Metacognitive Reading Strategies in EAP: 
A Case Study with Practical Implications 
for Teaching EAP Reading Comprehension 

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Introduction

Many studies in applied linguistics and TESOL have analyzed written texts in EAP (English for Academic Purposes), which have led to methodological implications for teaching reading and writing (Swales, 1990; McCarthy, 1991; Dudley-Evans and St. John, 1998; Celce-Murcia and Olshtain, 2001; Gillet, 2008). One such implication is an analytical approach, which has recently been used for reading in EAP. Through this methodology, learners are encouraged to analyze and understand a text in terms of text type, structure, discourse features, signal transitions, and other lexical elements. In the first semester of 2008 at Ritsumeikan University, I applied such an approach (Enright et al., 2000) to analyze TOEFL ITP reading for upper intermediate students in an EAP
classroom. In March 2009, I summarized my findings in an article, which consists of a case study analyzing a TOEFL ITP reading passage and questions, and the assessment of classroom application (Kamijo, 2009). The study helped me to understand how the theory of analyzing TOEFL ITP reading might be applied to pedagogical practice.

In the second semester of 2008, I applied the analytical approach to general EAP reading comprehension tasks, which are outlining important features of a reading text, and summarizing it. These two metacognitive reading strategies are considered a key to refining learners’ reading ability (Allen, 2003; Evans, 2008). The theoretical framework for EAP is suggested by Evans (2008). At the end of the second semester, I found that the students’ reading ability had progressed due to the metacognitive reading strategies. In the first semester of 2009, I decided to more thoroughly investigate these strategies for EAP reading through classroom research. The research will help me evaluate the theory through practice, enabling me to further develop my teaching in EAP. Due to this background, I embarked on the present research, which includes a case study of an argumentative text through using outlining and summarizing, and the discussion of their pedagogical application.

In this article, I take three steps to evaluate the framework and its application. First, I describe the frameworks of metacognitive reading strategies by Allen (2003) and Evans (2008). Second, I present a case study of an argumentative passage, based on an approach by outlining and summarizing the passage. To conclude, I describe the pedagogical application in the first semester at Ritsumeikan University, and discuss the implications for practice and research.

Metacognitive reading strategies

Reading comprehension requires the decoding of words written in a text and the appropriate application of comprehensive metacognitive strategies. It is often described as a constructive process in which readers try to use cognitive and metacognitive strategies to actively increase their comprehension of a text. (Dole et al. 1991; Pressley and Afflerbach, 1995; Harvey and Goudvis 2000; Allen, 2003; Israel, 2007) With regard to utilizing metacognitive reading strategies, Israel (2007) says that skilled readers manage planning, monitoring and evaluating strategies.

Metacognitive strategies increase readers’ meaning construction, monitoring of text and reading comprehension, and their ability to evaluate the text they are reading. Metacognitively skilled readers are readers who are aware of knowledge, procedures, and controls of the reading process. They use this knowledge during the reading process to improve reading and comprehension ability (p.3).

In the education and applied linguistics literature, two researchers provide useful metacognitive reading strategies for pedagogical application. First, Allen (2003) describes a model
of five metacognitive reading strategies, as she reviews the literature of metacognitive reading strategies in both L1 and L2 contexts.

Making sense of the text by the reader is also very dependent on the use of metacognitive strategies. It is not enough to simply decode the words. The readers must have inner conversations in which they: (1) relate the text to their own lives, (2) determine which facts are important and unimportant, (3) summarize information, (4) fill in details and draw inferences, and (5) ask questions, — (p.320).

Allen’s literature review of metacognitive reading strategies includes major L1 and L2 researchers in the US who used either experimental or quasi-experimental methods, in which they compared students having reading strategy instructions with students not having reading strategy instructions. The results of previous research reviewed by Allen (2003) indicated the effectiveness of teaching metacognitive reading strategies for ‘diverse groups of learners, including L1, L2, and learning disabled students’ (p.336).

Second, Evans (2008) evaluates Allen’s metacognitive reading strategies, which are slightly modified and divided into six elements (p.241).

1. Deciding important points
2. Relating ideas to readers’ lives
3. Summarizing
4. Filling in points not explicitly made
5. Making inferences
6. Asking questions

Evans (2008) mentions Allen’s categories to assess the metacognitive reading strategies which might suit the pedagogy in EAP courses. Evans (2008) refers to the framework of metacognitive reading strategies, in which ‘students summarize and react to the texts they read’ (p.240). The strategies have four stages: outlining, summarizing, noting reactions and referential questioning.

First, Evans (2008) indicates the tasks of outlining and summarizing in comparison to Allen’s model of metacognitive reading strategies.

Outlines are visual representations of the overall rhetorical structure of a text. Detailed outlines note ideas contained in a text, and how these ideas relate to each other. Outlining in the RRJs can incorporate the metacognitive strategies of deciding the most important points (strategy 1), filling in points not explicitly made (strategy 4), and making inferences (strategy...
5). — In addition, a written summary to accompany an outline should activate strategies 1, 3, 4, and 5 — (p.241).

Second, writing reactions and referential questioning are mentioned in the context of Allen’s (2003) metacognitive reading strategies.

— students need to note their reactions, and relate ideas to their own experiences, consistent with metacognitive strategy 2. — Referential questions demand greater cognitive involvement with the text and are normally dependent upon the reader’s finding ‘gaps’ in the writer’s ideas, and or the reader’s understanding of them (p.241).

Evans (2008) has applied these metacognitive reading strategies to a L2 EAP course, evaluating students’ perceived effectiveness of the metacognitive reading strategies. From the feedback of a survey in his L2 EAP classroom, Evans (2008) found that most students regarded the metacognitive reading strategies to be useful for both reading comprehension and reading-to-write activities, which are essential in EAP.

The frameworks of metacognitive reading strategies that Allen (2003) and Evans (2008) suggest are summarized in Table 1.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>1. Deciding important points</td>
<td>Outlining/Summarizing/Referential questioning</td>
</tr>
<tr>
<td>2. Relating ideas to readers’ lives</td>
<td>Noting reactions/Referential questioning</td>
</tr>
<tr>
<td>3. Summarizing</td>
<td>Summarizing and paraphrasing</td>
</tr>
<tr>
<td>4. Filling in points not explicitly made</td>
<td>Outlining/Summarizing/Referential questioning</td>
</tr>
<tr>
<td>5. Making inferences</td>
<td>Outlining/Summarizing/Referential questioning</td>
</tr>
<tr>
<td>6. Asking questions</td>
<td>Referential questioning</td>
</tr>
</tbody>
</table>

Allen’s model is applicable to both L1 and L2 contexts, while Evans’ approach matching Allen’s categories is especially applicable for L2 EAP programs. Evans’ model indicates that outlining and summarizing a text might be helpful for students’ reading comprehension. In the section below, I provide a case study of how the two metacognitive reading strategies, consisting of outlining and summarizing, are used for reading comprehension in EAP, as I analyze an argumentative text.
A case study of an argumentative text

This section provides a case study of an argumentative text, as I use the two metacognitive reading strategies for EAP (Evans, 2008), including 1) outlining, and 2) summarizing. Outlining is marking and underlining important points in a text, including the thesis statement, topic sentences, transitional phrases, signaling words, and examples (See Notes). Summarizing should be based on the text analysis and should also be written with paraphrased words and phrases. The argumentation passage applied for the case study is from the ‘TOEFL iBT test total preparation textbook’ (Kamijo, 2006) published by Subarusha Publishing Corporation. The writer’s argument in the text supports the benefits of electronic networks for university students’ academic work.

1) Outlining

Recently, the increasingly important role of information technology in university education has brought a number of new educational media resources. Computer resources are managed, stored, and delivered by university libraries and computer labs. Among the resources available, gaining access to information through electronic networks is especially useful for students, enabling them to find necessary academic data and to work on their assignment papers, presentations, and dissertations effectively. (thesis statement)

One major advantage of an electronic network is that it enables students to search for data regarding academic journals. With their registration numbers, students can use such an academic journal search. By inserting key words or titles, students can view many abstracts of articles relevant to their studies. Having found the references they need, they can then pick up articles well-matched to their needs from the huge stock of academic resources stored in the library. This will surely benefit students in writing their papers, doing presentations and preparing for their dissertations.

On the other hand, some critics argue that electronic networks employing computer technology do not necessarily benefit university students’ academic work because students obtain too much information from the network. They claim that students may spend too much time searching for information relevant to their academic work, with the result that they do not have time to complete their papers.

Yet, this is not a question of technology but a matter of how students set about preparing for their academic papers in their daily work. After clarifying the outlines of their papers and the information they need, students are fully prepared to use such computer technology as an academic journal search. Thus, the difficulties can be overcome through proper preparation for academic work, with the assistance of teachers if necessary, and through tutorials...
with their supervisors.

In summary, there is, with regard to computer technology, a clear, major benefit to be derived from the resource of an electronic network. (topic sentence) It can effectively assist students in their academic coursework since it simplifies the task of searching for information, particularly in connection with articles in academic journals. In addition, students can be fully prepared to use such a network resource through constant communication with their teachers about their coursework in their regular studies.

The text is divided into five paragraphs, in which the first paragraph is the introduction, and the second, third, and fourth paragraphs are all body paragraphs. The fifth paragraph is the concluding paragraph reiterating the author’s view from the introduction.

Key words include information technology, computer resources, and electronic networks. The key words are found in the introductory paragraph and topic sentences in each paragraph. From the thesis statement, readers will be able to understand that the topic of the text is the advantages of an electronic network for students.

Transitional words and phrases help readers understand the logical development of the argument. The author begins by stating that electronic networks are helpful for students, provides one advantage, shows an opposing view, refers to a rebuttal to the view, and ends with a concluding statement.

Signaling phrases show the advantages and disadvantages of electronic networks for the students. Examples such as academic journal search, articles, papers, and dissertations enable readers to increase their understanding of the topic.

2) Summarizing

The passage argues that electronic networks help students’ data search and academic work. First, the writer provides an advantage of electronic networks. Students can easily search for academic literature, helping them write better assignments and create better presentations. Second, the author presents an opposing view. Electronic networks are time consuming, and students may be confused by so much data. Consequently electronic networks could be inefficient tools. Third, a rebuttal to this view is presented. Students’ study skills and organized outlines of their papers allow them to identify what they should look for. With help from teachers, such preparation is appropriately done. Lastly, the conclusion is written, confirming that electronic networks are useful for students’ academic work.

Two steps are taken for summarizing. First, the summary makes explicit the line of argument, which concerns with the author’s purpose of the text. It includes an advantage of electronic networks, an opposing view, a rebuttal to the opposition, and the conclusion confirming the
advantages. Second, paraphrasing is applied. The statement is summarized with the length of one-third of the argumentative passage, utilizing different words, phrases and sentence structures.

**Pedagogical application**

In the first semester from April to July 2009 at Ritsumeikan University, I taught a reading class for International Business Administration majors. These students participate in a study abroad program, so they take the TOEFL ITP and learn study skills required for English for Academic Purposes. The reading class was organized to meet these students’ goals. Most of the students had a proficiency level equivalent to TOEFL ITP scores of 450 to 500. To succeed students must efficiently and analytically read the texts, synthesizing the data they gather into academic writing with a summary and discussion. To address their test needs, my teaching has four approaches.

First, there is summarization using an EAP reading textbook for the class. The class textbook was *World Class Readings 3* (Rogers, B., 2006), which has 15 units. The contents include the social and natural sciences. The text types are expository, historical/biographical narrative, and argumentative. Each unit has an approximately 800 word text and reading exercises. In April and May, I assigned students homework of summarizing several texts from the textbook. I stated that understanding key words, transitional words and other features is important for summarizing, and that summarizing is paraphrasing, not copying the text.

Second, TOEFL ITP reading texts are used for analyzing and summarizing. From early May to July, I provided students with practice in reading and summarizing TOEFL ITP reading passages. The passages are approximately 350 words, and text types include expository, historical/biographical narrative, and argumentative. Passages of that length allowed students to mark the important information, the thesis statement, topic sentences, transitional phrases, signaling vocabulary, and examples. In week 5 (May 7), week 10 (June 11), and week 15 (July 16), I assigned papers for analyzing and summarizing a TOEFL ITP reading passage. Students then wrote the prepared analyses as examination papers and submitted them in the three classes.

Third, the student assignment was analyzing and summarizing a set text of TOEFL ITP reading. In late May, I assigned the first term paper. Students had to analyze a TOEFL ITP reading passage with a chronological text structure. They needed to analyze the text type and identify the thesis statement, topic sentences, major examples, transitional phrases, and signaling vocabulary. They then had to paraphrase the text to write a summary. Students were also required to evaluate the questions given in the TOEFL ITP reading. They submitted the paper on June 18.

Lastly, students had to analyze and summarize an argumentative text. In late June, I gave students this second assignment. (The assigned argumentative text is used in the case study section of this paper.) In the beginning, students needed to read an argumentative text, understand the text through marking and outlining, and summarize the text. At this stage, students had to understand the text type, thesis statement, topic sentences, examples, transitional phrases, and
signaling vocabulary. Then, based on the outlining, they would write a summary. Students submitted the second assignment on July 9.

As I assessed the four activities in my teaching in the EAP-based class, I realized that the two metacognitive reading strategies, outlining and summarizing, enabled students to become aware of the text structure and discourse features, and facilitated these students becoming gradually more active in their reading. My teaching used a step-by-step pedagogy from assisted preparation to more self-initiated assignment papers: First, from April to June I gave students the tasks of analyzing and summarizing a text by using *World Class Readings 3* and TOEFL ITP reading texts to facilitate their becoming aware of the text and discourse features. As the students became aware of the text structure and able to mark, outline, and summarize, I assigned a term paper in late May for analyzing the text of a TOEFL ITP reading. Lastly, in late June, after students were more familiar with marking and summarizing, I gave them the second assignment for an argumentative text.

At the end of the first semester in July, to evaluate my teaching methodology and students’ learning outcomes, I asked students to complete a questionnaire and comment about their learning. The questionnaire attempted to evaluate the four activities in the first semester. Nineteen students answered the questionnaire. In the comments, 17 students wrote about what they thought they learned most from the activities and assignments of outlining and summarizing a reading passage.

**Evaluation of the methodologies**

The questionnaire consisted of the four stages in my teaching during the first semester, including Summaries of *World Class Readings 3* (exercises), Analysis and summaries of TOEFL ITP reading texts (exercises and tests), Analysis and summary of an TOEFL ITP reading text (assignment), and Analysis and summary of the argumentative text (assignment). Students had five choices to rate these categories: very effective, effective, somewhat effective, slightly effective, and not effective.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Effectiveness</th>
<th>VERY EFFECTIVE</th>
<th>EFFECTIVE</th>
<th>SOMEWHAT EFFECTIVE</th>
<th>SLIGHTLY EFFECTIVE</th>
<th>NOT EFFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summaries of <em>World Class Readings 3</em> (exercises)</td>
<td>3 (15.7%)</td>
<td>14 (73.6%)</td>
<td>2 (10.5%)</td>
<td>- (0%)</td>
<td>- (0%)</td>
<td></td>
</tr>
<tr>
<td>Analysis and summaries of TOEFL ITP reading texts (exercises and tests)</td>
<td>3 (15.7%)</td>
<td>13 (68.4%)</td>
<td>3 (15.7%)</td>
<td>- (0%)</td>
<td>- (0%)</td>
<td></td>
</tr>
<tr>
<td>Analysis and summary of an TOEFL ITP reading text (assignment)</td>
<td>3 (15.7%)</td>
<td>13 (68.4%)</td>
<td>3 (15.7%)</td>
<td>- (0%)</td>
<td>- (0%)</td>
<td></td>
</tr>
<tr>
<td>Analysis and summary of an argumentative text (assignment)</td>
<td>3 (15.7%)</td>
<td>10 (52.6%)</td>
<td>6 (31.5%)</td>
<td>- (0%)</td>
<td>- (0%)</td>
<td></td>
</tr>
</tbody>
</table>
For the four activities, 19 students felt positive in the first semester. The number of students who explicitly felt the effectiveness of the activities was 17 for *World Class Readings 3*, 16 for TOEFL ITP reading texts, 16 for TOEFL ITP reading assignment, and 13 for argumentative text assignment. The results of the questionnaire indicated students’ views towards the teaching approaches through the two metacognitive reading strategies.

**Description of students’ learning outcomes**

Of the 19 students, 17 commented about their learning while 2 students did not do so. Specifically, students were asked what they had mainly learned from the two outlining and summarizing assignments, which consisted of a TOEFL ITP reading passage and an argumentative text. Comments were written in Japanese. The comments below have been translated into English by the author. The original comments written in Japanese are presented in the appendix of this paper.

<table>
<thead>
<tr>
<th>Table 3. Students’ comments about their learning outcomes (n = 17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Ability to determine the important points in a reading passage</td>
</tr>
<tr>
<td>- Paragraph reading and analysis of a reading passage</td>
</tr>
<tr>
<td>- Being able to logically understand the contents of a text</td>
</tr>
<tr>
<td>- Learning the importance of identifying topic sentences and transitional words</td>
</tr>
<tr>
<td>- Structure of paragraphs and the approach for writing a summary</td>
</tr>
<tr>
<td>- Being familiar with paraphrasing</td>
</tr>
<tr>
<td>- Ability to understand the topic of a text</td>
</tr>
<tr>
<td>- Paraphrasing and summarizing skills</td>
</tr>
<tr>
<td>- Understanding important points in a text and facilitating answering reading questions</td>
</tr>
<tr>
<td>- Learning the importance of paraphrasing</td>
</tr>
<tr>
<td>- Technique for identifying topic sentences</td>
</tr>
<tr>
<td>- Reading a passage analytically</td>
</tr>
<tr>
<td>- Using paraphrasing and increasing vocabulary variety for writing</td>
</tr>
<tr>
<td>- Learning the importance of paraphrasing</td>
</tr>
<tr>
<td>- Understanding how to read a text and improving comprehension of the text</td>
</tr>
<tr>
<td>- Being able to read a passage better, being capable of reading efficiently, and understanding the development and details of a passage</td>
</tr>
<tr>
<td>- Understanding important sentences in a text, being able to paraphrase the text and reading the text with more understanding</td>
</tr>
</tbody>
</table>

Table 3 shows that 17 students commented about the learning outcomes concerning the metacognitive reading strategies related to analytical reading. Among the 17 students, 12 regarded analytical reading and outlining as the results of their learning, and 7 students considered...
summarizing as their learning achievement. Two students wrote that they learned both analytical reading by checking, outlining and summarizing.

**Summary and conclusions**

In this paper, I have presented a case study of an argumentative text and discussed EAP classroom pedagogy. First, I referred to the literature about metacognitive reading strategies, especially those used in EAP. In the literature, Evans (2008) assesses metacognitive reading strategies for EAP courses, which include outlining, summarizing, noting reactions, and referential questioning. Second, I applied the two metacognitive reading strategies in Evans’ model (2008), outlining and summarizing, to analyzing the argumentative text as a case study. Third, I discussed the pedagogical application. Evaluating the stages for the classroom application of the two metacognitive reading strategies, I found that student reading gradually progressed because of their increased familiarity with the texts and discourse elements. As they learned to use the two metacognitive reading strategies, students became more activated in analyzing and paraphrasing texts for reading comprehension. The results of the questionnaire indicate that most of the students found the two metacognitive reading strategies to be effective.

Future research could take two directions. One direction for metacognitive reading strategies could apply additional data gathering methods, including students’ test data, interviews with students and teachers’ reflective journals. Especially, further research might make use of a pre-test/post-test analysis to measure actual improvement. Another direction for research over a longer period might allow the researcher to investigate how students could make greater progress through the whole process of outlining, summarizing, noting reactions, and referential questioning tasks. More authentic EAP reading texts might be applied for such classroom research. This second direction would concern research in reading and reading-to-write, which would lead to further EAP development.

**Notes**

1) Author’s notes

- **UNDERLINED** topic sentences
- **WORDS IN GRAY** key words related to topic
- **GRAY AND BOLD** transitional words (cause/effect, relationships, etc.)
- **BOLD** signaling vocabulary
- **ITALICS** examples

**References**


Ann Arbor, MI: University of Michigan Press.


Appendix A

Readability analysis is attached in the appendix A.

Readability analysis of the text

The argumentative text used in the case study of this paper is assessed in terms of its readability. Vocabulary lists are frequently used to analyze the level of readability of a text. There are two popular word lists to evaluate a text for English for Academic Purposes (EAP): General Service List (GSL), and Academic Word List (AWL).

General Service List (GSL)

General Service List (GSL) contains the 2000 most frequently used words based on a most written corpus and generated according to a number of selection criteria including frequency and range (Dutton, 2006). Developed in the early 20th century, the GSL is widely available. The GSL is estimated to represent 82 percent of words used in English (Nation and Warning, 1997). The GSL words are divided into the basic K1 (1000 words) and more intermediate K2 (1000 words).

Academic Word List (AWL)

For the data of academic language, the Academic Word List (AWL) was developed (Coxhead, 2000). In selecting the data, any word item from the GSL was excluded. The AWL corpus includes 3.5 million words, which were selected from various academic texts in different disciplines, including Arts, History, Psychology, Sociology, Commerce, Law, Biology, Sciences, Mathematics and so on.

The data of Vocabulary profile

The software tool applied to analyze the GSL and AWL in the argumentative text is a corpus analysis software called ‘Web Vocabprofile’ (Cobb, T; 2008).

Results of the analysis

The readability analysis of the argumentative text in the case study section is conducted through the Vocabprofile software. The results divided into the types of vocabulary lists are shown below.

<table>
<thead>
<tr>
<th>Types of Vocabulary</th>
<th>Number of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSL K1 (1-1000)</td>
<td>264 words (71.16%)</td>
</tr>
<tr>
<td>GSL K2 (1001 – 2000)</td>
<td>26 words (7.01%)</td>
</tr>
<tr>
<td>AWL (Academic words)</td>
<td>65 words (17.52%)</td>
</tr>
<tr>
<td>Other-List Words</td>
<td>16 words (4.31%)</td>
</tr>
<tr>
<td>Total Words</td>
<td>371 words (100%)</td>
</tr>
</tbody>
</table>

Appendix B

Students’ comments about their learning from classroom activities
パッセージチェックと英文要約作成のレポート学習により、全般にどのようなことが学べましたか。(What have you learned from the assignments of checking and outlining the reading passages and summarizing them?)

- 文章の中で何が重要なのか分かるようになった。
- パラグラフリーディングやパッセージの分析など
- パッセージの内容をより論理的に理解できるようになった。
- トピックセンテンスの見極めや、接続詞の重要性を学びました。
- 段落の構成と要約の書き方
- 言い換え表現を思い付くようになりました。
- トピックをひろえるようになった。
- 言い換え表現のまとめ方
- 文の重要なポイント、成り立ちがわかり、問題を解く時のヒントになった。
- 言い換え表現の重要さ
- トピックセンテンスの把握のしかたなど
- パッセージを分析しながら読むこと
- 言い換え表現を使うことによって、同じ意味の単語を学ぶことができた。
- 言い換え表現の難しさや大切さ
- 文章の読み方が理解でき、内容が読みとりやすくなった。
- 全体をバランスよく読めるようになり、スピード、読むときの強弱がつけられるようになった。あと、流れをつかめるようになった。
- 文章の中で大切なセンテンスがどの場所にあるかを知ることができたし、英文の言い換え表現を知ったり、文を深く読むことができた。