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ABSTRACT

Literature relating summarization skills to reading improvement and to test score gains is reviewed, and two new studies are reported. One study compared gain on the Test of English as a Foreign Language (TOEFL) of two groups of students, one (n=7 students) receiving instruction in summarizing skills and the other (n=14) receiving TOEFL preparation from commercially prepared TOEFL materials. Results show the groups instructed in summarizing gained an average of 7 points, and the other group gained 15 points, on average, a statistically insignificant difference. The second study compared TOEFL score gains of two additional groups of English-as-a-Second-Language (ESL) students who had been in ESL classes in the United States for 9 months. One group (n=61) reported using summarization skills in class; the other (n=25) reported never using them. Over the 9 months of ESL study, the group using summarization skills had an average TOEFL score gain of 61 points, and the other group's gain averaged 42 points. Contains 22 references. (MSE)

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The Relationship Between Summarization Skills and TOEFL Scores

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## Abstract

Literature relating summarizing skills to reading improvement as well as to test score gains is discussed. Two research studies are reported. One study compared TOEFL gain scores of two groups of ESL students. One group had received instruction in summarizing skills; the other group had received TOEFL preparation from commercially prepared TOEFL prep materials. Both groups were tested after a six-week instructional period. The second study compared the TOEFL gain scores of two other groups of ESL students. Prior to taking TOEFL, seventy-six ESL students responded to a survey prepared by the researchers. The purpose of the survey was to assess students' knowledge about and use of summarization skills. The students were divided into groups--those who sometimes summarized to help themselves understand class assignments and those who never summarized. The TOEFL gain scores of the two groups were compared.

## Background

The relationship between summary writing and reading comprehension and retention has long been explored, developed, and articulated by cognitive psychologists ( Craik & Lockhart, 1972; Guido & Colwell, 1987; Squire, 1983; Stotsky, 1982). They claimed that when doing summary writing, students are required to review and reconsider the printed material, and to rephrase the author's original meaning in their own words. They have to sift out relevant information from irrelevant, make logical connections, and combine selected information to produce an accurate, more precise, even clearer statement of the author's message (Bermudz and Prater, 1988; Shugarman and Hurst, 1986). Such a process engages the learners actively in reprocessing and recreating the textual information, develops the mental activities of the learner to organize the reading materials in meaningful ways, and promotes their critical reading and comprehension (Bromley & McKeveny, 1986; Guido & Colwell, 1987; Stotsky, 1982).

While cognitive psychologists have described the cognitive operations of the learner in the learning process to justify the use of summary writing in reading comprehension enhancement, information theorists have argued the effectiveness of summary writing on reading comprehension and retention from the perspective of depths of information processing. Unlike surface level processing which undertakes perceptual analysis of physical or sensory characteristics, deep level processing concentrates on the underlying meaning of the material being learned, focuses on the content as a whole, and tries to see the connection between different parts (Watkins, 1983). Greater depth of processing implies greater degree of semantic and cognitive analysis and ensures that materials can be more efficiently handled and higher level of retention can result (Craik & Lockhart, 1972; Gagne, 1978; Jacoby, Craik, and Begg, 1979). Since known and retrieval information form a basis for comprehension, retention is seen as an essential component in reading. The amount of attention devoted to aspects of passage, the processing time available, and the extent of elaboration and generation of the textual information will determine the preciseness of perceptual description, the recall probability, and the memorability.

Numerous studies on both native and non-native English speakers with an educational training ranging from elementary to college have proved the effectiveness of summary writing on learners' reading comprehension and retention. Taylor (1982) claimed that a hierarchical summary procedure helped middle grade students' reading comprehension and recall. Annis' studies (1986) on college students found that students who wrote paragraph summaries scored higher on the comprehension section of the Nelson-Denny Reading Test than did those students who read or took notes. Watkins (1983) found from his research on tertiary students a strong relationship between depth of processing

and quality of students' learning outcomes; it was postulated that this was because deep-level processing had students focus their attention on the content on as a whole to try to see the connection between the parts. Charry's pilot experiment (1987) on community college students yielded the same result--improvement in reading comprehension and recall. The study made by Nelson et al. (1992) on elementary-age urban minority students found that learning strategies using summarization skills produced clear improvement in comprehension of science texts. Studies undertaken on middle school students with learning disabilities also reported a significant increase in reading comprehension (Gajria & Salvia, 1992; Malone & Mastropieri, 1992; Rinehart et al., 1986). Amuchie (1983) indicated that training in rules of summary writing is a viable strategy to enhance the reading comprehension of English texts by bilingual elementary school children. Studies on bilingual middle and secondary school students concluded that summary writing incorporated with the identification of main ideas had positive impact on comprehension and retention scores. (Bermudz & Prater, 1988).

Although TOEFL has been universally recognized as a valid test to measure non-native English speakers' language proficiency, and the Reading Comprehension and Vocabulary Section of TOEFL has been considered adequate for measuring the ability to understand a variety of general reading materials (Buell, 1992; Abraham, 1990), research on the relationship between summary writing and TOEFL scores is meager.

#### Effect of Instruction in Summarizing on TOEFL Scores

Summarizing helps students to organize reading materials in meaningful ways (Bromley & MCKeveney, 1986; Guido & Colwell, 1987; Stotsky, 1982). As TOEFL requires students to recognize the main points of written materials as well as the main points of oral presentations (a type of organizing materials in meaningful ways), it is logical to assume that instruction in summarizing written materials would help students improve their overall TOEFL scores.

In order to test the assumption that instruction in summarizing would help students improve their TOEFL scores, a research study was conducted. The researchers looked at two already established ESL classes. One class, with an average TOEFL score of 400, was composed of fourteen students; the other class also had an average TOEFL score of 400 and was composed of seven students. (As the classes were already established, the researchers had no control over the class size or of the average TOEFL score of the class members.) Over a six-week period the class of seven students was given daily instruction in summarizing skills, beginning with summarizing very short written materials composed of two paragraphs and moving on to finally summarizing materials composed of eight to ten paragraphs.

The group composed of fourteen students received six weeks of TOEFL prep from commercially prepared TOEFL prep materials.

At the end of the six-week period the two groups took TOEFL. The group which had received instruction in summarization skills had an average TOEFL score gain of seven (7) points. The group which had received instruction with commercially prepared TOEFL prep materials had an average TOEFL score gain of thirteen (13) points. As the standard deviation for TOEFL scores is fourteen (14) points, there seemed to be no significant difference between the two groups' gain scores.

#### Effect of Regular Use of Summarizing on TOEFL Scores

In order to test the assumption that students who summarize will have significantly greater improvement in TOEFL gain scores than will students who do not summarize, a group of ESL students who had been in ESL classes in the United States for nine months was surveyed. Specifically, seventy-six ESL students responded to a survey in which they were asked whether they ever used summarizing to help themselves understand class assignments. Of these seventy-six students, sixty-one reported that they sometimes wrote summaries to help themselves understand class assignments. Fifteen students said they never summarized.

When the students first entered ESL classes, all seventy-six had been given TOEFL. After nine months of ESL study, the students were again given TOEFL. After nine months of ESL study, the students who had reported using summarization had a TOEFL score range of 380-410 with an average gain score of sixty-one (61). After nine months of ESL study, the group which had reported never using summarization as a study aid had a score range of 340-410. The average gain score for this group was forty-two (42).

As the standard deviation for TOEFL scoring is fourteen (14) points, the nineteen (19) point discrepancy between the two groups' gain scores seemed to be significant. However, the discrepancy in size between the two groups may negate any significance of the difference between gain scores.

#### Further Comments

Logically, summarizing activities should affect students' abilities to process information. Improved ability to process information should improve TOEFL scores. The studies described here should be replicated using larger samples and lasting over longer periods of time. As TOEFL tests students' understanding of both reading passages and oral presentations, students should be given instruction in summarizing both written passages and oral presentations.

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