

## How to present cultural schemata to get the best result of instruction:

### Assessing two pre-reading forms

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**Abstract.** Assessing whether learners can make active use of relevant schemata is an integral feature of L2 reading instruction. Probed in the present research is the effect of two forms of pre-reading cultural information on comprehension. 117 (68 male and 39 female) students participated in this study. They were assigned to three parallel groups based on a proficiency test. Two texts about a foreign culture were given to each group one of which was the control group. The schemata were rendered to each of the other two groups either in form of summary or pre-questions. Gender was considered as an independent variable. Results of ANOVA indicated that both treatments facilitated comprehension. However, only summary group performed better than the control significantly. Female students outperformed male students but not significantly. The results are discussed in relation to the use of pre-reading in L2 comprehension development.

**Keywords:** schemata, pre-reading, assessment, summary, pre-question

## 1. Introduction

Being used in a wide sense, the term pre-reading refers to any text-related activity in which learners are engaged prior to main text reading. This may vary from prediction activities based on text title or a selective sampling of textual information (e.g. sub-headings, illustrations or a skim read) to a complex and relatively self-contained conceptual activity related to the thematic or rhetorical development of the target text (Abbs, Cook, & Underwood, 1981). According to Carrell (1987), to put it simply, pre-reading activities may be categorized along two main axes. The first relates to the type of schemata which are activated that might be content or formal, the former relating to the subject matter of the target text and the latter to its rhetorical organization. The second axis is what may be referred to as open pre-reading activities and bears upon whether pre-reading primarily provides information (in the form of summary, overview or illustrations) or elicits a personal contribution from the reader (in the form of prediction of text content, personal reactions to a topic). In practice, these two forms may clearly merge i.e. pre-reading both providing information and eliciting a response. The distinction nonetheless serves to identify the ends of a continuum along which most pre-reading activities may be placed.

The growing body of research in L2 reading comprehension indicates that the text-relevant background knowledge or schemata which L2 readers bring with them to the processing of text in language has a significant effect on their ability to process and derive information from this material (Langer, 1984; Richards, 1984; Carrell, 1983 & Stevens, 1980). Furthermore, it has been observed that familiarity with the cultural background (Alptekin, 2006; Erwin, 1993; Erwin, 1992; Aron, 1986; Barnitz, 1986) and content (Keshavarz, Atai, & Ahmadi, 2007) can facilitate processing and comprehension of these materials by L2 learners. The comprehension of L2 learners may also be ameliorated by explicit pre-instruction in the cultural background (Floyd & Carrell, 1987; Waley & Spiegel, 1982).

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Assessing whether learners possess and are able to make active use of the relevant schemata is thus an integral feature of L2 reading instruction. This means that L2 reading instructors may need to act as facilitators for the acquisition of the relevant cultural schemata if these are not held by learners, or, if they are, to ensure that the learners make active use of them in their text processing (Floyd & Carrell, 1987). But care should be taken as while prior knowledge generally has had positive effects on students' performance, the effects varied by assessment method (Dochy, Segers, & Buehl, 1999). More specifically prior knowledge was more likely to have negative or no effect on performance when flawed assessment measure was used. One of the main means of attaining this goal is through the use of appropriately designed preparatory or pre-reading activities.

Only a limited number of studies have examined the effect of externally induced schemata in the form of pre-reading activities on L2 reading comprehension. Huang (2006) examined the effect of different forms of pre-reading activities on text comprehension. In his study he used three types of pre-reading materials: vocabulary list, self-appraisal and case study. Self-appraisal type of pre-reading is perceptual in nature and the case study was for inquiry arousal. These had facilitative effect on motivating learners to read and assisting them to understand rather than to decode the texts. Molner (1989) showed that Pre-Reading Plan (PReP) treatment didn't affect free and probed recall scores obtained immediately after reading but did significantly impact scores on a topic-specific knowledge measure administered after a one-week delay. Spencer (1988) through his research indicated that pre-reading helped higher literal comprehension. Tudor (1988) investigated the effect of two forms of pre-reading (pre-question and summary) and their interaction with the level of the subjects. The results showed that both treatments produced comprehension facilitation with lower proficiency groups but not with more advanced group.

The present article reports on an experiment which examines the effect of two forms of content-schemata oriented pre-reading on the text comprehension of L2 learners. While the two forms of pre-reading have a lot in common, they differ in the nature of the response they require. One provides information in the form of a text summary; the other elicits a personal response from subjects by questions; additionally, of particular interest was whether there would be difference between girls and boys.

## 2. Method

To obtain the aforementioned purpose 117 (68 female, 39 male) EFL students participated in this study. They all majored in English Language and Literature and were passing reading course as part of their BA program. Two texts with foreign culture contents were used in this experiment. The first passage had five questions and the second passage, four questions, all in the form of multiple-choice. Two forms of pre-reading were employed one of which provides a summary or over-view of the content of the main sub-topics in each text and the other one, pre-questions, elicits a response from the subjects on the basis of a set of questions, each pertaining to one of the sub-topics of the text. The two forms of the pre-reading differed, however, in the nature of the assistance they offer: summary, a constrained form of pre-reading, provides information, while pre-questions, an open form, elicits a response and thus allows subjects more freedom in terms of their schemata activation. The pre-reading materials were written in the same language as the texts, that was English. Based on a proficiency test, participants were assigned to one of the experimental conditions homogenously\_ the summary group, which received the two summary forms of pre-reading; the pre-questions group, which received the two sets of pre-questions, and the control group, which received only the passage.

## 3. Results

ANOVA was applied to the combined results of the two texts to determine the effect of treatment and gender interaction. Descriptive statistics is presented in table 1 and table 2 shows the ANOVA result for different forms of pre-reading.

QTYPE	gender	Mean	Std. Deviation	N
summary	female	5.84	1.37	25
	male	5.58	1.83	12
	Total	5.75	1.51	37

Pre-question	female	5.76	1.30	25
	male	5.00	2.32	14
	Total	5.48	1.74	39
control	female	5.22	1.89	18
	male	3.92	1.89	13
	Total	4.67	1.97	31
Total	female	5.64	1.50	68
	male	4.82	2.10	39
	Total	5.34	1.78	107

Table1: Descriptive statistics

(I) QTYPE	(J) QTYPE	Mean Difference (I-J)	Sig.
summary	Pre-question	.2696	.773
	control	1.0793(*)	.030
Pre-question	summary	-.2696	.773
	control	.8098	.127
control	summary	-1.0793(*)	.030
	Pre-question	-.8098	.127

Table 2: ANOVA results for the two forms of pre-reading

Results showed that summary form was more facilitative and the difference of scores between summary group and control group was significant at 0.05. Though pre-question treatment was facilitative as well, the difference of scores between pre-question group and control group was not significant. Furthermore, there is no evidence of a differential effect of the two pre-reading formats in relation to gender. That is, although female students scored higher than boys, the difference was not significant.

#### 4. Discussion and implications

Brought up by the results is that only the summary form of pre-reading facilitated comprehension significantly. The rationale for it may be the students' level of proficiency. As is believed by Hudson (1982) and Tudor (1986, 1988) more advanced students derived overall less assistance from the pre-reading formats provided as texts were accessible to students linguistically, so the pre-reading material was somehow superfluous with respect to linguistic aspect. It just gave them an idea of what might follow and hence activate mostly their content schemata rather than their formal schemata. Pre-readings were constructed primarily in content terms, in that they were geared to activate subjects' background knowledge and expectations relating to the content rather than the formal characteristics of the target texts. However, only the summary format provided assistance with the processing of the target texts in structural terms. The facilitative effects observed may thus reflect a combination of both content and formal assistance, even if both formats were geared primarily to the former. Furthermore, by being constraint, the summary form provided a clearer perspective compared to the pre-question form that was open.

This study provides a degree of experimental support for the contention that it is possible to enhance the text comprehension of L2 learners by means of externally provided pre-reading activities which may in turn be seen as offering some support to the currently widespread use of pre-reading in L2 reading materials. Furthermore in the present study at least, it would appear that a more constrained, information-provision oriented form of pre-reading is slightly more powerful than one geared to personal-response elicitation. Naturally, these conclusions emerge from a single study, and it would be unwise to overlook the limitations of examining with only two texts, a reading-related activity which cannot exactly be equated with normal reading behavior i.e. the use of the multiple choice procedure, possible overlap of content and formal assistant modes in the pre-reading formats employed, and the exam session conditions. Further experimentation is clearly required by the whole area of pre-reading, though a number of specific points of interest emerge from the present study.

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