

Applying Student Learning Logs for Evaluating Reading Strategies in a Sophomore EAP Course: Extended Research and its Implications

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要約

セメスター終了時に選択形式のテストや質問紙により学習成果を測定する手法があるが、これらのアプローチでは読解ストラテジーの学習成果を必ずしも直接評価できない。このことについて、質的研究手法でも学習ログ (Learning Logs) により評価をすることが有効であるといわれている。2011年における研究で、筆者は Auerbach and Paxton (1997) による学習ログデザインを使い、セメスター終了時に読解ストラテジーの学習評価を行った。そして今回は2012年前期2回生 EAP クラスを対象に、前回使用した学習ログのデザインを広げより詳しい学習評価を試みた。手法として学習ログによるデータを学期末だけでなく、学期を通して集めた。さらにビジネスのテキストタイプの認識や学習の問題とその克服という要素を項目に加えた。近年コミュニケーションタスクやリスニングの評価として学習ログを採用した研究はあるが (Stewart, 2007; Kemp, 2010)、読解ストラテジーを扱ったものは少なく研究の必要性は強い。本研究では学習ログのデザインを応用させていかに学生が読解ストラテジーを学んだかという評価を行い、今後の研究の方向性を考えていく。

Keywords : English for Academic Purposes (EAP), learning logs, metacognitive reading strategies, student learning

Introduction

English for Academic Purposes (EAP) researchers and teachers have approached the teaching of reading and writing in terms of discourse analysis and text comprehension. Many studies have investigated how text analysis might be applied to EAP teaching (Swales, 1990; McCarthy, 1991; Dudley-Evans and St. John, 1998; Celce-Murcia and Olshtain, 2001; Gillet, 2008). In teaching reading comprehension for EAP, teachers regard analytical reading as essential. Learners are taught to analyze reading passages, as they identify text types, structures, discourse features, signal transitions and lexical elements. They are also taught to analytically read for their writing. Both analytical reading and summarization should be taught in EAP reading classes. In those

classes, a model of metacognitive reading strategies can be usefully applied to teaching (Allen, 2003; Evans, 2008). The framework of the model has three phases: pre-reading, while-reading and post-reading. In my reading classes, the researcher divided the phases into surveying a text, reading it analytically, and then outlining and summarizing the material.

During my four years at Ritsumeikan University, the researcher has applied the framework of analytical reading and summarization in my reading classes and utilized it for teaching practice as my research venue. In the spring semester of 2011, the researcher used learning logs for sophomore EAP reading classes to illuminate student learning outcomes, especially student use of metacognitive reading strategies. Learning logs are regarded as a qualitative research method to evaluate student learning (Alvermann and Phelps, 1994; Smith, 1996; Auerbach and Paxton, 1997; Soldner, 1997, 1998; Stewart, 2007; Kemp, 2010). Among these researchers, Auerbach and Paxton (1997) used comprehensive student learning logs and investigated classroom reading strategies in an American ESL course. In my reading class, the researcher applied the framework that Auerbach and Paxton (1997) developed.

At the end of the spring semester of my reading class in 2011, students were assigned the task of learning logs to reflect on their learning throughout the semester. The learning logs indicated that students defined the reading strategies as analytical reading and summarization, and showed that students used these reading strategies in their own ways. The effects of using reading strategies included better understanding of a text, increased reading speed, and the plan to use the strategies for TOEIC and TOEFL tests. In March 2012, the researcher organized the research and published it as an academic journal article (Kamijo, 2012).

Learning logs enable teachers to evaluate student use of reading strategies, which are pre-reading, while-reading and post-reading phases. The researcher realized that both a survey about learning outcomes and a multiple choice reading comprehension test are limited, since these two approaches do not directly assess how students actually utilize reading strategies. Learning logs can be a useful tool that might complement these assessment methods and can also be worthwhile for research.

After the research and publication, the researcher evaluated its limitations and attempted to extend the research methods and undertake further research into reading strategies. In previous research (Kamijo, 2012), the researcher collected the data from student learning logs in week 14, during which students reflected upon their learning in the course. Collecting the data from student learning logs throughout the semester would allow investigating student learning at the beginning, middle and end of the semester. The design of learning logs required two additional elements. Sophomores learn English for Academic Purposes with business studies. Students practice reading business texts such as news articles and editorials. Student learning logs should also facilitate student reflective comment about how they understood the business texts. Second, student learning logs can also show the problems they encounter and how they resolve the problems. Thus, the researcher added these two categories to a newly devised learning log. Until now,

relatively few studies have been done with respect to evaluating reading strategies through the use of learning logs in reading courses, and teacher research into this theme utilizing refined methods is very desirable.

Based upon the background, in the spring semester of 2012, the researcher attempted to apply the extended design of student learning logs and evaluate student reading strategies in a sophomore EAP course. In the present research, the researcher addressed the following four research questions:

- 1) What were the development and outcomes for students learning metacognitive reading strategies? What did the student learning logs indicate?
- 2) What business and management texts did students understand and assimilate?
- 3) What problems did students encounter and how did they overcome them?
- 4) What were the implications for teaching and future research?

Metacognitive reading strategies

Reading comprehension is defined as a constructive process in which readers can actively apply cognitive and metacognitive strategies for understanding a text (Dole, Janice, Gerald G. Duffy, Laura R. Roehler, and P. David Pearson, 1991; Pressley and Afflerbach, 1995; Harvey and Goudvis, 2000; Allen, 2003; Israel, 2007). In previous studies of education and applied linguistics, O' Malley and Chamot (1990) define metacognitive reading strategies as composed of advance organization, organizational planning, selective attention, self-monitoring, and self-evaluation. Advance organization and organization planning mean previewing a text by skimming the whole reading passage, and predicting the content of the text. Selective attention refers to the activities of scanning the necessary information. Self-monitoring includes while-reading activities such as asking questions, understanding important information, and checking one's own comprehension. Self-evaluation is assessing how well reading strategies are used to understand the text.

Iwai (2011) indicates a similar model of metacognitive reading strategies, which has pre-reading, while-reading, and post-reading stages. She evaluates the usefulness of metacognitive reading strategies, as she reviews 7 previous studies on metacognitive reading strategies in L2 contexts. Some researchers used elicitation methods such as interviews and think-aloud protocol to assess the effect of metacognitive reading strategies upon learner reading comprehension skills. Other researchers applied survey instruments and did experimental studies comparing the results of pre- and post-tests between experimental and control groups. Iwai (2011) concludes,

Learning what strategies are, how to use them, when and where to use particular strategies, and the importance of evaluating their use is, therefore, key to the development of reading comprehension for students whose first language is not English (p.156).

Third, Allen (2003) describes a model of five metacognitive reading strategies, as she reviews the literature of metacognitive reading strategies in 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).

In her literature review Allen (2003) discussed metacognitive reading strategies that include the major L1 and L2 researchers in the US using either experimental or quasi-experimental methods. These researchers compared students who received reading strategy instructions with students who did not. 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).

Fourth, Evans (2008) evaluates Allen's metacognitive reading strategies, which are slightly modified, and divided the strategies 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, and 6) asking questions. Evans (2008) applied these metacognitive reading strategies to an L2 EAP course, evaluating students' perceived effectiveness of the metacognitive reading strategies. From a survey in his L2 EAP classroom, Evans (2008) found that most students regarded metacognitive reading strategies as useful for reading comprehension and reading-to-writing activities, both of which are essential in EAP. The frameworks of metacognitive reading strategies that Allen (2003) and Evans (2008) suggest are summarized in Figure 1.

Allen's model (2003)

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' approach (2008)

- Outlining/Summarizing/Referential questioning
 Noting reactions/Referential questioning
 Summarizing and paraphrasing
 Outlining/Summarizing/Referential questioning
 Outlining/Summarizing/Referential questioning
 Referential questioning

Figure 1. Metacognitive reading strategies (Allen, 2003; Evans, 2008)

Assessing the model of metacognitive reading strategies suggested by O'Malley and Chamot (1990), Iwai (2011), Allen (2003), and Evans (2008), metacognitive reading strategies are defined as follows. Metacognitive reading strategies include the three stages consisting of pre-reading, while-reading and post-reading objectives. The stages are surveying, analyzing, outlining and

summarizing strategies. Surveying means pre-reading and students are required to skim a whole text, identifying its text type and structure. Analyzing is done while reading, and students should identify the thesis statement, topic sentences, key words, conjunctions, and transition words. Students need to understand the contents of each paragraph of the text. Another activity for while-reading stage is outlining. Outlining helps students to understand the logical sequence of the text and distinguish between explicit important information and less important information. Finally, summarization is done at the post-reading phase. Students should write a summary analytically, as they refer to their analysis of the text.

Methods

Setting and participants

The students at Ritsumeikan University study English subjects for their first two years. The freshmen prepare for the TOEFL ITP in the spring semester; they study intensively to learn English for academic purposes. In their sophomore year, the students shift their studies towards English in business and management while they continue to study academic skills. Accordingly, in their second year, an EAP course incorporates the features of English for Specific Purposes (ESP) related to business administration. Students majoring in International Business Administration participate in a study abroad program. Some take the TOEFL ITP and iBT. In the semester from April 2012 to July 2012, as an instructor I taught a reading class for twenty second year intermediate level students majoring in International Business Administration. Most students in my class had a proficiency level equivalent to TOEFL ITP scores from 420 to 500. The approach of metacognitive reading strategies taught in the reading class included surveying, analyzing, outlining and summarizing. Learning logs were assigned to the students to evaluate their learning development and outcomes in the course.

Learning logs

In an American ESL context, Auerbach and Paxton (1997) investigated the teaching and learning of reading strategies and metacognitive awareness of the students in a university course. They used qualitative research methods, including teacher journals and student learning logs, interviews, think-aloud protocols, and comprehension tests. Auerbach and Paxton (1997) encouraged their students to use the reading strategies metacognitively. Student learning logs showed the students' views about their learning reading strategies, and were helpful for evaluating student learning. The learning logs were also effective for illuminating the strategies that students used and enabling them to independently evaluate the usefulness of their reading strategies when they read texts.

Auerbach and Paxton (1997) provide the following categories:

1. Name of strategy

2. Description of what you did

What was the text you used? What kind of text was it? How did you use this strategy? What did you do?

3. Effect of strategy

What was your reaction to this strategy? How did it work for you? Did it seem to help you? Why or why not? Describe the effect of using this strategy on your speed and comprehension? How do you feel about this strategy? Would you try it again?

In the present research, the Auerbach and Paxton (1997) model is utilized and extended. The categories for student learning logs include the following: First, the researcher attempts to find how students defined the metacognitive reading strategies they learned, in terms of analytical reading (surveying, analyzing and outlining) and summarization. Second, the researcher attempts to assess how students used these strategies. Third, the researcher tries to evaluate how the reading strategies shape student learning. The researcher also tries to identify business texts students understood in their learning and identify the difficulties students encountered and their approaches to responding to the difficulties.

Teaching and learning

My teaching methodology consisted of practice, three tests, and two reports. In my teaching for the students in the EAP reading classroom, summary writing exercises were assigned as homework. Students submitted their written summaries of the assigned passage and in the subsequent week they received feedback about their writing. The homework provided a basis for the following tests and reports. Students had to learn from the written feedback and carefully revise their summaries to prepare for the tests and reports independently.

Students were tested in weeks 5, 10, and 15. They were required to answer vocabulary questions and complete fill-in-the-gap exercises. These exercises accounted for one-third of the tests. Students were not allowed to refer to handouts or notes for these questions. Fill-in-the-gap exercises were to complete a summary of the passages about business-related news articles and editorials. For the week 5 test, a news article about the stock market in Europe was used. The week 10 test used a news article about a Belgian company, Barco, an editorial about the Japanese Economy and an annual report. For the week 15 test, a news article about Uniqlo, a clothing company, was provided. Before the tests, students had already read these passages analytically to prepare for the fill-in-the-gap exercises in the tests.

For the remaining two-thirds of the tests, students analyzed and summarized passages from the TOEFL ITP preparation textbook. One academic passage was about social bees for the week 5 text and another expository passage about the features and forms of caves was used for the week 10 test. Students were instructed to analyze the texts by indicating the thesis statement, topic

sentences, key words, and transitions, as they examined the introduction, body, and conclusion in the texts. After the analyses, students wrote summaries of the passages. In the tests, they were permitted to refer to their prepared summaries and notes.

Two reports were assigned for submission in week 12 and week 15. For these reports, students had to analyze and summarize a passage from the TOEFL ITP test preparation textbook. One academic text was about natural foods for the report in week 12, and another text was about acid rain for the week 15 report. The assignment required reading the text, understanding it through marking and outlining, and summarizing it. Through the class handouts, as an instructor I explained how to identify the key textual and lexical features, such as the thesis statement, topic sentences, key words and transitional phrases.

Data collection procedure

Student learning logs were assigned after each test (weeks 5, 10, and 15). Students were asked to write in English about what they learned in the reading course. In the student learning logs, students were allowed to write in an unstructured manner about anything they thought they learned, in terms of reading strategies, types of passages, content, vocabulary, and problems they encountered. My approach was to provide flexible instructions to avoid restricting the content of the student learning logs. After the data was collected, the analysis of the student learning logs was conducted using the extended research design of Auerbach and Paxton (1997). When students submitted the first report in week 12, the researcher suggested that they reflect on their report in Japanese. These comments were assessed by the researcher to complement the data from the student learning logs, although they are not directly presented in the results section. The approach to the data collection of student learning logs in the present research is summarized as follows.

Data Collection

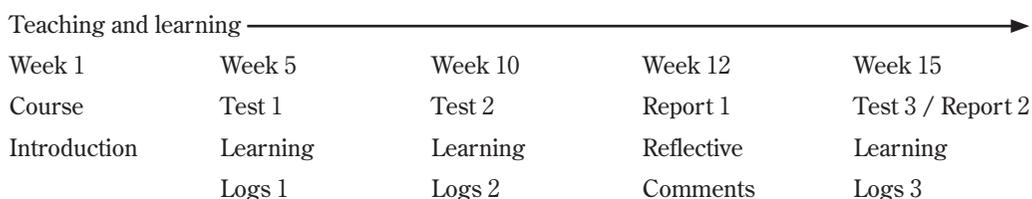


Figure 2. Data collection of student learning logs

Results and Discussion

The student learning evaluated through learning logs is presented in this section. In the week 5, 10, and 15 classes, students had to write learning logs, as they evaluated their learning right after taking tests and submitting reports. In their learning logs, some students mentioned how they used metacognitive reading strategies while others wrote about the passages of business and

management. Several students indicated other learning experiences. In this paper, due to space limitations five student learning logs are provided as the data of the research.

Learning Logs / Student 1

In the student learning logs, one student indicated reading strategies and some elements of business studies. In week 5 student 1 wrote about her learning concerning business and the steps of analyzing a text:

The learning from week 1 to week 5 is how to read the reading passages of TOEFL, how to sum up and analyze, and key vocabulary of the stock market and import/export in the textbook. As a process of academic passage, firstly, there is a thesis statement in the beginning so it is important to carefully read the introduction. Secondly, we read rapidly with a focus on topic sentences of body paragraphs. (Student 1, Learning Log Week 5)

In week 10, she mentioned both academic reading and business texts, such as an annual report and a newspaper editorial about the Japanese economy.

At first, I read 'Features and formation of caves.' I learned how to read and write a summary of the expository text. Next, I read the text of Unit 9 'Barco' and I learned the terms of an annual report and then I understood the terms' meaning. Next, I read an editorial. The editorial is about the Japanese economic recovery. I learned how to read the editorial. I also picked up the terms for setting up a business and company performance. (Student 1, Learning Log Week 10)

In week 15, she summarized her learning throughout the whole course. Her writing is revealing in that she showed more complete analysis of a text than she did in weeks 5 and 10.

I learned how to read an academic text, editorial, and news report. Basically I divided the text into introduction and body paragraphs and then I started to read and I became aware of the passage's theme, topic sentences, key words and conjunctions. Finally, I made an outline. I feel it is now easy to understand the text. I made a summary of the text. (Student 1, Learning Log Week 15)

Commentary

In her student learning logs, student 1 demonstrated that she is capable of using metacognitive reading strategies, consisting of analytical reading and summarization, as she gradually developed her abilities through the course. Her learning log in week 15 suggests the types of academic and business texts she assimilated and indicates the sequence of how she properly utilizes the reading strategies, ultimately summarizing a text analytically.

Learning Logs / Student 2

Another student learning log showed the developmental phases for her reading strategies throughout the course. In week 5, student 2 wrote about some of the important themes and skills she learned at the beginning phase of the semester.

Until week 5, I learned some things in this class. Firstly, I learned about how to write a summary. Before taking this class, I understood how to write about a topic and to write the conclusion as a summary. So my summary was not clear. In this class, I thought that a passage check and outline are important. Thanks to these activities, I was able to improve my summary. From next week, I want to practice more. (Student 2, Learning Log Week 5)

In week 10, student 2 reflected upon her previous learning, where she had not been able to read and write well enough in the week 5 test. She subsequently thought she reached a new learning plateau and did better in the week 10 test.

From week 5 to week 10, I was able to learn about how to write a summary. In the test for week 5, my summary was written with irregular sentences and only a few changed words. In addition, I didn't clearly understand 'passage check.' Thus, my score in week 5 was not good. However, I was able to understand better from week 5 to week 10, so I think my test score today is better than before. (Student 2, Learning Log Week 10)

In week 15, student 2 wrote about her learning throughout the course. Her writing indicated the accomplishment of her learning with reference to outlining and summarizing a text.

In this course, I learned about how to write a summary. Especially, an outline really helped me. Before this course, my summary lacked some information. However, thanks to making an outline, I was able to write a summary which included necessary information. Also, my efficiency of doing a passage check improved. Therefore, in the TOEIC and TOEFL, I felt my reading speed was faster than before. (Student 2, Learning Log Week 15)

Commentary

Through her student learning logs, student 2 indicated the developmental aspects of her learning. In week 5, she noticed the importance of a passage check, which is surveying and analyzing a text, and outlining. In week 10, she recognized that her learning had not been sufficient. In week 15, she wrote that she was able to use metacognitive reading strategies, as she checked a passage, made a good outline, and wrote a summary based on the analysis. She also referred to the effect of learning on her language tests.

Learning Logs / Student 3

Another student expressed an interest in reading strategies and noted that the reading strategies would be especially useful for future test preparation. In week 5, student 3 described his introductory sessions from the beginning of the semester.

We listened to the schedule of the class this semester including the contents of the mini-exam in the first class. We also studied fundamental ways of reading English texts, which are skimming, scanning, analysis and summary. In addition to the study, we tried a check test. We reviewed the check test and tried to read a new text in the second class. We checked our summary and studied the text in the third class. We brushed up on the text about 'Social Bees' and tried TOEIC practice in the fourth class. We tried the mini-exam in the fifth class. (Student 3, Learning Log Week 5)

In week 10, student 3 listed his learning by referring to the types, such as news article and editorials.

We reviewed the mini-exam and studied the text in sixth class. We also studied 'Features and Formation of Caves' and searched for key words used in an annual report in the seventh class. We reviewed 'Features and Formation of Caves' and tried to do new text in the eighth class. We searched for new words in sections 10 and 11 and studied filling-in-the-blank questions of 'Slow but Steady Economic Recovery' in the ninth class. We tried the mini-exam in the tenth class. We developed skill in writing a summary. (Student 3, Learning Log Week 10)

In week 15, student 3 reflected on his changing perceptions throughout the course with reference to learning English for academic purposes and reading strategies.

I studied the importance of reading throughout this class during the third semester. I thought the reading section was too easy because I got a high score in the mock exam for entering the university. However, my thinking was wrong. When I started studying reading at the university I felt reading has many parts. The other reason for my disappointment is my lack of vocabulary. I must memorize new words to improve reading skills. I want to study abroad next year. Therefore, I must study English skills: reading, speaking, listening, and writing to get a high TOEFL score. I will do my best this summer. Thank you for teaching various important strategies. (Student 3, Learning Log, Week 15)

Commentary

Student 3 explained the explicit stages of reading strategies including skimming, scanning, analyzing and summarizing in week 5. Also, student 3 listed his learning items in weeks 5 and 10.

In week 15, he reflected upon his learning, and said he realized that just a good score on a university entrance exam was not sufficient. He indicated his willingness to learn further to study abroad.

Learning Log / Student 4

Some students in the class showed both the interest in learning reading strategies and the application of reading strategies to reading activities in wider contexts. In the beginning phase of the semester, student 4 wrote about the benefits of using reading strategies in his learning log in week 5.

I have taken this class for five weeks, and I learned many things about reading comprehension. I learned to analyze a passage very well, so I can read very fast, and I can understand very well. I learned many business words, so I became more interested in international business. I like this class very much. (Student 4, Learning Log Week 5)

In week 10, student 4 described his learning more specifically than in week 5. He indicated his progress in finding important information, summarizing a text and reading a whole text.

I learned many things by week 10. I would like to say three big things. First, I learned the ability of picking up important parts in a text. Second, I learned the difficulty of summarization. It is very deep. I want to be able to summarize very well. Third, I learned the ability of reading widely. I came to see a text as a whole. I can read a text easily with this ability. I have learned many things so I can enjoy reading a text and taking part in this class. (Student 4, Learning Log Week 10)

In week 15, student 4 wrote not only about the reading strategies he learned but also their application in wider contexts.

I have learned many reading skills during these fifteen weeks. For example, making an outline with my understanding, doing a 'passage check' as quickly as possible, and picking up important things in a passage. Hereby, I can enjoy reading passages very much. I want to read a variety of passages around the world. Then, I can feel a sense of fun in the differences between English passages and Japanese ones. I want to develop reading skills. I learned many specialized words about management. It was very difficult for me, but it will help me when I study management. I want to know many words. I enjoyed this class. (Student 4, Learning Log Week 15)

Commentary

While he did not specifically describe them in his learning log for week 5, student 4 mentioned the definition of reading strategies he learned in weeks 10 and 15. His writing suggested that he gradually recognized reading strategies and expressed them in his own words. Student 4 also referred to the application of his learning: he would like to use reading strategies for reading varied types of passages in different languages.

Learning Logs / Student 5

Another student explained her learning throughout the course when she wrote about the types of the texts she learned in week 5: academic passages and business and management texts and terms.

I learned how to make a summary as I studied 'Social Bees' and the textbook. At first, I didn't like to summarize English articles. However, after learning I came to like summarizing a little bit. It is because I could understand the articles. Also, I studied business words. For example, about stocks and trades. This kind of learning is important for us to become members of society. Today, in Japan with expanding globalization we need to learn Business English. So I will study Business English more and more. (Student 5, Learning Log Week 5)

In week 10, student 5 again mentioned the types of the texts, content knowledge and vocabulary she learned.

I learned two points in this class. Firstly, I memorized business vocabulary, for example, limited private company, annual report, debt, revenue and more. It was too difficult for me to learn that because I have a bad memory. So I tried to study hard at home. Secondly, I learned about caves. I understood that there are two types of caves. (Student 5, Learning Log Week 10)

In week 15, student 5 reviewed her learning throughout the course.

There are many things I learned in this reading class during these fifteen weeks. First, I tried to memorize many business words in English. I especially learned about finance, for example, listed companies, annual report, revenue, and so on. Second, I am most interested in annual reports. An annual report has several sections. Third, I studied reading strategies. I understood its composition. In this way I learned a lot of things and I also want to study more. (Student 5, Learning Log Week 15)

Commentary

Student 5 referred to business and management texts and the vocabulary she learned through

weeks 5, 10 and 15. Throughout the course, student 5 regarded Business English as important learning. Also, in her learning log in week 15, she said she studied reading strategies. In her reflective comments submitted in week 12, she said she ultimately realized the usefulness of reading strategies. Her learning became more explicit at the end of the course.

Summary and Conclusions

In this article, the researcher investigated the student learning of metacognitive reading strategies in a sophomore EAP classroom, using student learning logs for collecting data and analyzing the data at the beginning, middle and end of the course. This paper first presented the background for the study and four research questions. Second, the relevant research was reviewed. The models of metacognitive reading strategies by O'Malley and Chamot (1990), Iwai (2011), Allen (2003) and Evans (2008) were shown. Third, the methods of the study, setting, participants, design of learning logs, teaching methodology, and data collection procedure, were described. Fourth, the results and discussion from five student learning logs written in weeks 5, 10 and 15 were provided. Qualitative data was used to illuminate metacognitive reading strategies learned throughout the course.

In my previous study (Kamijo, 2012), the evidence of student learning was based upon learning logs summarized as the evaluation at the end of the term. In the present research, the researcher attempted to extend the research design and investigated the students' learning from their learning logs in the beginning, middle and end of the course. In addition, the researcher attempted to investigate students' recognition about the business passages they read, and their approaches to resolve difficulties through the course. The student learning logs in the present research helpfully illustrated students' learning concerning how they defined metacognitive reading strategies and utilized the strategies developmentally, indicating their capability. Classroom teachers who want to teach metacognitive reading strategies for EAP might be able to use student learning logs at the beginning, middle and end of the course and assess student learning with other standard assessment methods such as tests and surveys.

Despite the implications of the study, this research has limitations. Additional qualitative research methods should be used to illuminate the outcomes of the present study for further investigation. The Auerbach and Paxton (1997) study included interviews, think-aloud protocols, comprehension tests, and a student paper. Future research using interviews might allow students to describe the development of their learning elaborately through the semester, as interviews could be used to complement the data from evaluative student learning logs. Future research into metacognitive reading strategies might also be on a larger scale. Another research task might investigate how students could make greater progress through reading and writing in EAP. Classroom-based qualitative research designed in longer-term studies may be productive because researching increased student progress of metacognitive reading strategies would be invaluable for many teachers to advance EAP development.

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Appendix Teaching Objectives

The metacognitive reading strategies taught in the class

Surveying

Skimming a text, understanding the text type

Skimming a text to understand the general theme

Analyzing

Recognizing key features of a text, including the thesis statement and topic sentences

Recognizing key words, transitions, and examples

Determining important points

Understanding inferences

Outlining

Marking and highlighting key textual and lexical features

Briefly outlining a text based upon the text analysis

Editing an outline after carefully rereading a text

Summarizing

Paraphrasing in writing a summary

Writing a summary based upon the analysis

Using transitions to clarify the logic of a summary

Checking grammar and sentence structure

