can, please indicate the rubric score you received on your COMP 101 FINAL EXAM (not the course grade). If you do not remember the score, but remember the grade, (e.g. A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F) please report it here. If you did not take COMP 101 at USC, indicate the course grade you received in your last composition course.

THANK YOU FOR YOUR HELP!

APPENDIX C-2

Initial Version developed in Armenian after the Model by Hedgcock and Atkinson (1993)

ՀԱՐՑԱԹԵՐԹԻԿ

Սովորություններ և նախապատվություններ ընթերցելիս

ID # _____

Մայրենի լեզու _____

Շնորհակալություն մեր ուսումնասիրությանը մասնակցելու համար: Հուսով ենք, որ մեր հարցերին կպատասխանեք հնարավորին չափ ճշգրիտ: Պատասխանողի ինքնությունը կմնա չբացահայտված: Յուրաքանչյուր հարցին տրված են հնարավոր տարբերակներ: Օղակի մեջ էթե ձեր մայրենի լեզուն անգլերենը չէ խնդրում ենք պատասխանել ներքոհիշյալ հարցերին ելնելով միայն անգլերենի ուսումնասիրության փորձից:

1. Ինչքա՞ն էք սովորաբար ընթերցել հաճույքի համար տարրական դասարաններում _____

5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
 3=միջին չափով (ճրեկան մոտ կես ժամ)
 2=ոչ շատ (օրեկան կես ժամից պակաս)
 1=ամենևին կամ գրեթե ամենևին

2. Ինչքա՞ն էք սովորաբար ընթերցել հաճույքի համար միջին և բարձր դասարաններում _____

5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
 3=միջին չափով (ճրեկան մոտ կես ժամ)
 2=ոչ շատ (օրեկան կես ժամից պակաս)
 1=ամենևին կամ գրեթե ամենևին

3. Խնդրում ենք նշել (ժամերով կամ րոպեներով) թե օրեկան ինչքան էք ընթերցում հաճույքի համար ուսումնառությունից ազատ ժամանակ (օրինակ՝ ուիկենդին, արձակուրդներին, ամռանը) _____

4. Խնդրում ենք նշել (ժամերով կամ րոպեներով) թե օրեկան ինչքան էք ընթերցում հաճույքի համար ուսումնառության ընթացքում _____

5. Խնդրում ենք նշել (ժամերով կամ րոպեներով) թե օրեկան ինչքան եք ընթերցում հաճույքի համար ուսումնառության նպատակով _____

6. Օգտվելով ստորև տրված սանդղակից խնդրում ենք նշել, թե ինչ բնույթի նյութ եք ամենայն հավանականությամբ ընթերցել տարրական դասարաններում: Ցանկացած թիվ կարող եք օգտագործել ցանկացած հաճախությամբ

- 4 = Այս տիպի նյութ շատ հաճախ եմ ընթերցել
- 3 = Այս տիպի նյութ հաճախ եմ ընթերցել
- 2 = Այս տիպի նյութ հաճախ չեմ ընթերցել
- 1 = Այս տիպի նյութ ամենևին չեմ ընթերցել

Դասագրքեր և մասնագիտական գրականություն _____
Վեպեր և գեղարվեստական այլ երկեր _____
Լրագրեր և ամսագրեր _____
Այլ տիպի նյութեր (նշել տեսակը) _____

7. Օգտվելով ստորև տրված սանդղակից խնդրում ենք նշել, թե ինչ բնույթի նյութ եք ամենայն հավանականությամբ ընթերցել միջին և բարձր դասարաններում: Ցանկացած թիվ կարող եք օգտագործել ցանկացած հաճախությամբ

- 4 = Այս տիպի նյութ շատ հաճախ եմ ընթերցել
- 3 = Այս տիպի նյութ հաճախ եմ ընթերցել
- 2 = Այս տիպի նյութ հաճախ չեմ ընթերցել
- 1 = Այս տիպի նյութ ամենևին չեմ ընթերցել

Դասագրքեր և մասնագիտական գրականություն _____
Վեպեր և գեղարվեստական այլ երկեր _____
Լրագրեր և ամսագրեր _____
Այլ տիպի նյութեր (նշել տեսակը) _____

8. Օգտվելով ստորև տրված սանդղակից խնդրում ենք նշել, թե ինչ բնույթի նյութ եք ամենայն հավանականությամբ ընթերցել ներկայումս: Ցանկացած թիվ կարող եք օգտագործել ցանկացած հաճախությամբ

- 4 = Այս տիպի նյութ շատ հաճախ եմ ընթերցել
- 3 = Այս տիպի նյութ հաճախ եմ ընթերցել
- 2 = Այս տիպի նյութ հաճախ չեմ ընթերցել
- 1 = Այս տիպի նյութ ամենևին չեմ ընթերցել

Դասագրքեր և մասնագիտական գրականություն _____
Վեպեր և գեղարվեստական այլ երկեր _____

Լրագրեր և ամսագրեր _____
Այլ տիպի նյութեր (նշել տեսակը) _____

9. Ձեր կարծիքով դուք լավ ընթերցող եք (խնդրում ենք հիշել, որ խոսքը վերաբերում է միայն անգլերենին)

- 5 = շատ լավ
- 4 = լավ
- 3 = միջին
- 2 = ոչ լավ
- 1 = վատ

10. Ձեր կարծիքով մայրենի լեզվով ընթերցելու հմտությունը անդրադառնում է օտար լեզվով ընթերցելու վրա:

- 5 = շատ է անդրադառնում
- 4 = անդրադառնում է
- 3 = ինչ-որ չափով անդրադառնում է
- 2 = քիչ է անդրադառնում
- 1 = ամենևին չի անդրադառնում

APPENDIX C-3
Final Version

ՀԱՐՑԱԹԵՐԹԻԿ

Սովորություններ և նախապատվություններ ընթերցելիս

ID # _____

Մայրենի լեզու _____

Շնորհակալություն մեր ուսումնասիրությանը մասնակցելու համար: Հուսով ենք, որ մեր հարցերին կպատասխանեք հնարավորին չափ ճշգրիտ: Պատասխանողի ինքնությունը կմնա չբացահայտված: Յուրաքանչյուր հարցին տրված են հնարավոր տարբերակներ: Օղակի մեջ առեք կամ ընդգծեք ձեր տարբերակը: Խնդրում ենք հիշել, որ խոսքը վերաբերում է միայն անգլերենին:

11. Որտե՞ղ և ինչպե՞ս եք սովորել անգլերեն.

- ա հանրակրթական դպրոցում
- բ անգլերեն լեզվի հանրակրթական դպրոցում
- գ բուհում
- դ անգլերեն լեզվի մասնագիտացում ունեցող բուհում
- ե մասնավոր դասընթացներում
- զ մասնավոր պարապմունքների միջոցով
- է անգլիախոս արտասահմանցիների հետ շփվելով
- ը անգլիախոս ուսումնական հաստատություններում սովորելով
- թ անգլիախոս միջավայրում ապրելով

12. Ընդհանուր առմամբ, քանի՞ տարի/ամիս եք սովորել անգլերեն:

13. Ինչքա՞ն եք սովորաբար ընթերցել հաճույքի համար *միջին և բարձր դասարաններում*

- 5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
- 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
- 3=միջին չափով (ճրեկան մոտ կես ժամ)
- 2=ոչ շատ (օրեկան կես ժամից պակաս)
- 1=ամենևին

14. Խնդրում ենք նշել, թե օրեկան ինչքա՞ն եք ընթերցում հաճույքի համար

ուսումնառությանից ազատ ժամանակ (օրինակ՝ ուիլկենդին, արձակուրդներին, ամռանը)

- 5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
- 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
- 3=միջին չափով (ճրեկան մոտ կես ժամ)
- 2=ոչ շատ (օրեկան կես ժամից պակաս)
- 1=ամենևին

15. Խնդրում ենք նշել, թե օրեկան ինչքան եք ընթերցում հաճույքի համար *ուսումնառության ընթացքում*

- 5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
- 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
- 3=միջին չափով (ճրեկան մոտ կես ժամ)
- 2=ոչ շատ (օրեկան կես ժամից պակաս)
- 1=ամենևին

16. Խնդրում ենք նշել, թե օրեկան ինչքան եք ընթերցում *ուսումնառության նպատակով*

- 5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
- 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
- 3=միջին չափով (ճրեկան մոտ կես ժամ)
- 2=ոչ շատ (օրեկան կես ժամից պակաս)
- 1=ամենևին

17. Խնդրում ենք նշել, թե ի՞նչ բնույթի նյութ և ինչքա՞ն եք ընթերցել *միջին և բարձր դասարաններում*:

1 Դասագրքեր և մասնագիտական գրականություն

- 5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
- 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
- 3=միջին չափով (ճրեկան մոտ կես ժամ)
- 2=ոչ շատ (օրեկան կես ժամից պակաս)
- 1=ամենևին

2 Վեպեր և գեղարվեստական այլ երկեր

- 5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)
- 4=շատ (միջինում օրեկան մինչև մեկ ժամ)
- 3=միջին չափով (ճրեկան մոտ կես ժամ)
- 2=ոչ շատ (օրեկան կես ժամից պակաս)

1=ամենևին

3 Լրագրեր և ամսագրեր

5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)

4=շատ (միջինում օրեկան մինչև մեկ ժամ)

3=միջին չափով (ճրեկան մոտ կես ժամ)

2=ոչ շատ (օրեկան կես ժամից պակաս)

1=ամենևին

4 Այլ տիպի նյութեր (նշել տեսակը) _____

18. Խնդրում ենք նշել, թե ներկայումս ի՞նչ բնույթի նյութ և ինչքան եք ընթերցում:

1 Դասագրքեր և մասնագիտական գրականություն

5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)

4=շատ (միջինում օրեկան մինչև մեկ ժամ)

3=միջին չափով (ճրեկան մոտ կես ժամ)

2=ոչ շատ (օրեկան կես ժամից պակաս)

1=ամենևին

2 Վեպեր և գեղարվեստական այլ երկեր

5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)

4=շատ (միջինում օրեկան մինչև մեկ ժամ)

3=միջին չափով (ճրեկան մոտ կես ժամ)

2=ոչ շատ (օրեկան կես ժամից պակաս)

1=ամենևին

3 Լրագրեր և ամսագրեր

5= բավական շատ (միջինում օրեկան մեկ ժամից ավելի)

4=շատ (միջինում օրեկան մինչև մեկ ժամ)

3=միջին չափով (ճրեկան մոտ կես ժամ)

2=ոչ շատ (օրեկան կես ժամից պակաս)

1=ամենևին

4 Այլ տիպի նյութեր (նշել տեսակը) _____

19. Ձեր կարծիքով դուք լա՞վ ընթերցող եք (,լավ ընթերցող՝ է համարվում թե՛ արագ՝ ,թե՛ ընկալող՝ հասկանում է ընթերցածի ոչ պակաս քան) .
Խնդրում ենք հիշել, որ խոսքը վերաբերում է միայն անգլերենին:

5 = շատ լավ

4 = լավ

3 = միջին

2 = ոչ լավ

1 = վատ

APPENDIX C-4

English Translation of the Final Version

Questionnaire: Reading Habits and Preferences

ID #: _____

Native language: _____

Thank you for participating in our survey! We hope that you will respond to the following questions as accurately as possible. Your responses are completely anonymous. Please, circle or underline your response. The first question requires more than one response. When answering the questions below, consider only your experiences with English, please.

1. Where did you study English and how?

- a) I studied English in a secondary school.
- b) I studied English in a Special secondary school with Intensive Instruction of English.
- c) I studied English when in college.
- d) I studied English as my major when in college.
- e) I took private classes of English at private institutions.
- f) I took individual private classes of English at home.
- g) I learned English by communicating with English-speaking foreigners.
- h) I learned English when a student in an English-speaking educational institution.
- i) I studied English when living in an English-speaking country.

2. For how many years have you at large studied English?

- a) Up to a year
- b) Up to two years
- c) Up to three years
- d) In case you have studied English for over three years, please, specify for how long

3. How much pleasure reading did you typically do while in high school?

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

4. Please estimate how much time (in minutes or hours) you spend reading for pleasure

per day when you are not taking classes (e.g. on weekends, during vacations, in the summer).

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

5. Please estimate how much time (in minutes or hours) you spend reading for pleasure per day when you are taking classes.

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

6. Please estimate how much time you spend reading for school per day when you are taking classes (in minutes or hours).

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- = None or almost none

7. Using the scale below, please indicate the type of material which you were most likely to read in high school. Again, you may use any number as often as you like.

Textbooks and technical books

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

Novels and other fiction

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)

- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

News papers and news magazines

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

Other (please specify) _____

Using the scale below, please indicate the type of material you currently read or do not read. Numbers may be used more than once.

Textbooks and technical books

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

Novels and other fiction

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

News papers and news magazines

- 5 = Quite a lot (over 1 hour per day on average)
- 4 = A lot (up to 1 hour per day on average)
- 3 = A moderate amount (about 1/2 hour per day)
- 2 = Not much (less than 1/2 hour per day)
- 1 = None or almost none

Other (please specify) _____

9. Please give a personal assessment of yourself as a reader. (Mind that a good reader can read 325-350 words per minute, or a page per 1 or 2 minutes. A good reader is supposed to comprehend no less than 80% of the content.) Do **NOT** forget that you are assessing your skills of reading in English. Mark the number that correspond to the description that best fits you.

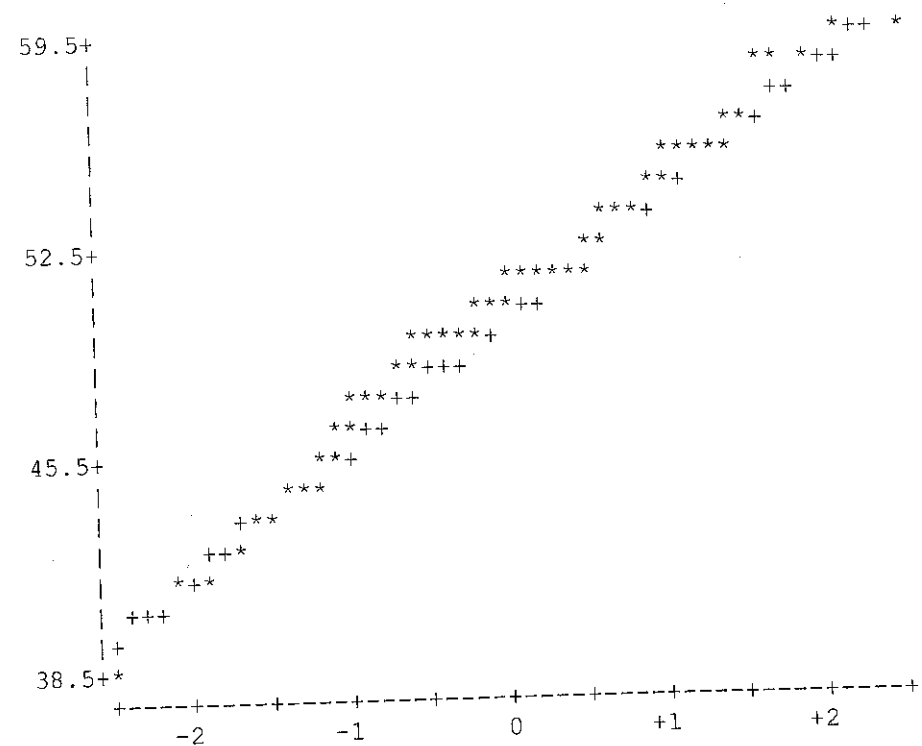
- 5 = I consider myself a highly competent reader.
- 4 = I consider myself a pretty good reader.
- 3 = I consider myself an average reader.
- 2 = I don't consider myself a very good reader.
- 1 = I consider myself a poor reader.

THANK YOU FOR YOUR HELP!

APPENDIX D

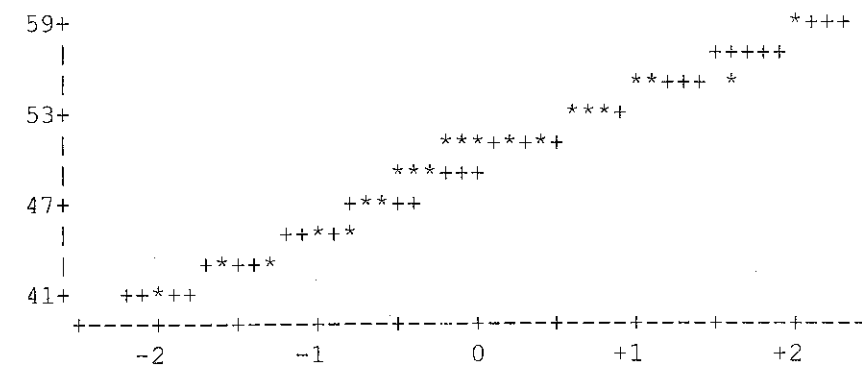
The SAS System
Univariate Procedure
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Normal Probability Plot



The SAS System
SG=A
Univariate Procedure
Variable=TR TR

Normal Probability Plot



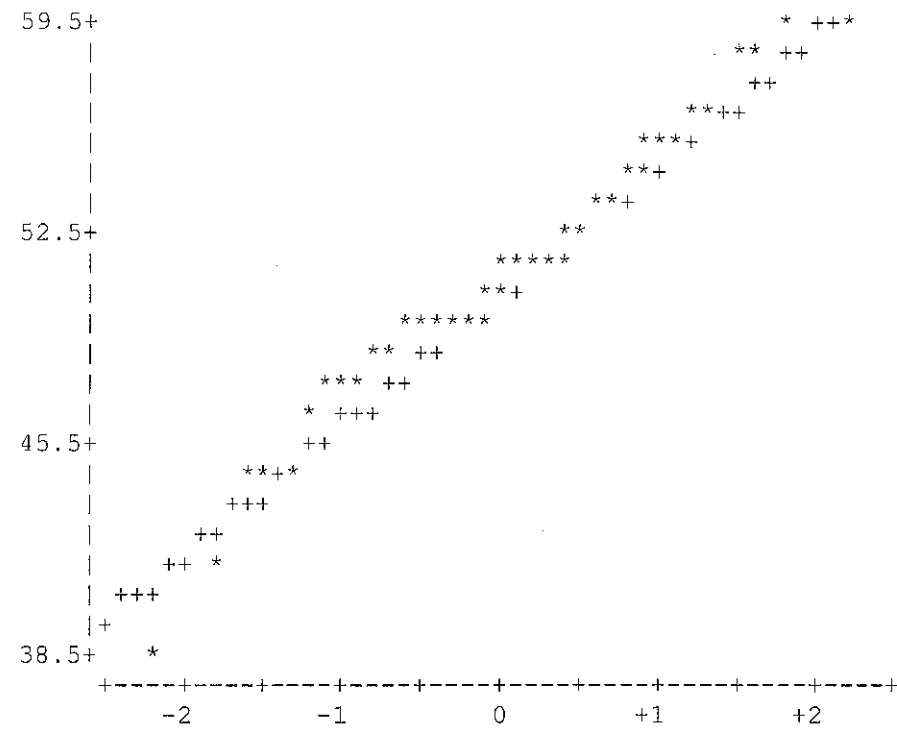
The SAS System

SG=R

Univariate Procedure

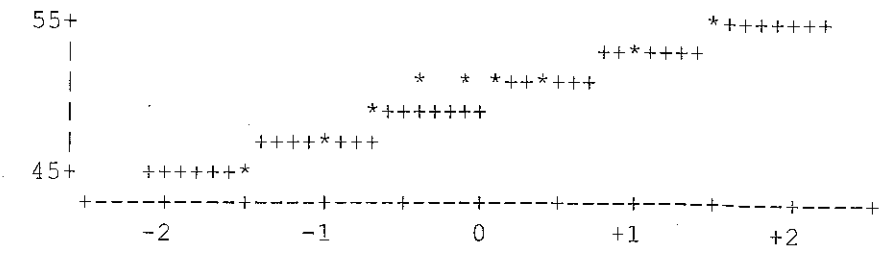
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Normal Probability Plot



SG S

Normal Probability Plot

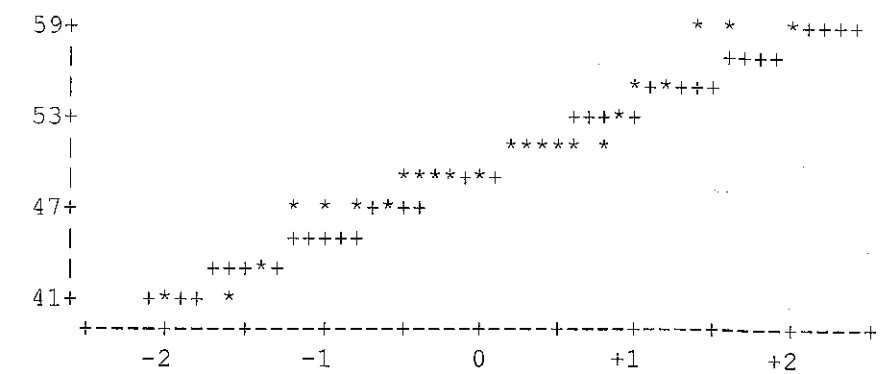


ARLP 1

Univariate Procedure

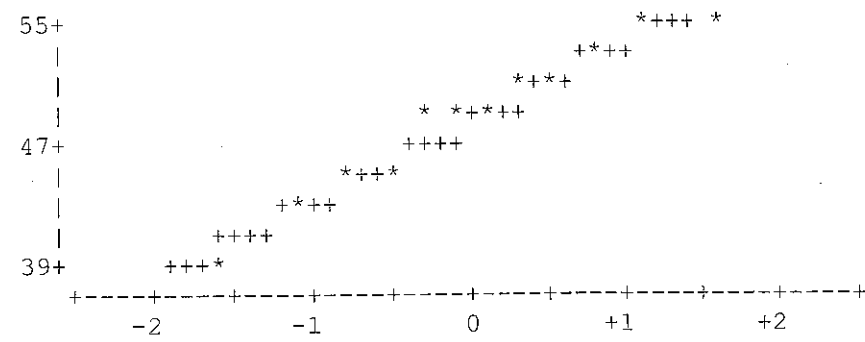
Variable=TR TR

Normal Probability Plot



ARLP 2

Normal Probability Plot



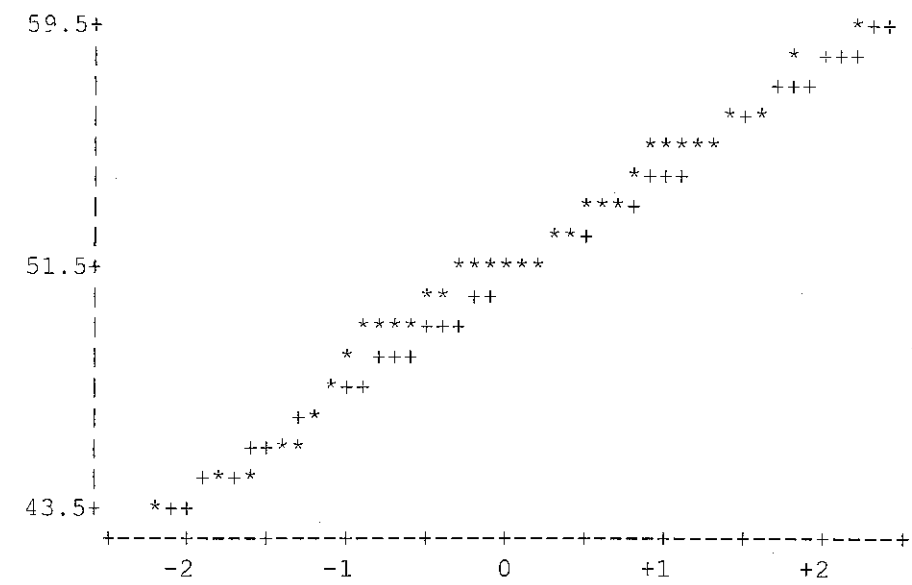
The SAS System

ARLP 3

Univariate Procedure

Variable=TR TR

Normal Probability Plot



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