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The Frequency Effect on L2 English Learners' Sentence Comprehension: The Case of Object Relative Clauses

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This study investigates the frequency effect on second language (L2) learners' comprehension of English sentences with object relative clauses. Previous research on sentence comprehension has shown that direct object relative clauses are harder to comprehend than subject relative clauses for several possible reasons, but there is little agreement about the reasons. To examine this question, an experiment with forty Korean-speaking upper-intermediate learners of English as participants was conducted in four sessions (i.e., a pre-test, two input sessions, and a post-test) carried out on separate days. During the input sessions, half the participants, randomly assigned to the Relative Clause experience group, read sentences containing relative clauses. The other half, randomly assigned to the Control experience group, read complex sentences not containing relative clauses. The Relative Clause group's accuracy on object relative clauses improved more than that of the Control group. Moreover, the Relative Clause group's reading times for object relative clauses were significantly faster in the post-test than in the pre-test. These results suggest a pedagogical implication: because learners' performance on object relative clauses may improve in response to additional experience of the right type, the frequency effect can be effectively exploited in classroom instruction and materials development.

**[L2 sentence comprehension/frequency of input/English relative clauses/
제 2 언어문장이해/언어입력의 빈도/영어관계절]**

I. INTRODUCTION

Language learners, including both adults and children, are sensitive to the relative frequency of patterns of sounds, words, and sentences in language. For example,

children acquire nouns (e.g., *dog*, *cat*, and *Mom*) quickly, while function words (e.g., *a*, *the*, and *or*) are acquired later; nouns, as content words, are observed more often than function words in the child's early utterances because children are more frequently exposed to nouns; that is, learning, memory, and perception are all affected by frequency of usage, as many studies have shown (e.g., Ellis, 2012). Ellis (2002) pointed out the role of the frequency effect in L2 sentence comprehension and acquisition: In second language acquisition, as in first language acquisition, adult L2 learners can also be expected to learn the more frequent patterns more quickly and accurately; that is, the more times we experience something, the easier it is for us to perceive it and learn it. Based on this assumption, this study investigates the frequency effect on L2 learners' sentence comprehension with direct object relative clauses.

While some literature on second language acquisition has discussed the frequency effect in L2 learning (Ellis, 2002; Gass & Mackey, 2002; Gass & Selinker, 2001), no prior research has directly tested the frequency effect on L2 sentence comprehension with object relative clauses. Therefore, this study employs psycholinguistic methodology to investigate (1) whether it is the lower frequency of direct object relative clauses (RCs) that makes them harder for L2 learners to comprehend, and (2) whether even a small amount of experience (i.e., relevant input) will improve L2 learners' comprehension of direct object relative clauses in terms of accuracy and the speed of reading.

II. BACKGROUND

L2 researchers have commonly discussed the concept of frequency. For example, R. Ellis (1994) claimed that:

> Overall there is very little evidence to support the claim that input frequency affects L2 acquisition but there is very little evidence to refute it. Perhaps the safest conclusion is that input frequency serves as one of the factors influencing development, often in association with other factors such as L1 transfer and communicative need (p. 274).

In particular, Ellis (2002) pointed out the frequency effect on language processing and acquisition, arguing that frequency may be a fundamental cognitive mechanism in learning language, so that very frequent patterns in the input are likely to be noticed. Previous studies found positive effects of frequency in various fields of L2 learning (Bardovi-Harlig, 1987; Gass & Lakshmanan, 1991; Larsen-Freeman, 1976; Lightbown, 1983). However, several issues related to the frequency of patterns in the input have not

been examined systematically. Therefore, one goal of this study is to empirically test Ellis's frequency-based account in a specific case of comprehension of an infrequent pattern.

The English direct object RC structure is a good choice for investigating whether input frequency helps learners comprehend less frequent constructions. Previous research on sentence comprehension by monolingual speakers of English has shown that direct object RCs are harder to comprehend than subject RCs. A possible explanation for this difficulty is that the greater distance between the "filler" (e.g., *the novelist* in (1)) and the "gap" (indicated by underscores) makes direct object RCs (1b) more difficult than subject RCs (1a) for reasons relating to processing and memory cost (Gibson, 1998; Gordon, Hendrick, & Johnson, 2001; King & Just, 1991).

(1) a. The novelist$_i$ that ____$_i$ admired the poet **wrote** two masterpieces last year.
b. The novelist$_j$ that the poet admired ____$_j$ **wrote** two masterpieces last year.

For example, King and Just (1991) found that comprehending direct object RCs required greater working memory than comprehending subject RCs. Gibson and Grodner (Gibson, 1998; Grodner & Gibson, 2005) also suggested that the greater number of intervening words between the filler (e.g., *the novelist* in (1)) and the gap (indicated by underscores) in direct object RCs makes them more difficult to comprehend than subject RCs.

However, other researchers (Gennari & MacDonald, 2009; MacDonald & Christiansen, 2002; Wells, Christiansen, Race, Acheson, & MacDonald, 2009) have pointed to the frequency effect on sentence comprehension. The sentence in (1b) is of a less frequent type; it is noteworthy that the direct object RC has an animate head, and that direct object RCs manifest an OSV-like word order (e.g., *The novelist, the poet admired.*) In other words, subject RCs, which display a word order pattern similar to simple transitive sentences, that is, an SVO-like word order (e.g., *The novelist admired the poet.*), are easier to process than direct object RCs, which have an OSV-like word order. If this is the case, performance on sentences with direct object RCs such as (1b) should improve in response to additional input of the right type. This suggestion is supported by empirical research on first language (L1) sentence comprehension (MacDonald & Christiansen, 2002; Wells et al., 2009). For example, Wells and his colleagues examined the role of frequency in the comprehension of relative clauses. In their study, two groups (with a total of 97 native speakers of English) completed a pre-test, two input sessions, and a post-test. The group receiving relevant input demonstrated a decrease in reading times that was greater for direct object RCs than for subject RCs, whereas the group receiving irrelevant input did not. The group receiving experience

with subject and object RCs read significantly faster at the main verb of direct object RCs (e.g., *wrote* as in (1b)) in the post-test than in the pre-test. This finding implies (1) that the infrequent structure of direct object RCs causes greater difficulty in their comprehension and (2) that frequency could improve learners' performance.

As already mentioned, asymmetries in the comprehension and production of subject RCs and direct object RCs have been noted (O'Grady, 1997; O'Grady, M. Lee, & M. Choo, 2003). There has been experimental work on the second language acquisition (SLA) of English RCs (Doughty, 1991; Eckman, Bell, & Nelson, 1988; Gass, 1979; Hamilton, 1994; Schachter, 1973; Wolfe-Quintero, 1992). For instance, research in L2 acquisition provides strong evidence that subject RCs such as (2a) are easier to produce and understand than are direct object RCs such as (2b).

(2) a. the man that likes the woman
b. the man that the woman likes

A few research studies on the acquisition of English RCs by Korean adult learners of English also provide strong evidence that subject RCs are easier for these learners to produce and understand than direct object RCs (S. Cho, 2002; I. Choi & J.-I. Kim, 2008, 2009; J.-D. Jang, 2005; J.-I. Kim, 2009). Various approaches have attempted to explain the difficulty of acquiring direct object RCs. It has frequently been noted that the noun phrase accessibility hierarchy (NPAH) accounts for the relative difficulty of producing and understanding direct object RCs (e.g., Keenan & Comrie, 1977). Another reasonable explanation takes processing considerations to be responsible for the contrast between the two patterns of RCs (Gibson, 1998; Hawkins, 1989). On this view, it is the linear distance between the filler (i.e., a head noun) and the gap (i.e., its original position) that causes the difficulty of understanding direct object RCs. A quite different approach to relative clauses in SLA accounts for the asymmetry between subject RCs and direct object RCs in terms of input frequency: less frequent patterns such as direct object RCs are harder to understand, thus the acquisition of direct object RCs is harder. From this perspective, performance on sentences with direct object RCs should improve in response to additional input of the right type.

This study seeks evidence for the frequency effect on the comprehension of direct object RCs by conducting an experiment using a self-paced reading paradigm. The results will provide two dependent measures: (a) reading times at particular regions within the sentences and (b) comprehension accuracy. This paradigm is based on two assumptions. First, the additional memory load needed to keep track of the dependency formed between the filler (i.e., a head noun such as *the novelist* in (1)) and the gap (i.e., the original position of the head noun) causes difficulty of comprehension. Again taking

(1) as an example, if participants recognize the potential gap position of the phrase *the novelist* at the critical word (i.e., *wrote*), they are likely to slow down at the critical word. Longer reading times reflect difficulties in comprehending. Second, participants' answers to comprehension questions (e.g., following (1b), the question *Did the poet admire the novelist?*) show how well they comprehend the direct object RCs, and thus provide additional data.

Although there is some evidence supporting the positive effect of input frequency on native speakers, such an effect has never been empirically investigated for L2 sentence comprehension. To address this lack, the present study examined the hypothesis that the more exposure to relevant input L2 learners have, the better they will comprehend direct object RCs. Moreover, this study will provide information about what causes the asymmetry between subject RCs and direct object RCs. Specifically, the study addresses two research questions:

1) Will L2 learners' comprehension of direct object RCs improve in response to exposure to additional input?
2) Will L2 learners' exposure to additional input lead to an increase in processing speed (as measured by reading times) of direct object RCs?

III. METHOD

1. Participants

Forty native speakers of Korean, all undergraduate students and L2 learners of English at Korea University in Seoul, participated in this study. They received payment for their time. At the time of the study, they were all upper-intermediate learners of English with a TOEIC score ranged from 800 to 990.

2. Materials

1) Sentence comprehension task for the pre-test and post test

Thirty-two pairs of sentences containing subject and direct object RCs were created, along with 64 filler sentences not containing relative clauses. In the experimental sentences, all the words in a given pair remained the same for both sentences: the only difference was the word order, as in sentences (a) and (b). The semantic bias of embedded verbs (e.g., *admired*) in all sentences was manipulated, such that two animate

nouns (e.g., *novelist* and *poet*) were reversible; for example as in sentences (a) and (b), it is semantically feasible that the poet could admire the novelist and vice versa.

(1) a. The novelist [that admired the poet] **wrote** two masterpieces last year.
b. The novelist [that the poet admired] **wrote** two masterpieces last year.

Each list for the pre-test and post-test contained 16 sentences containing 8 subject and 8 direct object RCs, along with 32 filler sentences; they included 16 conjoined sentences (e.g., *Todd questioned the teacher and left the classroom for another job*) and 16 bi-clausal sentences (e.g., *Sandra moved a cabinet because the office was crowded with chairs*). Thus, participants read 48 sentences in each test. After reading each sentence, participants were asked to answer a yes/no comprehension question based on the information of the previous sentence. The ratio of yes/no answers to the comprehension questions was counterbalanced.

2) Materials for the input session

In order to test the effect of frequency on learners' comprehension of less frequent patterns of sentences, two sets of sentence comprehension tasks were developed: one set for the Relative Clause group and the other for the Control group. The set for the Relative Clause group consisted of 64 sentences with subject RCs and 64 with direct object RCs, as in sentences (a) and (b), along with 64 fillers, syntactically complex sentences not containing relative clauses (e.g., *Unless a patient takes his medicine regularly, he is unlikely to make fast progress toward full recovery*.). Considering L2 learners' limited lexicon, the sentences were carefully designed to be comprehensible to the participants. The length of the subject and object RCs was variable.

3) Language proficiency test and language background questionnaire

The C-test [1] used in Schulz's (2006) dissertation was conducted to measure participants' relative English proficiency. The C-test used for this experiment consists of 40 items, each consisting of half of a word plus a blank (See Appendix A). All participants were asked to complete all the words within 10 minutes. The highest score

[1] A C-test is very similar to a Cloze test. The main difference between a C-test and a Cloze test is that the first half of a word is provided so that no complete words are missing. The C-test used for this experiment consisted of 40 items, each one comprising half of a word plus a blank. The highest possible score was 40. Participants who scored from 40 to 27 were classified as advanced, and those who scored from 28 to 16 were classified as intermediate.

was 40. They were then asked to complete a language background questionnaire (See Appendix B).

3. Procedure

Forty learners of English participated in four sessions on separate days (with a least three days between sessions), as seen in Table 1. Participants read 8 subject RCs and 8 direct object RCs with 32 fillers in Session 1 (the pre-test) and Session 4 (the post-test). All sentences were read word-by-word on a computer screen, and the reading was self-paced.[2] During Sessions 2 and 3, half the participants, who had been randomly assigned to the Relative Clause group, read 64 subject RCs and 64 direct object RCs, with 64 fillers. The other half, randomly assigned to the Control group, read 64 sentential complements and 64 conjoined sentences with 64 fillers. Participants were asked to read a sentence once and then answer a yes/no comprehension question based on the information in the sentence. All participants were given feedback on accuracy during the input sessions.

TABLE 1
Materials for Each Session

	Sessions			
Group	1	2	3	4
	Pre-test	Input	Input	Post-test
Relative Clause	Relative Clauses	32 SRs, 32 ORs, 32 Fillers	32 SRs, 32 ORs, 32 Fillers	Relative Clauses
Control	Relative Clauses	32 SCs, 32 CSs, 32 Fillers	32 SCs, 32 CSs, 32 Fillers	Relative Clauses

Note. SRs = subject relative clauses, ORs = object relative clauses, SCs = sentential complement sentences, CSs = conjoined sentences.

[2] The pre-test and the post-test were conducted on a computer running E-prime (Version 2.0). Each sentence was presented one region (i.e., word) at a time on the computer screen, left to right, in a noncumulative, moving-window manner as a participant pushed the space bar (Just, Carpenter, & Woolley, 1982). Participants were asked to read as naturally as possible and then answer a yes/no comprehension question to ensure that they had attended to the stimuli. All reading times for each word were recorded, along with responses to comprehension questions.

The C-test and language background questionnaire were conducted in the first sessions. When taking the C-test, participants were informed that they would be shown the first half of a number words and that they would be given 10 minutes to complete all the words. Following the C-test, they were asked to fill in the language background questionnaire. Each session took approximately 30 to 40 minutes. Information on participants' language backgrounds and English proficiency is shown in Table 2.

TABLE 2
Participants' Language Background and English Proficiency

Group	M:F ratio	Mean Age	C-test (40)	Length of Instruction in English (years)	TOEIC Score (990)
Relative Clause	3:14 (N=17)	21.45	22.29 (5.65)	9.76	862 (100.31)
Control	4:13 (N=17)	22.35	25.88 (5.94)	11.24	876 (86.69)

Note. Standard deviation is represented in parentheses.

IV. RESULTS

All participants in both groups successfully completed their respective input sessions (i.e., implicit learning): 93% of comprehension accuracy rate for the Relative Clause group and 90% for the Control group. Data from six participants (three in the Relative Clause group and three in the Control group) were excluded because of experimental errors; therefore, thirty-four participants' data were included in the analyses. Analyses were conducted on sentence comprehension task response accuracy and reading times as dependent measures. There was a significant difference between the two groups in their scores on the C-test ($p < .05$) and the length of the instruction in English they had received ($p < .05$) as in Table 2. Even though the Control group's proficiency was relatively higher, the participants in both groups were classified as high-intermediate L2 learners.

1. Comprehension Accuracy

Participants' mean accuracy rates on the comprehension questions for the subject RCs, direct object RCs, and filler sentences in the pre- and post-tests are shown in Table 3.

Both groups had accuracy rates for fillers of at least 90% during the test sessions, indicating that all participants attended to comprehension while doing the self-paced reading. In the pre-test, the two groups showed similar accuracy rates on subject and object RCs. The Control group's accuracy rates were higher on subject RCs than on object RCs, but the difference was not significant. On the other hand, the L2 learners in the Relative Clause group unexpectedly had high accuracy rates on both RC types on the pre-test. This situation indicates a ceiling effect, which might have been caused by their relatively high English proficiency. Nevertheless, both groups' results on the post-test showed a difference in their accuracy on the two types of RCs, especially the Control group, for whom the difference was marginally significant ($p < .07$), with higher accuracy rates on subject RCs than on object RCs.

TABLE 3

Mean Comprehension Accuracy Rates (Standard Deviation) on Pre- and Post-Tests: Relative Clause and Control Groups

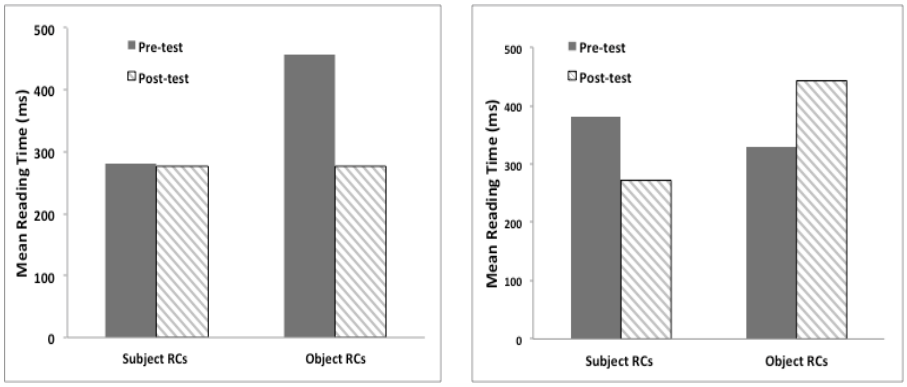
Group	Test Sessions					
	Pre-test (Session 1)			Post-test (Session 4)		
	Subject RCs	Object RCs	Fillers	Subject RCs	Object RCs	Fillers
Relative Clause	84% (0.15)	84% (0.14)	90% (0.04)	90% (0.11)	**87% (0.14)**	94% (0.04)
Control	87% (0.18)	81% (0.16)	88% (0.04)	88% (0.15)	**79% (0.18)**	95% (0.05)

To answer the first research question, this study looked at the difference in the participants' performance before and after the input sessions, in particular the two groups' comprehension accuracy rates on direct object RCs. As predicted, between the pre-test and the post-test, the Relative Clause group's accuracy on object RCs improved more than the Control group's, F (1,32) = 3.395, p = 0.07. This finding indicates that the additional input positively affected the participants' comprehension of the less frequent patterns of sentences (i.e., those with direct object RCs). It also implies that less frequent type of direct object RCs causes the relative difficulty of acquiring direct object RCs because the low frequency of direct object RCs is observed from language usage.

2. Reading Times

To answer the second research question, the data analysis focused on reading times at the main verb (e.g., *wrote* in (1b)). Crucially, the Relative Clause group's reading times

at the main verb were significantly faster in the post-test than in the pre-test for direct object relative clauses, according to a paired sample *t*-test, $t(33) = -6.164$, $p < .001$ (2-tailed), as shown in Figure (1a), but not for subject RCs; there was no difference in reading times at the main verb of subject RCs before and after the two input sessions. This result indicates that, as predicted, the input effect was significantly greater for object RCs than for subject RCs, even though participants were exposed to the same numbers of subject and object RCs during the input sessions.



(a) Relative Clause group (b) Control group

FIGURE 1 Mean Reading Times at the Main Verb *wrote*: Relative Clause Group and Control Group

As can be seen in Figure (1b), the Control group, which was exposed only to sentences not containing relative clauses, showed slower reading times at the main verbs for direct object RCs, but faster reading times for subject RCs from the pre-test to the post-test. However, in neither case was the difference significant. The finding, as in Figure (1a), indicates that the input frequency helps decreasing the speed of reading at the main verb, where demands processing cost and memory. It also provides the evidence to support Ellis' frequency-based accounts on L2 sentence comprehension.

V. DISCUSSION

The results from this study show that (1) L2 learners' comprehension of object relative clauses was improved after exposure to additional input, and (2) L2 learners' exposure to the additional input led to faster reading times at the main verb of object

relative clauses. Two important findings contribute to a possible explanation of the difficulty of comprehending direct object RCs. These findings also suggest a pedagogical implication for second language acquisition and L2 sentence comprehension. Let us consider each finding in turn.

First, results from this experiment show that L2 learners who are exposed to additional input improve their comprehension accuracy rate and decrease their reading time of object relative clauses. These results support the proposal that more reading experience helps learners' comprehension, in particular for less frequently experienced sentence types. Only a few prior studies have emphasized the role of reading experience in comprehending object relative clauses. For example, MacDonald and Christiansen (2002) argued that people who read more and thus had more experience of object relative clauses found it easier to comprehend object relative clauses than those who read less and thus had less experience of these structures. They hypothesized that it was this extra experience that led to better comprehension of object relative clauses. In other words, the amount of relevant reading experience was predicted to have a positive influence on comprehending object relative clauses. The results of the current study confirm that frequency effects are relevant to the difficulty of object RCs in second language comprehension, as they have been shown to be in L1 sentence comprehension by previous studies. Moreover, it can be concluded that not only English native speakers but also second language learners are sensitive to their previous linguistic experience in comprehending sentences, and hence remedial input can help them overcome frequency-related comprehension difficulties.

Second, these findings have potential implications for second language acquisition (SLA) in terms of classroom instructions and materials development. This study showed that even a small amount of reading experience (i.e., 128 relative clauses) improved L2 learners' comprehension after additional experience. This suggests that implicit, uninstructed learning (i.e., two input sessions) may facilitate successful acquisition, as in particular case of comprehending syntactically complex sentences. Long and Robinson (1998) discussed a number of experimental studies that have compared the effect of implicit and explicit teaching; that is, explicit teaching is better for simple rules than implicit teaching is. Even though there is very little empirical evidence in second language learning in favor of implicit leaning, teachers could reconsider the effectiveness of implicit learning on language teaching in a classroom setting. Moreover, the amount of input does not matter, but the relevance of input in language learning does matter in teaching-learning conditions. For example, L2 learners who are additionally exposed to less frequent patterns of the right type might learn those patterns relatively easier, faster than those who are exposed to irrelevant input, as in the results of this study. This may help teachers to develop teaching materials for improving L2 learners'

performance.

VI. CONCLUSION

This study examined the effect of additional input on L2 learners' comprehension of object relative clauses. The findings showed that the Relative Clause group's reading times at the main verb of relative clauses significantly decreased from the pre-test to the post-test (Figure (1a)). In addition, the Relative Clause group improved their accuracy rates on the object relative clauses, while the Control group did not. The overall results provide a possible explanation of the difficulty of comprehending direct object relative clauses. (See Wells et al., 2009).

These findings also have pedagogical implications for second language comprehension and acquisition. Understanding the relation between L2 sentence comprehension and additional input based on the amount of reading experience may contribute to classroom instruction and materials development, bridging theory and practice. Of course, frequency is not the only factor in learning language, but its role in successful comprehension and acquisition by L2 learners should be reconsidered.

While the findings of this study have shed light on another factor (i.e., frequency) to affect the processing and acquisition of direct object RCs, the question still remains. Further investigation is necessary to examine how less proficient learners comprehend direct object RCs before and after the exposure of relevant input. Moreover, a follow-up study that parallels the methodology of this experiment is necessary to examine the correlation between the degree of frequency effect on L2 sentence comprehension and English proficiency. If that were the case, it would be interesting to see the different sensitivity of input frequency between advanced and intermediate learners.

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APPENDIX A
C-TEST

On this page you will find 2 small texts in total. Each text containing gaps where parts of some words have been left out (no whole words are missing, though). In the blanks provided, please complete words so that the sentences and texts make sense. Note that in each blank, you should only complete one word; do not add extra words. Please compete this within 10 minutes.

Text 1

We all live with other people's expectations of us. These are a refle_____ of th_____ trying to under____ us; th_____ are predic_____ of wh____ they th___ we will think, d____ and feel. Gene_____ we acc__ the sta____ quo, but these expec____ can be ha__ to han____ when they co____ from our fami____ and can be diff____ to ign_____ , especially wh_____ they come from our par____ .

Text 2

The decision to remove soft drinks from elementary and junior high school vending machines is a step in the right direction to helping children make better choices when it comes to what they eat and drink. Childhood obe_____ has bec_____ a ser_____problem in th_____ country a_____ children cons_____more sugar-based fo_____ and sp_____ less ti____ getting the nece_____ exercise. Many par_____ have quest_____ schools' deci_____ to al_____ vending machines which disp____ candy and so_____ drinks. Many schools, tho_____ , have co_____ to re_____ on the mo_____ these machines generate through agreements with the companies which makes soft drinks and junk food.

APPENDIX B
Language Background Questionnaire

The questions below are intended to help us learn about your language learning experience. Your personal information will be kept confidential, and all other information will be used for research purposes only. Please read and answer all the following questions carefully. Use the blank space beside each question to clarify answers.

Name: _____(Gender: Female/Male)
Home Country: _____
Age: _____

Major: _____
Email address: _____

1. At what age did you begin to study English? _____
2. How many years of school instruction of English did you receive?
(Please specify the total length _____ year(s)
3. How many years of English grammar have you learned?
(Please specify the total length _____ year(s)
4. How long have you lived in a place or places where English was/is the first language of communication?
Please specify the total length _____ year(s)
5. Approximately how many hours a day do you use English? (Please specify) _____ hours
6. Please rate your English listening, speaking, writing, and reading abilities by circling a number on the 6-point scales below:

Listening: 1----------2----------3----------4----------5----------6
(beginning)(lower intermediate)(intermediate) (upper intermediate) (advanced)(near native)

Speaking: 1----------2----------3----------4----------5----------6
(beginning)(lower intermediate)(intermediate) (upper intermediate) (advanced)(near native)

Reading: 1----------2----------3----------4----------5----------6
(beginning)(lower intermediate)(intermediate) (upper intermediate) (advanced)(near native)

Writing: 1----------2----------3----------4----------5----------6
(beginning)(lower intermediate)(intermediate) (upper intermediate) (advanced)(near native)

7. Please rate your overall English proficiency by circling a number on the 6-point scales below:

Overall: 1----------2----------3----------4----------5----------6
(beginning)(lower intermediate)(intermediate) (upper intermediate) (advanced)(near native)

8. If you have any official score of English proficiency test, please report them.

TOEIC _____ When: _____

TOEFL_____ When: _____

TEPS_____ When:_____

Examples in: English
Applicable Languages: English
Applicable Levels: Tertiary

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