

Middle School Students' Use of Strategies for Critical Reading:

A Comparison Between Student Performance and Teacher Expectations

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I. Introduction

Critical thinking is a necessary condition for education (McPeck, 1981). Based on this importance, the Korean national curriculum classifies critical thinking as a core competence in Korean language education (MOE, 2015). Critical reading had been a central component of reading education before critical thinking became an emerging issue in the educational world, and critical reading content has been highlighted and expanded in the national curriculum. Considering this trend, it is timely to check whether students perform critical reading in an effective way according to educational expectations.

On the other hand, one of the main concerns in reading education is strategy. The use of strategies can be a primary criterion for distinguishing between competent and poor readers (Baker & Brown, 1984). Additionally, abundant evidence that usage is related with effectiveness in reading comprehension has been presented (NRP, 2000). Reading strategy has three essentials: consciousness, goal-orientation, and flexibility. Therefore, using reading strategies well should mean setting a proper goal in light of the reader's context and adapting the method flexibly. In particular, critical reading requires high activeness, specific

criteria, and complex thinking on the part of the reader, so particular strategies are naturally required.

Although there are sufficient studies about the concepts or content of critical reading, guidelines clarifying how to read are lacking. The national curriculum does not indicate which method would be appropriate for a specific reading situation, but just gives non-specific directions; thus, teachers or students have to make decisions in general. Despite this difficulty, it is not considered a significant problem because there is little empirical research. Therefore, the purpose of this study is to investigate middle school students' use of strategies for critical reading and to identify the discrepancy between this usage pattern and the ideal one expected by teachers. In particular, this study targets middle school students who learned essential reading strategies, have basic reading abilities (Chall, 1996; Cheon, 1999), and will harden their reading attitude soon.

II. Strategies for Critical Reading

1. Characteristics of critical reading

Critical thinking ability is a desirable human trait (McPeck, 1981). After the late 1980s, efforts to relate critical thinking and education dramatically increased. Before then, critical reading had already played a significant role in reading education. Since the late 1940s, the notion of critical reading gained prominence in literacy instruction and research (Cervetti, Pardales, & Damico, 2001). Barrett (1976) formerly classified reading comprehension into literal comprehension, reorganization, inferential comprehension, evaluation, and appreciation. Among these, "appreciation" is relevant to critical reading. Readers critically accept

what they read by evaluating information with internal or external criteria (Barrett, 1976). This concept is deeply rooted in our national curriculum.

As critical reading has drawn more attention, its boundaries have been expanded. Recently, critical reading has begun to mean not only reading that evaluates appropriateness or validity by specific criteria, but also reasonable or reflective thinking that judges the authenticity or acceptability of information (Lee, 2010). Critical reading has a different base from “critical literacy,” which has also been in common use recently. According to Cervetti, Pardales, and Damico (2001: 10-11), the instructional goals of critical reading are the “development of higher level skills of comprehension and interpretation,” and those of critical literacy are the “development of critical consciousness.” Despite this distinction, these two terms are not distinguished these days. Beyond the dichotomy, Kwon (2011) argues that, by embracing the concept of critical literacy, critical reading can overcome its limitations and clarify its educational content.

Some studies pay attention to the relationship between critical reading and other types of reading. Han et al. (2001) argue that literal comprehension, inferential comprehension, and critical comprehension have a linear rather than independent relationship. Similarly, Basaraba (2013: 353-356) refers to literal comprehension as “bare bones,” inferential comprehension as “making meaning from the text,” and critical comprehension as “extending beyond the text.” For critical comprehension, readers need higher-level thinking because critical comprehension demands additional thinking processes, as well as literal and inferential comprehension. These facts mean that such a relationship also exists between readings based on these comprehensions. Kim (2001) presented this relationship in a diagram (see Figure 1).

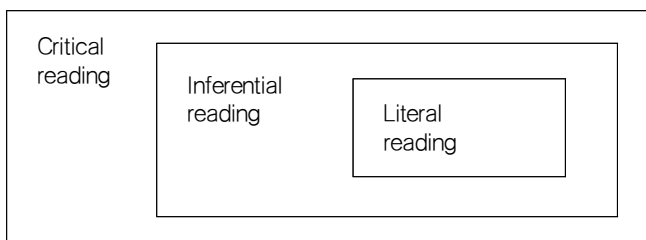


Figure 1. Relationships among literal reading, inferential reading, and critical reading (Kim, 2001: 72)

Figure 1 shows that inferential reading includes literal reading and critical reading includes inferential reading.

The perspectives on the characteristics of critical reading vary subtly across different studies. However, generally, some common points can be found. First, critical reading is active reading in which the reader evaluates the text. Second, a text's internal or external criteria can be applied for such an evaluation. Third, it demands more complicated and high-level cognitive effort than literal reading or inferential reading.

2. Strategies use for critical reading

"Strategy" is defined as "a general plan or set of plans intended to achieve something" (Collins Cobuild, 2006). In the education field, Dole, Nokes, and Drits (2009: 348) define cognitive strategy as "a mental routine or procedure for accomplishing a cognitive goal." In today's reading education, the term does not deviate from this definition. According to Pearson et al. (1992: 14), reading strategies refer to "conscious and flexible plans that readers apply and adapt to particular texts and tasks." Graves, Juel, and Graves suggest five characteristics of reading comprehension strategies: ① conscious efforts, ② flexibility, ③

wide applicability, ④ overtness or covertness, and ⑤ the ability to lead to higher-level thinking (Graves, Juel, & Graves, 2007).

Consequently, the essentials of reading strategies can be summarized as “consciousness,” “goal-orientation,” and “flexibility.” Strategic reading should be the process of considering specific contexts, setting a goal, and selecting appropriate reading methods. If a reader uses a method uniformly regardless of their contexts, it would be hard to be “really strategic.” Therefore, for critical reading, a reader should be pack suitable strategies with a clear awareness of their goal.

Despite the importance of the task, it is difficult to determine which strategies could be suitable for critical reading because of the lack of related studies. However, Park (2003) suggests that teachers should encourage students to read closely for critical reading purposes. Kim (2002) classified critical reading processes into “interpretation” and “reflection and readjustment.” The strategies for the first process are finding various possible interpretations, determining persuasive meaning, reexamining the reasonability of cognition, and considering the possibility of alternative meanings and the weaknesses of the second-best option. Additionally, the strategies for the second process are reconsidering views, understanding interests, and evaluating the coherence of ideas and the effectiveness of the structure (Kim, 2002).

Pressley and Afflerbach (1995) investigated strategies used by proficient readers and categorized the strategies into the following components: identifying and learning text content, monitoring, and evaluating. Their findings are important because they indicate that proficient readers use various evaluation strategies to comprehend texts actively and critically (see Pressley & Afflerbach, 1995: 74-78).

Table 1. Reading strategies inventory (Lee, 2016: 17)

| Upper-level strategies | Mid-level strategies | Specific strategies |
|----------------------------------------------------|-------------------------------------|---------------------------------------------------------------|
| 1. Identifying & learning text content | 1) Predicting | ① Overviewing before reading |
| | | ② Generating an initial hypothesis about text |
| | | ③ Predicting subsequent content or structure (during reading) |
| | 2) Identifying | ④ Looking for key words |
| | | ⑤ Making notes (e.g., listing, outlining, diagramming) |
| | | ⑥ Summarizing |
| | 3) Integrating & Inferring | ⑦ Relating text content to different parts |
| | | ⑧ Relating text content to prior knowledge |
| | | ⑨ Inferring the author's intentions or views |
| 2. Monitoring | 4) Self- recognizing | ⑩ Recognizing reading speed |
| | | ⑪ Recognizing loss of concentration |
| | | ⑫ Recognizing level of understanding |
| | 5) Strategy adjusting | ⑬ Finding effective strategies |
| | | ⑭ Recognizing strategies in use |
| 3. Evaluating | 6) Content accepting | ⑮ Adapting reading method |
| | | ⑯ Verifying consistency with prior knowledge |
| | | ⑰ Evaluating reliability of content |
| | 7) Expression evaluating | ⑱ Verifying consistency with reader's views |
| | | ⑲ Evaluating suitability of words or sentences |
| | | ⑳ Evaluating logic |
| | | ㉑ Evaluating goal conformity |

Lee (2016: 17) reorganized Pressley and Afflerbach's findings with reference to other studies (e.g., Brown & Day, 1983; Cunningham & Moore, 1986; Phillips, 1987; Blachowicz & Ogle, 2001; Park, 2003; Yoon, 2011; see Table 1).

Considering detailed content, the strategies in the Evaluating category are directly related to critical reading. However, as discussed earlier, critical reading demands other types of reading (e.g., Han et al., 2001; Kim, 2001; Choi, 2005; Basaraba, 2013). Thus, it is supposed that more strategies must be involved for effective critical reading.

3. The practice of strategy instruction for critical reading

The range of critical reading in the national curriculum has been expanded (Kim, 2014), and this tendency will be strengthened because the 2015 revised curriculum defined critical thinking as one of the core competences of Korean language education (MOE, 2015). In compliance with this ascribed importance, textbooks and the College Scholastic Ability Test (CSAT) require critical reading (Park, 2011; Park, 2014). However, there are no guidelines on how to teach students for critical reading.

Although, the guidance in the curriculum suggests that readers should use strategies depending on circumstances, it does not include details. As many as four achievement standards are directly related to critical reading in the middle school course. However, the guidance in current the curriculum lacks information about how students should go about meeting these standards. Teaching students how to use strategies for critical reading is entirely depend upon teachers. Besides, An (2009) pointed out that the critical reading contents for the Korean Language subject have no validity, and they cannot facilitate strategy instructions.

In this situation, empirical investigations are needed to find out whether the students are learning the procedural knowledge for critical reading effectively. As the first step, this study intends to investigate middle school students' strategies—use pattern for critical reading, and to identify discrepancy between this usage pattern and the ideal as expected by teachers. Thus, the main research questions guiding this study were the following:

1. What strategies—using patterns do middle school students' use for critical reading?
2. Is there discrepancy between middle school students' real strategies—use patterns for critical reading and the ideal as expected by teachers?

III. Method

1. Participants

Student participants were 69 ninth grade students, and data on 56 were used for the analysis, excluding blank and insincere responses. Teacher participants were 16 current Korean Language teachers in secondary schools. Detailed information about these participants is shown in Table 2.

Table 2. Information about participants

| | Male | Female | Total |
|---------|------|--------|-------|
| Student | 27 | 29 | 56 |
| Teacher | 9 | 7 | 16 |

The student participants were recruited from two different middle schools in Seoul. One of the two schools is located in a district that has high educational fervor and economic status. The other is located in a district that lacks educational fervor and economic status. However, there was no significant difference between their performances in critical reading tasks in this experiment ($t=1.062$, $p=.291$). The teachers' careers length ranged from 2 years to 13 years.¹

1 One class of each the schools was selected, excluding abnormal classes. They included overall students who are in the various Korean Language achievement.

2. Materials

To investigate middle school students' use of strategies for critical reading, this study used the reading tasks material and self-report questionnaire of Lee (2016). This material included the guide, reading passages, and tasks. The material introduced after-reading tasks at the beginning thus naturally guide the readers to read passages under the specific context. The material provided two different reading passages: "Picture, the way to find my own (total of 194 words)" and "Kanghwa tidal power plant, the solution of energy problems (total of 168 words)." The two reading passage were informational texts and selected from the previous National Assessment of Educational Achievement for ninth grade students. The after-reading tasks required reader's critical comprehension, consisting of three evaluation types: expressions, value, and contents. These types were selected among various criteria from preceding studies (e.g., Barrett, 1976; Han et al., 2001; Choi, 2005). After reading and completing tasks, the students reported reading strategies used for the reading. The self-report questionnaire asked how much they used each of the 21 strategies given in Table 1. The students rated the level from 0 to 5.

This study also reconstructed the questionnaire for students in order to investigate teachers' expectations. The teachers' questionnaire, at the beginning, illustrated the tasks and reading passages which were previously fulfilled by the students, and asked how much middle school readers should use each of the 21 strategies. The teachers, through the brief illustration, grasped the context that the students were placed, and also rated the level from 0 to 5.

3. Procedure

Data were collected between June and September 2015. The student investigation was conducted with the active cooperation of Korean language teachers. The teachers provided the reading tasks materials to their students in a familiar environment. The students were familiar with the strategies we offered. Students' average tasks score after reading was 79.5%. This indicates that they read the passages faithfully. The teacher investigation was conducted under the guidance of the researcher. The participants of both groups fulfilled the material in order. For the respondents' sincere response, a confidentiality was notified in advance. These investigations collected two types of scores as below.

- Student score: The level of students' actual use of strategies for critical reading.
- Teacher score: The level of students' ideal use as expected by teachers.

4. Statistical Analysis

The collected quantitative data were processed using SPSS 21.0 software. To discern whether the student score on a specific strategy was significantly high or low in comparison with the average (of the 21 strategies), a one-sample *t*-test was used.² The average of student scores was 2.89. In addition, to compare the scores, a Mann-Whitney *U* test was used. The sample size of teachers was not large enough to presume a normal distribution, and there was a gap in sample sizes between the students and teachers. Thus, the Mann-Whitney *U* test was suitable because the method could identify statistically significant differences in such conditions.

² According to the central limit theorem, the student scores are assumed to follow a normal distribution.

IV. Results

1. Middle school students' strategies-use patterns for critical reading

Prior to the main investigation, it was considered whether the style and content of the passages could have exogenous influence on the students' strategies use patterns. A paired t -test was used to check this. At the .05 level, a significant difference in the student scores of *Relating text content to different parts* (Strategy ⑦; $t=2.071$, $p=.043$) and *Recognizing level of understanding* (Strategy ⑫; $t=2.726$, $p=.009$) was observed. However, no significant difference was observed with the other 19 strategies. This result indicates that the patterns were almost the same regardless of passages.

A Spearman's correlation test was used to determine which reading strategies are correlated with the students' task results (after reading tasks score). As a results, a significant positive correlation was observed for *Verifying consistency with reader's views* (Strategy ⑮; Spearman's $\rho=.216$, $p=.022$), *Evaluating logicity* (Strategy ⑳; Spearman's $\rho=.228$, $p=.016$), and *Evaluating goal conformity* (Strategy ㉑; Spearman's $\rho=.189$, $p=.046$). This means that *Evaluating* strategies are connected to critical reading performance.

To identify specific strategies whose student scores were significantly higher or lower than the average, a one-sample t -test was used (see Table 3).

Table 3. A comparison between student scores and average score by specific strategy

| Upper level | Mid level | Specific level | N | M | SE | MD | t | p |
|-------------------------------------------|-------------------------------|------------------------------------------------|-----|------|-------|--------|---------|------|
| 1. Identifying & learning text content | 1) Predicting | ① Overviewing before reading | 111 | 3.90 | 1.183 | 1.011 | 9.004 | .000 |
| | | ② Generating an initial hypothesis about text | 112 | 3.30 | 1.432 | .414 | 3.056 | .003 |
| | | ③ Predicting subsequent content or structure | 112 | 3.04 | 1.365 | .155 | 1.199 | .233 |
| | 2) Identifying | ④ Looking for key words | 111 | 2.23 | 1.458 | -.656 | -4.738 | .000 |
| | | ⑤ Making notes | 112 | 1.47 | 1.488 | -1.417 | -10.073 | .000 |
| | | ⑥ Summarizing | 111 | 2.69 | 1.634 | -.196 | -1.266 | .208 |
| | 3) Integrating & Inferring | ⑦ Relating text content to different parts | 112 | 2.88 | 1.537 | -.015 | -.103 | .918 |
| | | ⑧ Relating text content to prior knowledge | 112 | 3.13 | 1.379 | .244 | 1.872 | .064 |
| | | ⑨ Inferring the author's intentions or views | 112 | 3.10 | 1.342 | .208 | 1.642 | .103 |
| 2. Monitoring | 4) Self-recognizing | ⑩ Recognizing reading speed | 112 | 2.65 | 1.517 | -.238 | -1.662 | .099 |
| | | ⑪ Recognizing loss of concentration | 112 | 2.69 | 1.583 | -.203 | -1.354 | .178 |
| | | ⑫ Recognizing level of understanding | 112 | 3.71 | 1.262 | .824 | 6.911 | .000 |
| | 5) Strategy adjusting | ⑬ Finding effective strategies | 112 | 3.12 | 1.592 | .226 | 1.502 | .136 |
| | | ⑭ Recognizing strategies in use | 112 | 2.38 | 1.689 | -.506 | -3.172 | .002 |
| | | ⑮ Adapting reading method | 112 | 2.29 | 1.664 | -.595 | -3.787 | .000 |
| 3. Evaluating | 6) Content accepting | ⑯ Verifying consistency with prior knowledge | 111 | 3.08 | 1.579 | .191 | 1.275 | .205 |
| | | ⑰ Evaluating reliability of content | 111 | 2.83 | 1.651 | -.061 | -.390 | .697 |
| | | ⑱ Verifying consistency with reader's views | 112 | 2.99 | 1.602 | .101 | .668 | .506 |
| | 7) Expression evaluating | ⑲ Evaluating suitability of words or sentences | 112 | 2.55 | 1.518 | -.336 | -2.346 | .021 |
| | | ⑳ Evaluating logic | 112 | 3.19 | 1.486 | .298 | 2.119 | .036 |
| | | ㉑ Evaluating goal conformity | 112 | 3.07 | 1.587 | .181 | 1.210 | .229 |

*Test value=2.89; ■ Significantly high, ▨ Significantly low

Table 3 shows that there are significant differences in nine strategies. At the .05 level, *Overviewing before reading* (Strategy ①; $t=9.004$, $p=.000$), *Generating an initial hypothesis about text* (Strategy ②; $t=3.056$, $p=.003$), *Recognizing level of understanding* (Strategy ⑫; $t=6.911$, $p=.000$), and *Evaluating logic* (Strategy ⑳; $t=2.119$, $p=.036$) were used significantly more than the average.

On the other hand, *Looking for key words* (Strategy ④; $t=-4.799$, $p=.000$), *Making notes* (Strategy ⑤; $t=-103.073$, $p=.000$), *Recognizing strategies in*

use (Strategy ⑭; $t=-3.172$, $p=.002$), *Adapting reading method* (Strategy ⑮; $t=-3.787$, $p=.000$), and *Evaluating suitability of words or sentences* (Strategy ⑰; $t=-2.346$, $p=.003$) were used significantly less than average level.

2. Middle school students' strategies-use patterns for critical reading and teachers expectation

Figure 2 shows the discrepancy between middle school students' real strategies—use pattern and the ideal as posited by teachers.

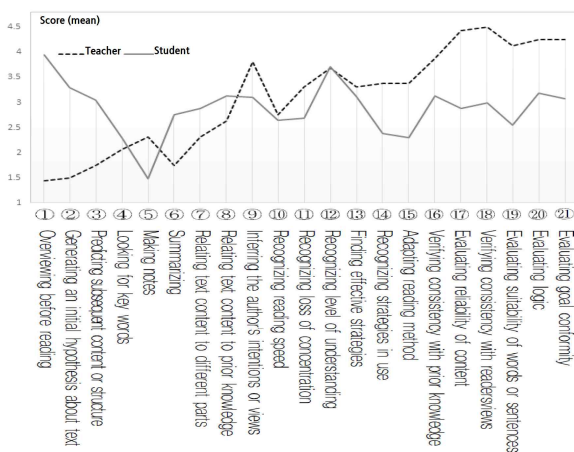


Figure 2. The patterns of student scores and teacher scores

This graph indicates the level of discrepancy on each strategy. The teachers responded that readers should use strategies in the *Evaluating* category to a greater extent and use strategies in the *Identifying and learning text content* category to a lesser extent. However, the students used strategies from among the three categories quite evenly (see Figure 2).

To specify the discussion, a Mann–Whitney U test used. There were significant differences at the .05 level in 14 strategies (see Table 4).

Table 4. A comparison between student scores and teacher scores

| Upper level | Mid level | Specific level | M | Mean Rank | U | Z | p |
|----------------------------------------|----------------------------|------------------------------------------------|------------------------------|----------------|---------|--------|------|
| 1. Identifying & learning text content | 1) Predicting | ① Overviewing before reading | Teacher 1.44 Student 3.90 | 70.54 18.66 | 162.500 | -5.466 | .000 |
| | | ② Generating an initial hypothesis about text | Teacher 1.50 Student 3.30 | 69.51 29.44 | | | |
| | | ③ Predicting subsequent content or structure | Teacher 1.75 Student 3.04 | 68.50 36.53 | 448.500 | -3.299 | .001 |
| | 2) Identifying | ④ Looking for key words | Teacher 2.06 Student 2.23 | 64.48 60.69 | 835.000 | -.393 | .694 |
| | | ⑤ Making notes | Teacher 2.31 Student 1.47 | 61.92 82.53 | 607.500 | -2.138 | .032 |
| | | ⑥ Summarizing | Teacher 1.75 Student 2.69 | 66.85 44.25 | 572.000 | -2.340 | .019 |
| | 3) Integrating & Inferring | ⑦ Relating text content to different parts | Teacher 2.31 Student 2.88 | 66.17 52.81 | 709.000 | -1.375 | .169 |
| | | ⑧ Relating text content to prior knowledge | Teacher 2.63 Teacher 3.13 | 66.08 53.41 | 718.500 | -1.319 | .187 |
| | | ⑨ Inferring the author's intentions or views | Student 3.81 Teacher 3.10 | 61.83 83.16 | 597.500 | -2.207 | .027 |
| 2. Monitoring | 4) Self-recognizing | ⑩ Recognizing reading speed | Student 2.75 Teacher 2.65 | 64.26 66.16 | 869.500 | -.194 | .846 |
| | | ⑪ Recognizing loss of concentration | Student 3.31 Teacher 2.69 | 62.73 76.88 | 698.000 | -1.450 | .147 |
| | | ⑫ Recognizing level of understanding | Student 3.69 Teacher 3.71 | 63.29 72.97 | 760.500 | -1.016 | .309 |
| | 5) Strategy adjusting | ⑬ Finding effective strategies | Student 3.31 Teacher 3.12 | 63.59 70.88 | 794.000 | -.751 | .453 |
| | | ⑭ Recognizing strategies in use | Student 3.38 Teacher 2.38 | 61.83 83.19 | 597.000 | -2.192 | .028 |
| | | ⑮ Adapting reading method | Student 3.38 Teacher 2.29 | 61.65 84.44 | 577.000 | -2.331 | .020 |
| | 6) Content accepting | ⑯ Verifying consistency with prior knowledge | Teacher 3.88 Student 3.08 | 61.25 83.09 | 582.500 | -2.274 | .023 |
| | | ⑰ Evaluating reliability of content | Teacher 4.44 Student 2.83 | 59.16 97.56 | 351.000 | -3.986 | .000 |
| | | ⑱ Verifying consistency with reader's views | Teacher 4.50 Student 2.99 | 59.74 97.84 | 362.500 | -3.932 | .000 |
| 3. Evaluating | 7) Expression evaluating | ⑲ Evaluating suitability of words or sentences | Teacher 4.13 Student 2.55 | 60.00 95.97 | 392.500 | -3.694 | .000 |
| | | ⑳ Evaluating logic | Teacher 4.25 Student 3.19 | 60.78 90.56 | 479.000 | -3.083 | .002 |
| | | ㉑ Evaluating goal conformity | Teacher 4.25 Student 3.07 | 60.69 91.16 | 469.500 | -3.142 | .002 |
| | | | | | | | |

In the *Identifying and learning text content* category, the Student scores of *Overviewing before reading* (Strategy ①; $U=162.500$, $p=.000$), *Generating an initial hypothesis about text* (Strategy ②; $U=385.000$, $p=.000$), *Predicting subsequent content or structure* (Strategy ③; $U=-2.346$, $p=.001$), and *Summarizing* (Strategy ⑥;

$U=572.000$, $p=.019$) were used significantly more by the students than the teachers' expectation. On the other hand, *Making notes* (Strategy ⑤; $U=607.500$, $p=.032$) and *Inferring the author's intentions or views* (Strategy ⑨; $U=597.500$, $p=.027$) were used significantly less by the students than the teachers' expectation.

In the *Monitoring* category, there was only a little difference between patterns. However, *Recognizing strategies in use* (Strategy ⑭; $U=597.000$, $p=.028$) and *Adapting reading method* (Strategy ⑮; $U=577.000$, $p=.020$) were used significantly less by the students than the teachers' expectation.

All strategies in the *Monitoring* category, *Verifying consistency with prior knowledge* (Strategy ⑯; $U=582.500$, $p=.023$), *Evaluating reliability of content* (Strategy ⑰; $U=351.000$, $p=.000$), *Verifying consistency with reader's views* (Strategy ⑱; $U=362.500$, $p=.000$), *Evaluating suitability of words or sentences* (Strategy ⑲; $U=392.000$, $p=.000$), *Evaluating logicality* (Strategy ⑳; $U=479.000$, $p=.002$), and *Evaluating goal conformity* (Strategy ㉑; $U=469.500$, $p=.002$), were used significantly less by the students than the teachers' expectation.

V. Discussion

The purpose of this study was to identify middle school students' strategies—use patterns for critical reading and to discover discrepancies between the actual pattern and teachers' expectations. Generally, the middle school students used the strategies evenly regardless of the three categories. However, teachers thought that they should concentrate on the strategies in the *Evaluating* category for effective critical reading. Considering the details, more discrepancies were found, as discussed below.

1. Students' reading strategies-use patterns

Among the *Identifying and learning text content* category, the students actively used *Predicting* strategies (e.g., strategy ①, strategy ②). These strategies might partially help critical reading (e.g., Pressley & Afflerbach, 1995; Kim, 2002). According to Pressley and Afflerbach (1995) good readers grasp text's characteristics at the beginning and establish their perspectives in advance. In addition, such strategies help comprehension, vitalize thinking, and activate reading attitudes (Lee, 2001). Meanwhile, they did not actively used *Identifying* strategies in the category. This means that they concentrated on understanding the overall text rather than specific contents.

The students tried to monitoring their understanding (e.g., Strategy ⑫), but such efforts did not extend to strategy adjusting (e.g., Strategy ⑭, Strategy ⑮). According to Lee (2016), middle school students do not use reading strategies flexibly because they do not feel the necessity to do so. The above results indicate that such an attitude is also apparent in critical reading.

They did not use the strategies in the *Evaluating* category enough. Considering the concept of critical reading and students' task achievements in this study, such strategies are directly connected to critical reading. However, they used almost all strategies in the *Evaluating* category moderately. Although, the students tried to evaluate logicity of text (e.g., Strategy ㉔), they used strategies for Evaluating suitability of words or sentences to a somewhat lesser degree (e.g., Strategy ㉑) in comparison to other strategies.

2. A comparison to the expectations of teachers

The teachers tended to think many strategies in the *Identifying and learning text content* category are less important, which differed from students' actual use pattern. However, the teachers thought it is very important to identify hidden meanings (e.g., Strategy ⑨). The Students did not meet the expectation, although they used the strategy a lot compared to others. *Making notes* (Strategy ⑤) was also among strategies that the students use less.³ Although it was also statistically significant, the teachers did not consider it as an important strategy either.

Those teacher's perspectives suggest that strategies in the *Identifying and learning text content* category except Strategy ⑨ are less important for critical reading. However, this could be a hasty conclusion. As mentioned above, the *Predicting* strategies partly help critical reading. In addition, to understand explicit as well as implicit information can be crucial (e.g., Park, 2003). Critical comprehension is based on literal and inferential comprehension (Han et al., 2001; Kim, 2001; Choi, 2005; Basaraba, 2013). In case of mature readers, they are skilled in those basic processes. However, pre-mature readers may still need these strategies for understanding superficial meaning.

In the *Monitoring* category, the teachers thought that, for effective critical reading, the students should use strategies actively and flexibly. They responded that the readers should actively use *Strategy adjusting* strategies. Nevertheless, the students' actual strategies-use was in opposition to the expectation (e.g., Strategy⑭, Strategy⑮). This uniform attitude makes their reading methods deviating from the purpose (Lee, 2016).

The largest gap was revealed in the *Evaluating* category. The

³ This might be because it use up much physical effort and time.

teachers thought the students should use every strategy in the category at the highest level. However, the students' performance fell short of such expectation level. These findings indicate, above all, that middle school students should be encouraged to use more *Evaluating* strategies in order to improve their critical reading abilities.

These results mean that the instructions in critical reading and reading strategies have not been effective enough. As discussed above, the Korean curriculum lacks information about how teachers can be taught procedural knowledge concerning critical reading. In addition, contents for critical reading education are not meeting its purpose (An, 2009). Thus, more practical standards and guidance must be offered, which makes such education valid. Teachers also should be aware that these problems are happening to their class and make efforts to find a better instruction.

VI. Conclusions

This study investigated middle school students' use of strategies for critical reading and identified any discrepancies between this usage pattern and the ideal as expected by teachers. The results based on three categories, *Identifying and learning text content*, *Monitoring*, and *Evaluating*, are as follows.

First, in general, the middle school students evenly used the three categories. They did not make relatively much use of strategies in the *Evaluating* category that directly related to critical comprehension.

Second, the middle school students excessively used strategies in the *Identifying and learning text content* category. However, *Inferring the author's intentions or views* (Strategy ⑨) was not used much, while teachers indicated that the students should use it a lot. This result

shows that teachers need to encourage students to use strategies for identifying implicit information rather than explicit information.

Third, the middle school students used *Strategy adjusting* strategies less than the teachers' expectation. The students tried to use strategies for checking their reading situations, but the efforts did not extend to modifying problems with their reading. Therefore, instructions should be designed to effectively change students' attitude: It should convince students that adapting strategies could help their critical reading.

Fourth, the middle school students used every strategy from the *Evaluating* category less than the teachers' expectation. Among the three categories, the *Evaluating* category is directly related to critical comprehension and has high likelihood to help reader's critical reading. Thus, bridging the gap in this category should be a top priority.

Lastly, we also need to cogitate that the teachers' expectation level is appropriate. Especially, the teachers thought that strategies in the *Identifying and learning text content* category unessential for critical reading. When considering the preceding discussions, it is clear that these strategies also partially contribute to adolescent readers' critical reading. Teachers should consider what strategies might be needed for the student's critical reading from the perspective of incomplete readers.

The main purpose of this study was to reveal the inadequacy of current strategies education for critical reading, and the results demonstrated that they are not effective enough. Therefore, curriculum makers and educators should be aware of this issue. This study has a limitation that it cannot definitely clarify which reading strategies are more helpful for critical reading. In order to making clear guidelines, academic world should bring more attention to establishing foundation.

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ABSTRACT

Middle School Students' Use of Strategies for Critical Reading:

A Comparison Between Student Performance and Teacher Expectations

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The purpose of this study was to identify middle school students' strategies—use patterns for critical reading and to discover discrepancies between the actual pattern and teachers' expectations. This study analyzed 56 self-reported data from ninth grade students after critical reading and 16 surveyed data from secondary school Korean language teachers. This investigation was based on an inventory of 21 specific reading strategies in three categories: identifying and learning text content, monitoring, and evaluating.

Results showed considerable discrepancies between student strategies—use patterns and teacher expectations. Generally, The the students used the strategies evenly regardless of the three categories. In contrast, the teachers thought that these readers should use strategies in the Identifying and learning text content category to a lesser extent, and should instead use strategies in the Evaluating category to a greater extent. In addition, the students actively used strategies for predicting text and identifying explicit information, but they did not as much for adjusting strategy and inferring implicit perspectives, as contrasted with the teacher's expectation.

These discrepancies indicate that the strategy for critical reading is being instructed ineffectively in school classes.

KEYWORDS critical reading, reading strategy, evaluation strategy, middle school reader, Korean language teacher.