

ANALYZING CRITICAL THINKING SKILLS IN READING COMPREHENSION SECTION OF TOEFL BOOK

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ABSTRACT

The purpose of this study is to analyze the reading questions in reading comprehension section of TOEFL book from critical thinking perspective. Using Deborah Phillip's Longman Introductory Course for the TOEFL test: Diagnostic Pre-Test and TOEFL Post-Test (2004), the data consists of one hundred multiple choices of reading questions. Six types of critical thinking skills proposed by Facione (2013) are used by this study to reveal what types of critical thinking skills are mostly reflected in reading comprehension section of TOEFL book. The results show that inference skill is mostly needed by the test-takers to solve the problems, while self-regulation skill is not needed in reading comprehension section of TOEFL test.

Keywords: *Critical Thinking, Reading Comprehension, TOEFL*

INTRODUCTION

Test of English as a Foreign Language (TOEFL) was developed in 1963 by the National Council on the Testing of English as a Foreign Language (Schedl, et al. 1996). It is considered as a standardized test for English learners and is used to assess the English proficiency of candidates who are not native English speakers (Pierce, 1992). TOEFL consists of four sections: listening comprehension section, structure and written expression section, reading comprehension section and test of written English section. As one of the four basic skills of English, reading is not seen as a linear process but one in which readers constantly form hypotheses, test predictions, and use their knowledge of the world and of the language to construct meaning (Sheorey and Mokhtari, 2001:432). TOEFL reading comprehension section includes fifty multiple-choice questions that must be answered by the examinees to demonstrate their ability to understand written English about the ideas and the meanings of words in reading passages (Phillips, 2004). There are five expository texts that have been retrieved from academic magazines, books, newspapers, and encyclopedias, with variety disciplines topics-from passages with a focus in the humanities to passages with a more scientific focus (Pierce, 1992). Moreover, Pierce (1992:668) argues that reading comprehension section measures the ability to understand non-technical reading matter and the examinees are required to answer the questions on the basis of what is "stated" or "implied" in each the passages and they must choose what they consider the best of the four options provided in each item.

Reading comprehension section engages the test-takers to use the critical thinking to solve the problems. Paul (2004) states that there is a connection between critical thinking and reading comprehension, as he defines as, "The reflective mind improves its thinking by reflectively thinking about it. Likewise, it improves its reading by reflectively thinking about how it is reading..." (p.18). Moreover, Carrell and Grabe (2002) argue that, "When reading, a reader engages in processing at the phonological, morphological, syntactic, semantic, and discourse levels, as well as engages in goal setting text, summary building, interpretive elaborating from knowledge resources, monitoring and assessment of goal achievement, making adjustments to enhance comprehension and making repairs to comprehension processing as needed." (p.234). Board concept of critical thinking has brought about different definitions and terminologies by scholars (Reed, 1998, as cited in Fahim & Sa'eeppour, 2011). Paul (1985) defines critical thinking as "learning how to ask and answer questions of analysis, synthesis and evaluation". (p. 37). In details, Ennis (1985) describes critical thinking as a reflective and reasonable thinking that is focused on deciding what to believe or do, including formulating hypothesis, questions, and alternatives (p. 45).

Studies of critical thinking in reading comprehension have been conducted by scholars. Fahim and Sa'eeppour (2011) investigate the impact of teaching critical thinking skills on reading comprehension ability by assigned 60 intermediate students to two experimental and control groups after homogenized through a Nelson test. The result indicated that teaching critical thinking skills can improve language learning. Mayuasti (2015) applies Bloom's critical thinking questioning strategy to improve college students at English for Specific Purposes subject and found that critical thinking helps the students to build, to elaborate their ideas and to increase students' reading comprehension. Meanwhile, Sausina

(2016) wrote a paper to evaluate the reading questions in English textbook for Indonesia's nurses. The findings showed that interpretation and analysis skills dominated the reading questions, while evaluation and self-regulation do not reflect in reading questions of nursing book.

This study aims to analyze the reading questions in Deborah Phillip's Longman Introductory Course for the TOEFL Test: Diagnostic Pre-Test and TOEFL Post-Test (2004). The objective of the present study is to identify to what extent the reading questions in TOEFL book are in line with six types of critical thinking skills proposed by Facione (2013).

METHODOLOGY

This study takes the reading comprehension section questions of Deborah Phillips' (2004) Longman Introductory Course for the TOEFL Test as its data. There are two types of tests: diagnostic pre-test and TOEFL post-test, each tests has fifty questions. Since the data used is in the form of documents and the research outcome is ultimately the product of the researcher's subjective interpretation, the qualitative research method is best to be applied in this study (Dornyei, 2007). The data is classified based on the description of six types of critical thinking skills, as follow:

SKILL	Experts' Consensus Description
Interpretation	"To comprehend and express the meaning or significance of a wide variety of experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, or criteria."
Analysis	"To identify the intended and actual inferential relationships among statements, questions, concepts, descriptions, or other forms of representation intended to express belief, judgment, experiences, reasons, information, or opinions."
Inference	"To identify and secure elements needed to draw reasonable conclusions: to form conjectures and hypotheses; to consider relevant information and to reduce the consequences drawing from data, statements, principles, evidence, judgments, beliefs, opinions, concepts, descriptions, questions, or other forms of representation."
Evaluation	"To assess the credibility of statements or other representations that are accounts or descriptions of a person's perception, experience, situation, judgment, belief, or opinion; and to assess the logical strength of the actual or intended inferential relationships among statements, descriptions, questions, or other forms of representation."
Explanation	"To state and to justify that reasoning in terms of the evidential considerations upon which one's results were based; and to present one's reasoning in the form of cogent arguments"
Self-Regulation	"Self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis, and evaluation to one's own inferential judgments with a view toward questioning, conforming, validating, or correcting either one's reasoning or one's results."

Table. 1 Source: Critical thinking skill definitions cited are from APA Report: Export Consensus Statement on Critical Thinking (as cited in Facione, 2013:9)

ANALYSIS

The results of classifying one-hundred questions from reading comprehension section of Deborah Phillips' (2004) TOEFL book can be seen in the diagram below:

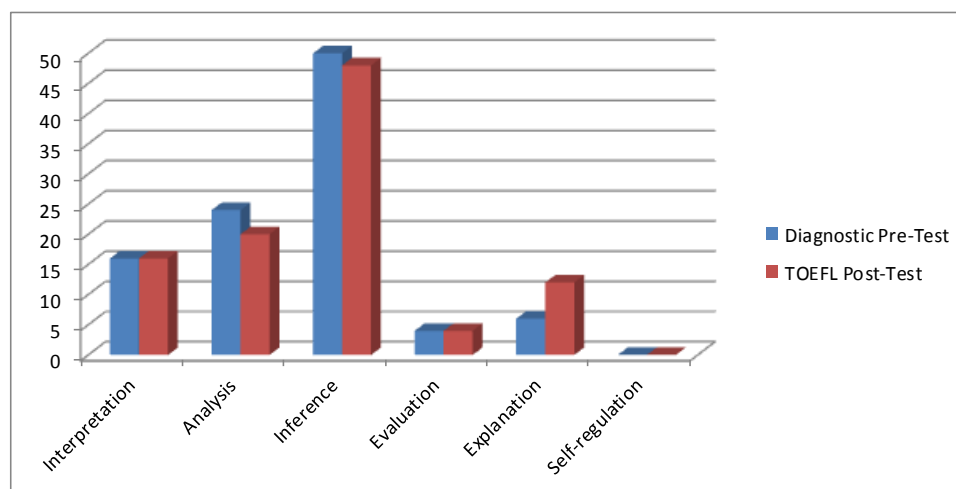


Diagram 1. Types of critical thinking classification of reading comprehension

As shown in Diagram 1, the majority type of critical thinking skill found in reading comprehension section of Deborah Phillips (2004) TOEFL book is inference skill (49%), followed by analysis (22%), interpretation (16%) and explanation (9%) skills. Evaluation skill appears only few (4%), while self-regulation skill is not reflected in reading comprehension section (0%). In details, the number and the percentage of the results are showed in the Table 2, as follow:

No	Critical Thinking Skills	Diagnostic Pre-Test		TOEFL Post-Test		Total	
1	Interpretation	8	16%	8	16%	16	16%
2	Analysis	12	24%	10	20%	22	22%
3	Inference	25	50%	24	48%	49	49%
4	Evaluation	2	4%	2	4%	4	4%
5	Explanation	3	6%	6	12%	9	9%
6	Self-regulation	-	-	-	-	-	-
	Total	50	100%	50	100%	100	100%

Table. 2. The result of critical thinking analysis

Interpretation Skill

Both in diagnostic pre-test and TOEFL post-test, there are 8 questions (16%) that represent interpretation skill. Interpretation skill is to comprehend, express and clarify the meaning or significance of a wide variety of situations (Facione, 2013). The example of this skill is represented in this question:

According to the passage, what happened to Cullinan I?

- (A) *It remained in Africa*
- (B) *It was cut into smaller stones*
- (C) *It was cut and changed into the Greater Star of Africa*
- (D) *It became the property of the British Royal Family*

(Diagnostic Pre-Test – No. 8)

To solve the problem above, the learners should comprehend the previous passage, since the answer is not explicitly written in the passage. The key answer is implicitly stated in the last sentence. *It became part of the British crown jewels in 1907.* By using the interpretation skill, the learners could choose (D) *It became the property of the British Royal Family* as the best answer.

Analysis skill

Analysis skill are found 8 times (24%) in diagnostic pre-test and 10 times (20%) in TOEFL post-test. Analysis skill is to identify the intended and actual inferential relationships among descriptions and can be identify by examine ideas (Facione, 2013). The example of analysis skill can be seen in this question:

Where in the passage does the author mention the Cullinan Diamond's weight when it was mined?

- (A) *Lines 1-2*
- (B) *Line 3*
- (C) *Lines 4-5*
- (D) *Line 6*

(Diagnostic Pre-Test, No. 9)

To answer the question above, the learners should analyze the whole passage in order to find in what lines do the author mention the Cullinan Diamond's weight when it was mined. The answer is provided in the first paragraph, lines 1-2.

Inference skill

The majority of critical thinking skill that is represented in reading comprehension section of Deborah Phillips' (2004) TOEFL book is inference, which appears in diagnostic pre-test 25 times (50%) and in TOEFL post-test 24 times (48%). Inference skill is to identify and secure elements needed to draw reasonable conclusions, to form conjecture alternatives and relevant data (Facione, 2013). The example of inference skill is represented in this question:

The word “secret” in line 7 could be replaced by

- (A) *Unrevealed*
- (B) *Delicious*
- (C) *Business*
- (D) *Speechless*

(Diagnostic Pre-Test, No. 17)

The question above requires the conjecturing alternatives, so the learners should involve their common knowledge to choose the best answer. The words “secret” and “unrevealed” have closer meaning than the other words. So, the best answer would be (A) *unrevealed*.

Evaluation skill

Meanwhile, there are 2 questions (4%) in diagnostic pre-test and TOEFL post-test that represent evaluation skill. According to Facione (2013, p.6), evaluation skill is to assess the credibility of statements or other representations that are accounts or descriptions of a person’s perception. This skill is reflected in the following example:

Which of the following is true according to the passage?

- (A) *Light travels at 186.000 miles per hour*
- (B) *A person could travel from Earth to Proxima Centauri in four years*
- (C) *Light from Proxima Centauri reaches the Earth in more than four years*
- (D) *It is 186.000 miles from the Earth to Proxima Centauri*

(Diagnostic Pre-Test, No. 47)

Evaluation skill is needed to solve the problem above by assessing the logical strength of the actual or intended relationships among descriptions (Facione, 2013). To decide which statement is true based on the passage, the learners should go over the whole previous passage and decide how credible each statement. The answer of the question above is implied in the last sentence of the second paragraph, *Light travels at a speed of 186.000 miles per second, and it still takes light more than four years to travel from Proxima Centauri to the Earth*. So, the best answer would be (C) *Light from Proxima Centauri reaches the Earth in more than four years*.

Explanation skill

Explanation skill appears 3 times (6%) in diagnostic pre-test and 6 times (12%) in post-test. Facione (2013) states that, “The experts define explanation as being able to present in a cogent and coherent way the results of one’s reasoning.” (p.6). This skill is reflected in the following example:

A “recipe” in line 5 is

- (A) *Information about drugs for a pharmacy*
- (B) *A description of how to prepare something*
- (C) *An accounting statement*
- (D) *A corporate organizational plan*

(Diagnostic Pre-Test, No. 14)

The question above requires an explanation or a description. The test-takers should state or justify the information gathered from the passage. The hint was provided in the second paragraph, *Many of the ingredient are known; in addition to coca leaves and cola nut, they include lemon, orange, lime, cinnamon, nutmeg, vanilla, caramel and sugar*. So, the best answer would be (B) *a description of how to prepare something*.

CONCLUSION

As to the cognitive skills, critical thinking includes interpretation, analysis, evaluation, inference, explanation, and self regulation (Facione, 2013:65). This study has shown the reflection of the critical thinking skill in reading comprehension section of TOEFL book. Five out of six types of Facione (2013)’s critical thinking skills are found. The majority of critical thinking types in reading comprehension section is inference. It means that the test-takers are needed to be able to querying evidence, conjecturing

alternatives and drawing conclusion (Facione, 2013:6). Meanwhile, self regulation skill does not reflect in reading comprehension section of TOEFL book because the test-takers are not required to do self examination and self correction.

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