

Comparing the Effects of Practicing Explicit and Implicit Questions on Iranian Intermediate EFL Learners' Reading Comprehension Performance

Mohammad Taghi Hassani
Imam Hossein University, Tehran, Iran;
Islamic Azad University, Takestan Branch, Iran

Bahador Sadeghi
English Department, Islamic Azad University, Takestan Branch, Takestan, Iran

Azadeh khalilolahi
English Department, Islamic Azad University, Takestan Branch, Takestan, Iran

Abstract—The importance of reading comprehension as one of the key language learning skills is known to anybody engaged in language learning and teaching. However, an inclusive comprehension of a text requires mastery of different reading sub-skills including not only the explicit meaning of the text but also its implicit meaning. Whether the students who receive implicit questions after reading a text have better reading comprehension or those who receive explicit questions has been the main question to get verified across Iranian University students. As such, a general proficiency test made by Oxford University Press and the University of Cambridge Local Examination Syndicate was administered to 90 General English students of both genders majoring in various courses of study in Tafresh Azad University, and a homogenised selection of 60 were put randomly into two classes to serve as participants. Then, ten reading passages from the book *Select Readings Intermediate* were selected and two sets of items were developed; explicit items were practiced in one class and implicit ones in another. Finally, a post-test of reading comprehension including forty multiple-choice items of both types was used to verify any impact from the instruction. It was concluded that practice with either type of items results in similar levels of comprehension.

Index Terms—reading comprehension, reading comprehension questions, explicit questions, implicit questions

I. INTRODUCTION

People read to get something from text whether facts, ideas, enjoyment, or feelings (Nuttall, 2005). For whatever purpose they read. They naturally try to search for meaning in what they read (Grasser, Singer, & Trabasso, 1994), and meaning is constructed through readers' active cognitive interaction with the text (Nuttall, 2005). This active involvement of readers in the construction of meaning is reflected in their use of not only linguistic knowledge, but also background knowledge, world knowledge, personal experiences, and inferences during reading (Grabe & Stoler, 2002). As meaning is not fixed in the text, but is created in the active interaction of readers with the text, the readers' contribution to the construction of meaning is a key aspect of reading comprehension. In other words, the end product of reading comprehension is in part the result of linguistic and conceptual knowledge as well as the experiences that readers have accumulated in their life.

Therefore, reading comprehension is, in a sense, a process in which readers project their life onto what they read and elaborate text information based on their background knowledge and experiences, both of which allow them to generate knowledge-based inferences (Grasser & Kreuz, 1993). However, because experiences vary from person to person, the understanding of the same text can differ from reader to reader. This is particularly the case with the meanings that readers produce when they read in order to gain more than a literal understanding of the text information. However, in foreign language classes, too much emphasis is still placed on linguistic aspects of the text and on fixed interpretation of words, phrases, or sentences. In this process of comprehension, information flows primarily from the text into the mind of the readers, as the bottom-up processing of text information is emphasized. The result of this approach to reading is that different readers arrive at more or less the same conclusion concerning text meaning. This approach to reading is far from the interactive way that skilled readers use when creating meaning.

One way to alter this heavily bottom-up approach to teaching is through the effective use of reading questions, as they can provide a good alternative to the traditional grammar translation method in which readers depend excessively on bottom-up processing. Reading questions can be manipulated so that they encourage students to read the way that teachers want them to (Chikalanga, 1991); hence, reading questions aimed at stimulating readers to read for more than a literal understanding can lead the readers to make use of their background knowledge, and to engage in greater amounts

of inferencing (Day & Park, 2005) as they depend more on top-down processing for creating meaning. Reading questions can help foster active involvement with the text and encourage the readers to read for meaning independently and in an interactive way. It is clear from research that all students need instruction in reading comprehension, especially the kind that focuses on the strategies required to answer various forms of questions including text explicit and text implicit items (Taylor, Pearson, Peterson & Rodriguez, 2003 cited in Raphael & Au, 2005). Reading comprehension instruction helps ensure that all types of questions follow reading passages and there will not be the usual over-emphasis of lower-level skills and questions that only require students to spot and recall information; questions which ask for inference are also significant to understanding any text and even the simplest text requires thoughtful analysis. It is the process in which everybody engages as s/he tries to solve the problems at hand and specifically to make sense of what s/he reads. It seems that readers have problem in connecting elements of the text together and, as a result, fail to get the theme and main idea of the text. This is the problem which has afflicted most of the Iranian EFL learners. The present study is an attempt to investigate the effect of these item types on comprehension of reading texts among Intermediate EFL learners.

II. LITERATURE REVIEW

A. Reading Comprehension

In the past, reading comprehension was viewed as process of mastery of decoding (Dole, 2000 as cited in van Keer C & Verheghe, 2005). However, research has shown that good reading is characterized by more than just decoding and that reading comprehension involves the reader's active engagement in meaning construction (Anderson, Hiebert, Scott, & Wilkinson, 1985; Snow 2001). Yang (2002) defines reading comprehension as an active, dynamic, and developing process of looking for interrelations between elements of the text.

Different types of comprehension are differentiated from one another in different ways. According to Richards and Schmidt (2002) four types of comprehension are differentiated from one another based on the reader's purpose of reading and the type of reading applied. They include **literal comprehension-** reading with the purpose of understanding, remembering, or recalling the information explicitly stated in the text; **inferential comprehension-** reading for discovering the information implied in the text through experience and intuition, and inferring or inferencing; **critical or evaluative comprehension-** reading in order to compare information in a passage with the reader's own knowledge and values; and **appreciative comprehension-** reading in order to gain an emotional or other kind of valued response from a passage. Therefore, reading comprehension is not limited to simply decoding words but includes comprehending the text through all types of thinking, questioning and evaluating.

B. Mental Processes Involved in Reading Comprehension

Understanding the processes involved in reading comprehension is an essential part of studies related to this skill. Grabe and Stoller (2002) have identified two common underlying processes that are activated in reading: lower-level and higher-level processes.

According to these researchers lower-level processes concern linguistic processes that occur relatively automatically in proficient readers. When words are read, their meanings are accessed, and their grammatical functions are extracted via syntactic parsing. Then based on the combination of the semantic information and the grammatically analyzed information, the most logical propositions are formed (semantic proposition formation).

The higher-level processes, which include comprehension and knowledge processes, critically involve readers' background knowledge. This combination allows inferencing to take on an important role.

An appropriate understanding of these processes involving the combination and integration of various sources of knowledge including both lower-level and higher-level knowledge sources that occur during skilled reading can provide teachers with a grasp of the role that students need to play when reading (Brich, 2007).

C. Reading Comprehension Questions

Reading tasks can be manipulated as a pedagogical alternative to encourage students to read the way the teachers want them to (Chikalanga, 1991). For example, tasks that activate students' use of background knowledge and inferences can lead them to interact with the text and thus to create a personalized interpretation of text meaning (Day & Park, 2005). One common type of reading task involves the use of questions.

D. Inferencing

All humans engage in inferencing from early childhood to interpret the events in their environment and people infer others' actions, attitudes, and intentions almost automatically. Making inference is not just a skill we use while reading a text, rather it is one of the most important cognitive mechanisms that connect what we are attempting to understand with our background knowledge (Grabe, 2009, p. 68).

A text includes more information than the explicitly stated ones; comprehending a text requires the integration of the explicit information with those implied by the writer and with reader's previous or background knowledge (McKoon & Ratcliff, 1992; Vonk & Noordman, 1990). When reading a passage, the reader needs to bring to the surface those parts of the information which are left implicit and to activate the related information in memory form a unified mental

representation of the text through the generation of inferences. As put forward by Baretta, Tomitch, MacNair, Lim, and Waldie (2009) "in order to form a unified representation of a given text, a reader must be able to join the information presented in the text with his/ her background knowledge to construe the meaning that may not be explicitly stated, through the generation of inferences" (p. 137). In other words, representation of the text contains both the information that is explicitly stated by the text, and inferences that readers draw from the text.

Chikalanga (1992) explains that a reading text can never be totally explicit because writers do not explicitly state all the things a reader needs to know to comprehend a text. In order to make sense of a text, readers must be able to make inferences and fill in conceptual gaps. She defines 'inference' as the cognitive process a reader goes through to get the implicit meaning of a written text by connecting text information and background knowledge. However, it plays a crucial role in reading comprehension.

Inferencing is at the heart of the comprehension process. This is the process in which listeners and readers are constantly and extensively involved as they try to make a comprehensive representation of what they are reading or listening to in order to fill in the details omitted from the text. Therefore, a second language reader, to be said to have comprehended a text or sentence, must also have drawn correct inferences from it, but readers' ability to get the message from a piece of writing, especially the ability to infer meaning, has not been adequately developed, despite allocating much time to teaching reading (Kazuo & Akiko, 2000).

Inferencing is considered as a central component of skilled reading which helps readers to make sense of what they read by taking them beyond the text and, in this way, assists them in coming to the information which has been left implicit by the writer. The inferencing process is of great importance to readers because it enables them to form a representation of the meaning of the text in their mind based on the text's coherence relations and their own general knowledge. The role of inference in making explicit the information left implicit is very essential for text understanding, because no text can include all information needed to understand the sense of a story. No text can be written, if it has to "include all information it deals with; if there was no such thing like inferencing or if it was not automatically done by our brain" (Wikibooks Contributors, 2004-6, p. 118).

III. OBJECTIVE OF THE STUDY

This study is an attempt to examine the intermediate Iranian EFL learners' ability in dealing with explicit and implicit comprehension items in order to verify their impacts on the level of reading comprehension.

IV. RESEARCH QUESTION

Q1: Is there any significant difference between reading comprehension performance of Iranian Intermediate EFL learners who receive explicit reading comprehension questions and those who receive implicit reading comprehension questions?

V. METHOD

A. Participants

In order to conduct this study a total of 90 General English students majoring in various courses of study in Tafresh Azad University took part in the proficiency test of the research; later, 60 participants who scored within one standard deviation from the mean of performance were chosen as the subjects in the study. These male and female subjects formed two classes of 30 students. Of these learners 13 were first-semester freshmen, 36 were second-semester freshmen, 7 were first-semester sophomores, 3 was first-semester junior, and 1 second-semester senior. Their age ranged from 19 to 37 and they were generally in the intermediate level of proficiency. On the whole, 60 were included in the study (26 male and 34 female).

B. Instruments

To collect the necessary data three tests were used:

1. A General English Proficiency test (quick placement test, 2001)
2. Reading passages with implicit and explicit items as teaching materials
3. A reading comprehension test used for the post-test

C. Procedure

In order to conduct the research a homogenised sample of participants was needed to receive the prospective treatment. It was provided by a colleague who taught General English classes in Azad University of Tafresh and could fulfill the requirements of the work. The classes he conducted contained a total of 90 students. The proficiency test as described above was performed to homogenise the intended participants. Those who scored within one standard deviation from the mean of proficiency were identified and distributed across the two classes randomly; these subjects' performances were intentionally observed and recorded while the remaining members of the classes did their activities normally. Later, with the help from the teacher ten lessons were taken from Select Readings Intermediate textbook that was taught ordinarily in the course of classroom instruction, and 10 implicit and 10 explicit multiple-choice questions

were designed per lesson. Some of the questions were given in the book and some others were constructed; they were all shown to other faculty members of the University for validation. During the ten subsequent sessions of practice one class was given the implicit set of items and the other the explicit one quickly after working with the passages. The participants' answers were graded and the mean scores of group performances were obtained. Finally, the post-test material was administered. The results of performance on this test, totally and by item type, were put into t test formula to evaluate the significance of any possible mean differences. The statistical tables and the output of the software are presented in the next chapter. Moreover, the detail of the tests and samples of performance are included in the appendix section.

VI. RESULTS

For the purpose of this research, 90 intermediate students took part in the proficiency test. This test was used to homogenize the participants required for this study and the mean score of the participants was used as the criterion for selection. Table 4.1. shows the mean and the standard deviation of the proficiency scores and Figure 4.1. depicts the normal curve for the mean of the proficiency test.

TABLE 4.1.
DESCRIPTIVE STATISTICS FOR THE PROFICIENCY TEST SCORES

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
proficiency	90	7.00	45.00	21.6778	8.66198
Valid N (listwise)	90				

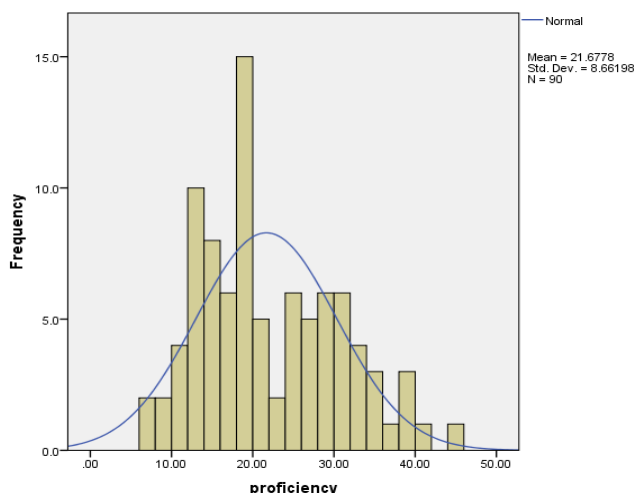


Figure 4.1.: Normal curve for the mean of the proficiency test

Based on the data, students who achieved between one standard deviation above and below the mean were chosen as the main subjects of the research. Then the subjects were randomly divided into two experimental groups. One group was set to receive practice in items dealing with explicit comprehension of reading passages. Another group was given implicit items to cover when reading comprehension. At the end of the instruction period, learners in both groups took a post-test of reading comprehension including equal number of explicit and implicit items. Later, the group performances were put into the independent t test to verify the significance of any mean difference across the groups based on the explicit or the implicit sets of items in the post-test.

Investigation of the research question

The question of this research is presented in the following form:

Q1: Is there any significant difference between reading comprehension performance of Iranian Intermediate EFL learners who receive explicit reading comprehension questions and those who receive implicit reading comprehension questions?

In order to compare the participants' performance on the post-test of reading comprehension and the two sets of explicit and implicit items, independent t test formula has been performed on the obtained scores of both groups. The group statistics (mean and standard deviation) are presented in Table 4.2. and the results of the t tests are given in the Table 4.3. Table 4.2. shows that the groups means are different but nearly the same across the two groups. According to Table 4.3. the comparison of the groups' performance on the post-test of reading comprehension reveals no significant difference between the groups (the obtained significance value is larger than the standard alpha ($p=0.572 > \alpha=0.05$)). Moreover, there is no significant difference found between the subsection of explicit items in the post-test of both groups ($p=0.641 > \alpha=0.05$). This is also true for the implicit items as $p=0.606 > \alpha=0.05$. Therefore, it can be said that the difference between performances is mostly due to other factors rather than the nature of the treatment and the items.

TABLE 4.2.:
MEAN AND STANDARD DEVIATION FOR THE POST-TEST OF GROUPS

Group Statistics					
	group	N	Mean	Std. Deviation	Std. Error Mean
post	1.00	30	21.4354	7.10358	1.29693
	2.00	30	20.5333	6.51620	1.18969
postexplicit	1.00	30	11.7182	4.23396	.77301
	2.00	30	11.2501	4.02307	.73451
postimplicit	1.00	30	9.7000	3.66860	.66979
	2.00	30	9.2000	3.80018	.69382

Table 4.3.:
T-tests for the post-test of groups

Independent Samples Test				
		groups post	groupspost explicit	groupspost implicit
Levene's Test for Equality of Variances	F	.709	.048	.072
	Sig.	.403	.827	.789
t-test for Equality of Means	t	.568	.469	.518
	df	58	58	58
	Sig. (2-tailed)	.572	.641	.606
	Mean Difference	1.00000	.50000	.50000
	Std. Error Difference	1.75994	1.06633	.96437
95% Confidence Interval of the Difference	Lower	-2.52291	-1.63448	-1.43039
	Upper	4.52291	2.63448	2.43039

VII. DISCUSSIONS AND CONCLUSIONS

Reading comprehension is regarded as one of the basic language skills and research on reading, especially foreign/second language reading is noticeably increased in recent years. As a complex skill reading consists of several sub-skills/skills and the ability to cover explicit and implicit items is considered as a sub-skill of reading comprehension (Johnson and Johnson, 1998).

Accordingly, learners gain practice in both areas; however, despite explicit questions which require focus on the text and are highly dependent on bottom-up processing the ability to answer implicit questions and to generate inference necessitate development in reading comprehension ability to flourish this significant part of the comprehension process (Anderson and Pearson, 1984 cited in Davoudi, 2005). So, comprehending a text depends largely on making correct related inferences. As Carrell, (1984, p. 2) states, "... the process of comprehending a text is, at least partially the process of drawing correct inferences". Cain et al (2001) investigating the relation between young children's comprehension skill and inference-making ability also, found a strong relation between young children's comprehension skill and the ability to get the implicit meanings even when background knowledge was equally available to all participants and learners were taught the related background knowledge beforehand.

The focus of the research question of the present study was investigating the different effects of explicit and implicit questions on EFL learners' reading comprehension and verifying whether learners who receive implicit questions after reading a text have better reading comprehension or those who receive explicit questions. With this in mind, two groups of university students from variety of fields were selected randomly out of the participants within one standard deviation above and below the mean score of a proficiency test. The normality of the participants' performance on the proficiency test is presented in figure 4.1. One of those groups, group one, composed of 15 girls and 15 boys, was given ten sessions of practice in reading passages from their coursebook and then were asked to answer explicit questions which had been designed specifically to trigger their focus on explicitly stated pieces of information. In addition, group two included 19 females and 11 males who received practice in inference skill and getting implicit items answered. The t test conducted on the post-tests shows no significance difference across the groups; thus, the hypothesis of the research is accepted.

Generally, in order to verify the hypothesis of the research it was concluded that practice with neither explicit nor implicit item types would result in a significant improvement in reading comprehension. In fact, if there were any effect of the instruction on level of comprehension it would generally be the same for both types of items. Regarding answering the research question it was strongly claimed that the practice with the type of items could not significantly make distinction between groups of subjects trying to comprehend reading passages. Thus, teachers can follow the normal practice of understanding; they should also avoid too much emphasis on specific types of items but to incorporate both in the tests.

VIII. IMPLICATIONS

- a) Test-makers are required to include both explicit and implicit types of items in their tests of reading comprehension to help learners prove their own true abilities.
- b) Teachers can test-wise their learners but they are not needed to over-emphasise practicing specific item types and skills; they should be fair in practice.
- c) Students are advised to spend time on getting both the implicit and the explicit meanings and covering all the related items instead of overindulgence with one type of items.

IX. SUGGESTIONS FOR FURTHER RESEARCH

- a) Other researches are recommended to be conducted on the effect of practice with items of the different levels of implication on the learner's reading comprehension capacity.
- b) Learners of other levels of education especially high-school students are said to be taken as participants in similar researches.
- c) This research can be redone with only one gender to produce much more accurate and salient results concerning the impact of item types on reading comprehension of that gender as a control variable

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Mohammad Taghi Hassani, assistant professor in TEFL at Imam Hossein University, Tehran and Islamic Azad University, Takestan Branch, Iran. His research interests are EFL writing, psycholinguistics, phonetics, contrastive analysis, English for Specific Purposes, and language teaching methodology.

Bahador Sadeghi, an assistant professor of Applied Linguistics holds a doctorate degree in TEFL from the University of Isfahan, Iran. He also holds three MAs in TEFL, English Translation and International Relations from Tehran Islamic Azad University, Isfahan University and Allameh Tabatabai University respectively. He has been lecturing different subjects in TEFL, Translation studies, General English and ESP at several universities in Iran for the last twenty years. He has both published and presented a number of articles in some international journals and conferences. He has translated twenty books from English to Persian. He is also a certified translator to the judiciary power in Iran and he has been, as a simultaneous interpreter, actively involved in many national and international seminars, sport events and tourism projects.

Azadeh khalilolahi received his BA in 2007 and MA in 2014 in TEFL from the Department of English Language at Islamic Azad University of Takestan. He is currently teaching English at private schools and high schools in Kermanshah, Iran. Her area of interest includes language teaching and learning techniques and strategies.