

The Effects of Simplification and Elaboration on Reading Comprehension of Iranian EFL Learners

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Abstract

Linguistic simplification of written texts may increase their comprehensibility for nonnative speakers but, at the same time, it may perilously reduce their utility for language learning in other ways, for example, through the removal of linguistic items that learners do not know but need to learn. This study was, therefore, conducted to test the hypothesis that elaborative modification observed in oral foreigner talk discourse, where redundancy and explicitness compensate for unknown linguistic items, offers a potential alternative approach to written text modification. To accomplish this task, 5 reading passages were randomly presented to 140 language learners — who had been chosen from among 265 students and whose homogeneity was ensured through a valid test of general English — in one of the three forms: (a) unmodified, (b) simplified, or (c) elaborated. Findings of the study show that the subjects did nearly the same in elaborated and simplified reading passages. However, since elaborated passages preserve the authenticity and naturalness of the language to a quite degree, they are preferable to the conventional simplified texts.

Key Words: Simplification, elaboration, reading comprehension, Iranian EFL learners

Introduction

The ability to read efficiently in any language has always been regarded as the main manifestation of literacy. The better one can read in a language, the more learned s/he is expected to be. Reading for pleasure — from newspaper articles to texts of literary value — is also a commonplace activity many people take to. Moreover, in many parts

of the world a reading knowledge of a foreign language is often important in academic achievements, professional success, and personal development. This is especially true of English as so much professional, technical and scientific literature is published in English today. Yet despite this specific need for the foreign language, it is the common experience, at least of EFL teachers, that most students fail to learn to read adequately in the target language. Very frequently, students reading in a foreign language seem to read with less understanding than one might expect them to, and read considerably slowly.

It is not clear to what extent reading in a foreign language is different from reading in a first language. But one thing is certain: reading is a language phenomenon, so what is true of language must apply to reading. The problem of how language is processed and consequently how text is comprehended, in particular, has tantalized language educators and scholars for many decades. To be more accurate, reading research can be postulated to have started a little more than a hundred years ago when, in 1879, Emil Javal published his first paper on eye movement (Samuels and Kamil, 1988). Surprisingly, however, serious attempts at building explicit models of the reading process — models that describe the entire process from the time the eye meets the page until the reader experiences the click of comprehension — have a history of a little more than forty years (ibid.).

This is not to say that early reading researchers were not concerned about all aspects of the reading process or that there were no scholarly pieces from which a model could be deduced fairly easily. It is perhaps more accurate to speculate that until the mid-1950s and the 1960s (ibid.), there simply was not a strong tradition of attempting to conceptualize knowledge and theory about the reading process in the form of explicit reading models.

There are several factors that account for the observed burst in model-building activity from, say, 1965 to the present (see, for example, Goodman, 1971; Rumelhart, 1977; Stonovich, 1980; Carrell, 1988; Grabe, 1997; Urquhart & Weir, 1998; Anderson, 2000).

Surely the changes that occurred in language research and the psychological study of mental processes played a major role by elevating reading research to a more respectable stature. Just as surely, the advent of what has come to be known as the psycholinguistic perspective (Goodman, 1967) pushed the field to consider underlying assumptions about basic processes in reading. Goodman (ibid.) worked out a model of reading over several years which is often dubbed *reading as a psycholinguistic guessing game*.

Before the mid-1960s, because of the emphasis on behaviourism, the models of reading process attempted to describe how stimuli, such as printed words and word-recognition responses, became associated (Samuels & Kamil, 1988). After the mid-1960s, with the emergence of cognitive psychology as a major force, the models began to show how processes, such as memory and attention, which went on within the recesses of the human mind, played a role in reading. As more became known about comprehension, an attempt was made to model this process through conceptual networks.

The models of 1970s tended to be linear information processing models, whereas the later models tended to be interactive with opportunities for feedback loops from components in the later stages to influence components in the earlier stages. In the later models meaning is not constructed just from the particular text segments we are processing but from its surrounding environment.

The earlier bottom-up reading models had a tendency to depict the information flow in a series of discrete stages, with each stage transforming the input and then passing the recorded information on to the next higher stage for additional transformation and recoding (Stanovich, 1980). Top-down models, on the other hand, conceptualize the reading process as one in which stages which are higher up and at the end of the information-processing sequence interact with stages which occur earlier in the sequence. It should be borne in mind that just as bottom-up models have problems, so do the top-down models (Samuels & Kamil, 1988; Paran, 1996; Grabe, 1997; Weir & Urquhart, 1998; Anderson, 2000). As a result, research conducted by reading experts, in both first and second/foreign

language, gave primacy to an alternative view: the *interactive approach* (Rumelhart, 1977; Stanovich, 1980; Eskey, 1988; Carrell, Devine and Eskey, 1988; Samuels and Kamil, 1988). The previous so-called information-processing models (the bottom-up models as well as the top-down ones) tended to be linear and to have a series of non-interactive processing stages. Each stage in a non-interactive model does its work independently and passes its production to the next higher stage (Samuels & Kamil, 1988). Linear models which pass information along in one direction only and which do not permit the information contained in a higher stage to influence the processing of a lower stage contain a serious deficiency (Rumelhart, 1977).

The deficiencies in linear models of reading, according to Rumelhart, are such that they have difficulty accounting for a number of occurrences known to take place while reading. Nonetheless, an interactive model, which permits the information contained in higher stages of processing to influence the analysis which occurs at lower stages of processing, can account for those well-known occurrences in reading.

Stanovich (1980), also, in his typical model (termed 'compensatory processing'), extols the interactive view:

Interactive models of reading appear to provide a more accurate conceptualization of reading performance than do strictly top-down or bottom-up models. When combined with an assumption of compensatory processing (that a deficit in any particular process will result in a greater reliance on other knowledge sources, regardless of their level in the processing hierarchy), interactive models provide a better account of the existing data on the use of orthographic structure and sentence context by good and poor readers (p.32).

Widdowson (1984), moreover, views written text as a set of directions for conducting an interaction. In his view, meaning is not contained in texts: it is a function of the discourse that is created from the text by interactive procedures. The text is the *product* of the writer's efforts, actual and perceptible on the page, but it has to be reconverted into the interactive *process* of discourse before meaning can be realized (p. 51).

The meaning that is thus derived from a text can never be total or complete because it is conditional on the extent to which different kinds of knowledge of writer and reader correspond, and the extent to which the reader is prepared to engage in the interaction on the writer's terms. What a reader gets out of a text will depend on his/her interest and purpose in reading, as well as his ability to relate what is said to his own knowledge of the world (*ibid.*). Likewise, Wallace (1992) argues that texts do not *contain* meaning, rather they have *potential* for meaning. This potential is realized only in the interaction between text and reader. That is, meaning is created in the course of reading as the reader draws both upon existing linguistic and semantic knowledge and the input provided by the print or written text.

It can plausibly be inferred from the foregoing discussion that interactive models which have interacting hierarchical stages, rather than discrete ones that are passed through in a strictly linear fashion, tend to be superior to erstwhile linear models in either direction (either strictly bottom-up, decoding or strictly top-down, predicting).

The advent of readability formulas – which represented a technical and conceptual advance at the time they were originated (Davison & Green, 1988), making use of new techniques for measuring word frequency and reading ability and for computing statistical correlations – was considered a great accomplishment in the process of text simplification. According to Widdowson (1979), text simplification is a kind of intralingual translation whereby a piece of discourse is reduced to a version written in the supposed interlanguage of the learner. Simplification has been, and still is, very extensively used to prepare materials for language learners. To become aware of this, we need to think of the graded readers which are published in enormous quantities and distributed throughout the world.

The rationale beyond simplification has been the belief that word difficulty and sentence length/complexity are the main factors contributing to text difficulty. Since its commencement, traditional simplification has been censured by many scholars, though. Davies and Widdowson (1974), for example, conclusively illustrate that simplification detracts from the authenticity of the language.

Honeyfield (1977), too, examining the appropriateness and effectiveness of traditional simplification in the light of newer insights into language, questions whether simplification really promotes learning by providing for a smooth and orderly progression to *full* English, as it is supposed to do. Linguistic and content simplification, as Honeyfield believes, produces material which differs significantly from normal English in the areas of information distribution, syntax and communicative structure. What exacerbates the case is that such simplified material may lead to students' developing *reading strategies that are inappropriate* for unsimplified English (*ibid.*). Further, Honeyfield wonders whether it might not be better to avoid simplification, and to replace it with other techniques. Moreover, Widdowson (1979) posits that a modification of lexis and syntax — which is the very conventional process in text simplification — does not necessarily make a passage simpler to interpret as discourse but may indeed make it *more difficult*.

On top of that, Widdowson (1992) draws a distinction between 'simplified versions' and 'simple accounts' (p. 88). *Simplified versions* are passages which are derived from genuine instances of discourse by a process of lexical and syntactic substitution and are judged to be within the linguistic competence of the learner. A *simple account*, on the other hand, is produced by simplifying use rather than usage, concentrating not on linguistic elements as such but on a reformation of *propositional and illocutionary development*. While simplification of usage — the procedure via which simplified versions are produced — can easily result in distortion of use, a simple account is a genuine instance of discourse, designed to meet a communicative purpose. A simplified version, however, is not genuine discourse, it is a 'contrivance for teaching language' (*ibid.*, p. 89).

In the same vein, Yano, Long, and Ross (1994) state that linguistically simplified texts constitute less realistic models of the target language which can negatively affect learner output and language acquisition. While removal of possibly unknown linguistic items from a text *may* facilitate comprehension, it will simultaneously *deny learners access to the items they need to learn*.

Anderson and Davison (1988) also postulate that difficulty of comprehension is not linked in a simple way to complex features of sentence syntax. That is, complex features of sentence structure do not necessarily present a problem every time they occur. Difficulty of sentence structure is not an absolute value, and depends on interactions with other text features, and with features of the reader (*ibid.*).

The only alternative to traditional simplification, which at times detracts from the authenticity of the text and results in choppy, unnatural sentences, seems to be *elaboration*, which is not only appealing in principle but feasible in practice. Elaboration can be defined as any enhancement of information which clarifies or specifies the relationship between information to-be-learned and related information, i.e., a learner's prior knowledge and experience or contiguously presented information (Hamilton, 1997, p. 299). It is, essentially, encoding the original content in a different but related way. It is, also, one of the most effective study aids for acquiring information from text (Baker, 1989, cited in Hamilton, 1997). Further, Hamilton postulates that elaboration increases the richness and redundancy with which we encode the set propositions related to a specific memory episode. The richer and more redundant the activated subset of propositions, the more likely the reconstruction of the original set of propositions.

Earlier research on elaboration has, also, demonstrated that the additions of meaningful links between arbitrary paired items enhanced learning (Sahari, 1997). The creation of a rich cognitive structure explains the efficacy of elaboration in terms of promoting retention, recall and comprehension. Furthermore, Sahari (*ibid.*) states that elaboration allows the reader to add meanings by producing more information than was presented in the text. It encourages the reader to create a broad cognitive structure and aids him/her in restructuring the original author-based ideas of importance into a more concrete, realistic, and personalized version.

Moreover, Larsen-Freeman and Long (1991) contend that the adjustments native speakers make, when addressing nonnative

speakers, fall into two broad categories, linguistic and conversational and that conversational adjustments are more pervasive and provide a rich source of ideas for the elaborative modification of written texts. Conversational adjustments elaborate the input, maintaining much of the original complexity in both lexis and syntax, but compensating by clarifying message content and structure (e.g., through greater topic saliency and use of topic-comment, rather than subject-predicate constructions) and by adding redundancy — e.g., through the use of repetition, paraphrase, and the retention of full noun phrases that would be unnecessary for a competent native speaker (Yano, Long, & Ross, 1994).

Yano, Long, and Ross (1994) have reviewed 15 studies (11 studies of listening and 4 of reading comprehension) of the effects of simplified and elaborated input on nonnative speaker comprehension whose principal findings are briefly as follows:

First, linguistic simplification usually improves literal comprehension, although simple sentences alone may not help and can even hinder comprehension (Blau, 1982; Chaudron, 1983; Long, 1985). Second, simplification is not consistently superior to elaborative modification (Pica, Doughty, & Young, 1986). Third, listening comprehension is consistently improved when elaborative modifications are present (Chaudron & Richards, 1986, cited in Yano, Long & Ross, 1994). Fourth, as might be predicted, there is evidence that modifications (of either type) are more useful to learners of lower L2 proficiency (Blau, 1982). Last, with the possible exceptions of the rate of delivery, single adjustments of one type or another (such as shortening sentences, repetition, or making topics salient) are generally not strong enough to have an effect on the comprehensibility of whole passages or lecturettes (Blau, 1982, 1990).

These findings suggest that elaborative modification of input tends to have a positive effect on comprehension, but they also reveal the need for other carefully controlled studies of the relative effectiveness of simplification and elaboration, especially in the field of reading comprehension.

Elaborative modification is abundantly observed in oral foreigner talk discourse, where *redundancy* and *explicitness*

compensate for unknown linguistic items (Yano, Long, & Ross, 1994). We can, therefore, quite pertinently expect that the very same strategy be applicable to reading comprehension.

Research Questions

This study aspires to find out if either simplification or elaboration of texts promote reading comprehension, and, moreover, if there is any significant difference between the level of comprehension achieved by readers of simplified and elaborated texts. Thus, the following questions are investigated in this study.

- 1. Does simplification have any significant effect on the level of comprehension.*
- 2. Does elaboration facilitate learners' reading comprehension.*
- 3. Is there any statistically significant difference between the level of comprehension achieved by readers of the simplified and elaborated passages.*

Method

Subjects

The subjects of this study were 140 young adult male and female students (aged between 16-19) of lower intermediate level, chosen from among a group of 265 language learners at Shokouh's English Institute in Mashad.

Instrumentation

In order to accomplish the purpose of the research, the following two tests were administered:

1. A test of general English comprising two parts: a Nelson test of structure and the reading ability part of a Cambridge University PET (Preliminary English Test). The Nelson test — as claimed by the authors — was at the same level of difficulty as the PET. The subjects who scored one standard deviation above and below the mean were selected to form a homogeneous group of 140 members.

2. A test of reading comprehension containing five short passages with appended multiple-choice comprehension questions.

This test enjoyed a high correlation with the reading part of the PET. The five passages were taken from articles in the Readers Digest magazine, hence authentic. Three versions of the test were prepared: the unmodified version (in which the texts remained intact and in their original form), the elaborated version, and the simplified one.

Procedure

The 140 subjects, whose homogeneity in terms of language proficiency was ensured by the test of general English, were randomly divided into three groups, two of which comprised 46 and one 48 students. They were, then, given the unmodified, simplified, and elaborated versions, respectively. The subjects were to choose and mark the best choice of the multiple-choice items following each passage on a separate answer sheet.

Design

The study called for an *ex post facto* design consisting of reading comprehension as the dependent variable and text type as the independent one.

Data analysis

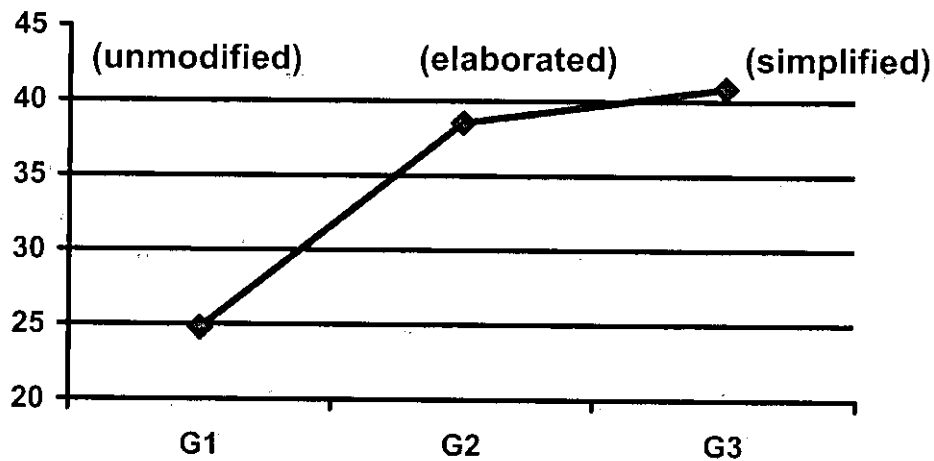
To analyze the data obtained from the multiple-choice reading comprehension tests, one-way analysis of variance (One-Way ANOVA) was required. The F ratio for the means of the three types of passages proved to be significant at the 0.05 level, as illustrated in Table 1.

Table 1. One-Way ANOVA

Source	DF	Sum of Squares	Means Squares	F Ratio	F Prob.
Between Groups	2	3762.4118	1881.2059	19.6580	0.0000
Within Groups	79	7560.0394	95.6967		
Total	81	11322.4512			

A line graph may better indicate how the scores on the three tests obtained by the three individual groups differ:

Figure 1. The Line Graph



The Scheffe test was then applied to the data to find out whether the scores obtained differ significantly, and where this difference lies. This is illustrated in Table 2.

Table 2. Results of the Scheffe Test

Mean	Groups	G1	G2	G3
24.7391	G1			
38.5333	G2	*		
40.8276	G3	*		

G1: Unmodified

G2: Elaborated

G3: Simplified

(*): Significant difference

Results and Discussion

The present study was carried out to test the hypothesis that elaborative modification, observed in oral foreigner talk discourse, enhances reading comprehension as the conventional simplification is believed to do so. The questions underlying justification of the study included (a) whether simplification promotes reading comprehension, (b) whether elaboration increases text comprehensibility, and (c) if the text comprehensibility achieved by simplification and elaboration differs significantly.

As shown in Tables 1 and 2 (results of a one-way ANOVA and the Scheffe test), and Figure 1, the readers of the simplified and elaborated texts scored significantly higher than the readers of the unmodified, native speaker baseline texts. More interestingly, however, there proved to be no significant difference, in terms of reading comprehension, between the readers of the simplified and elaborated texts (see Table 2).

The obtained results are, for the most part, comparable to those of previous studies on reading comprehension. Sahari (1977), for example, showed that elaboration allows the reader to add meaning by producing more information than was presented in the text. Yano, Long, and Ross (1994) also revealed how conversational adjustments elaborate the input, maintaining much of the original complexity in both lexis and syntax, but compensating for the text complexity by clarifying message content and structure and by adding redundancy.

Moreover, in their rather exhaustive studies, Blau (1982), Chaudron (1983), and Long (1985) corroborated the fact that linguistic simplification improves literal comprehension but simple sentences alone do not necessarily help and may even hinder comprehension.

Findings of the present study are also in line with those of Pica, Doughty, and Young's (1986) which substantiate the fact that simplification is not consistently superior to elaborative modification.

Blau (1982) and Yano, Long, and Ross (1994), however, considered language proficiency as an intervening element in their studies and found that there was a strong relationship between learners' English proficiency and their reading comprehension scores.

The findings of this study, implemented on the intermediate Iranian EFL learners, along with the aforementioned ones, demonstrate how elaborative modification of input positively influences reading comprehension.

The results also support Sun-Young Oh's (2001) findings that input should be modified in the direction of elaboration rather than by artificial simplification, because elaboration retains more native-like qualities than, and is at least equally successful as—if not more successful than—simplification in improving comprehension.

Conclusions and Implications

The technique of elaboration, including parenthetical expansion of key terms and concepts in the original text, appears to provide the readers with a *second look* at those terms and concepts and consequently increases the chance that comprehension can be stimulated in the reading process.

In summary, readers of the five simplified texts performed almost the same as readers of the five elaborated texts when both groups were tested on their comprehension of passage content, despite the fact that the elaborated texts were considerably more complex by conventional readability criteria. These results suggest that elaborative modification of texts serves to provide semantic details essential for foreign language readers to make inferences about the texts they read. Elaboration appears to serve the twin functions of most foreign/second language reading lessons: (a) improving comprehension and (b) providing learners with the rich linguistic form they need for further language learning as this strategy provides learners with the full form of the language and allows them to encounter, more or less, authentic and native-like material. Elaboration, therefore, seems to constitute a viable alternative to simplification in EFL written discourse, and be worthy of greater attention by teachers and reading comprehension material writers.

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