Improving Grade 7 Students' Critical Reading Through Explicit Instruction of Critical Thinking

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The proliferation of mis/disinformation and the propagation of biases and prejudices require reading from a critical stance. To read critically, one needs to think critically about texts. By reading critically, one exercises the power to question, challenge, and reflect on the ideals and even the status quo (re)presented in texts. This quasi-experimental pretest-posttest within-subjects study aimed to investigate whether the explicit instruction of critical thinking skills could improve critical reading. A class of 32 seventh graders was exposed to explicit critical thinking instruction for 17 sessions across six weeks, focusing on Paul and Elder's (2008) elements of reasoning. Paired samples t-test results revealed a significant increase in critical reading after the intervention. The top three critical reading components with the highest mean gains were: 1) examining arguments or the language of the text, 2) identifying implications or consequences, and 3) identifying the author's purpose or motive. It is concluded that explicit instruction of critical thinking is effective in developing critical reading.

Keywords: *explicit instruction, critical reading, critical thinking*

Introduction

Considering the needs and characteristics of today's learners, the Generation Z, in this "Knowledge age", the K to 12 Basic Education Curriculum for English recognizes the value of developing critical literacy among Filipino learners as one of its guiding principles and the importance of developing their thinking skills—critical, creative, and metacognitive—as one of its key components (Department of Education, 2016, p.7). The deliberate inclusion of critical literacy and critical thinking in the K to 12 Curriculum intends to provide students with skills they can use in solving problems they encounter in and out of school (Briones, 2019). This may also be an attempt to bridge the gap between basic and higher education since producing students who are critical readers and thinkers is one of the fundamental goals of tertiary education (Haryati & Hidayati, 2017; Zhou et al., 2015). Learning how to read critically must begin early (Sipple, 1970) and should be taught not only in the later years of schooling and not only to students performing well academically ("Connecting Practice and Research," 2009; Sipple, 1970). However, the K to 12 Basic Education Curriculum shows that critical reading is part of the content standard in the second quarter of English 10 only, that is, "The learner demonstrates understanding of … how to use strategies in critical reading, listening, and viewing, and affirmation and negation markers to deliver impromptu and extemporaneous speeches" (Department of Education, 2016, p. 223). How then will the students be prepared to meet such demand without enough exposure and practice to learn and use skills pertinent to critical reading? Also, how will critical thinking be taught to and learned by Filipino learners?

A reading classroom is a viable venue where students can be active readers who are decoders, meaning makers, text users, and text critics (Luke & Freebody, 1999, as cited in McLaughlin & DeVoogd, 2004). To be able to read critically, they need "the ability and the deliberate inclination to think critically about—to analyze and evaluate—information sources" (McLaughlin & DeVoogd,

2004, p.53) or "must deal with it as a thinker" (Stauffer, 1970, as cited in Sipple, 1970, p.6); ask about the author and purpose; and present multiple ways of viewing the text, including the perspectives of the marginalized or the oppressed (McLaughlin & DeVoogd, 2004).

Through the explicit instruction of critical thinking in a reading class, this study attempted to answer the aforementioned questions and responded to the challenge of developing young critical readers, specifically Filipino high school students, who can be "genuinely intelligent citizens" (Atlick, 1960 as cited in Sipple, 1970, p. 18)

The results of the study may benefit teachers who should take a critical stance and make conscious efforts in developing critical thinking and reading skills among learners and in choosing materials that may lend themselves to inquiry, analysis, and discussion. The study may be useful to curriculum developers, stakeholders in education, and the government to rethink how critical thinking and reading skills are taught and developed in the basic education curricula.

Critical Thinking

One of the higher-order thinking skills, critical thinking is indeed expected among the learners of the 21st century. Teaching and learning critical thinking is both transformative and liberating for it develops independence of thought and continuous reflection in students (The APA Delphi Report, 1990, as cited in Facione, 2020; Swartz et al., 2008, as cited in Bonney & Sternberg, 2011). Developing critical thinkers is an essential aim of institutions of learning.

According to Facione (2020), critical thinking, "a form of thoughtful judgment or reflective decision-making," (p.10) is inevitable since individuals need to make judgments on how to succeed in certain tasks, determine truth from lies, or identify what to accept or not. It is metacognitive, allowing learners to reflect and think about thinking (Nosich, 2005) and apply their learned skills to their thinking (Mulnix, 2012).

This reflective nature of critical thinking is traced back to and compared with John Dewey's reflective thinking and inquiry (Bonney & Sternberg, 2011; McGregor, 2007) and described as an active, thoughtful examination of one's belief or knowledge, what supports that belief or knowledge, and possible conclusions it can lead to (Dewey, 1910).

Other researchers described critical thinking as a cognitive process that involves the use of thinking skills (Ennis, 1993; Facione, 2013; Nosich, 2005). Paul and Elder (2008), on the other hand, summarized critical thinking skills into eight elements of thought or reasoning that one has to identify, ask questions about, and reflect on. These elements of reasoning are 1) point of view (frame of reference, perspective); 2) purpose (objectives, goals, desired outcomes, intentions, or functions); 3) question at issue (problem, topic, or point); 4) assumptions (background theory, what is given, what is taken for granted, or axioms); 5) implications and consequences (what follows, costs, and benefits); 6) information (data, evidence, or observations); 7) concepts (organizing ideas or categories); and 8) conclusions and interpretations (inferences, solutions, or decisions arrived at). A person who thinks critically considers all these elements and how these interact with each other as one keeps in mind and follows the universal standards of accuracy, precision, relevance, depth, breadth, logic, significance, and fairness (Bassham et al., 2008; Bonney & Sternberg, 2011; Nosich, 2005; Paul & Elder, 2008). Nosich (2005) proposed the inclusion of two important factors: 1) context where the thinking takes place and 2) alternatives that are always present as one makes choices in reasoning. Along with these cognitive skills, critical thinking has to be combined with dispositions or attitudes towards critical thinking (Facione, 2020; Lai, 2011).

Advocates of critical thinking acknowledge the role and value of teaching students not only what to think but also how to think. Critical thinking, as described by Scriven and Paul (2008), is an "intellectually disciplined process" (as cited in Mulnix, 2010, p. 465) that can be taught and developed among learners (Lai, 2011), regardless of educational levels. By learning critical thinking skills, students will be equipped with effective tools to be reflective and independent thinkers.

Explicit Instruction

The role of explicit instruction in teaching and learning has never been undervalued. A "structured, systematic, and effective methodology" (Archer & Hughes, 2011, p. 1), explicit instruction involves the following steps: introduction, teaching or modeling, guided practice, independent practice, and application. The skill is introduced by giving examples or a review. During this part, the teacher discusses why, when, where, and how the skill is used. After the introduction, the skill is defined, modeled, and explained by the teacher. The students may be given guidelines on how to use the skill or strategy and examples of how the skill or strategy is used incorrectly or inappropriately. The third step is guided practice, during which the teacher and the students work on examples together. The teacher serves as a guide to help students apply the skill. In this part of the lesson, the teacher determines who among the students have difficulty understanding and using the skill and gives them appropriate feedback accordingly. What follows is independent practice, when students work on their own as they do the practice exercises. The final step is application, which gives students opportunities to use the skill in other situations or contexts (Ocampo, 1997; Tierney & Readence, 2005).

In explicit instruction, the teacher plays an active role in structuring the lesson (Duffy & Roehler, 1993) while guiding the students during the intensive development of a particular skill (Ocampo, 1997). This procedure entails the teacher's use of scaffolds and strategies or techniques to help students understand and independently use the skill (Archer & Hughes, \2011; Rubin & Opitz, 2007).

Explicit Instruction of Critical Thinking

Explicit instruction of critical thinking skills is

necessary and has to be infused across disciplines or subject areas. Moreover, these skills to be directly taught could be transferred to and used in other subjects or contexts (Fisher, 2001; McGuinness, 2000, as cited in McGregor, 2007). This then implies that teachers have to make sure that students should also know when or in what contexts they should think critically (Lipman, 2003 as cited in Bonney & Sternberg, 2011).

Fahim et al. (2012) examined how the teaching of critical thinking strategy affected the reading comprehension of EFL learners in Iran. The 240 second-year college students were enrolled in a reading comprehension class, and they were grouped into two (i.e., low and high proficiency) based on their TOEFL scores. Each group was further subdivided into critical and non-critical, from which females and males were grouped. All participants took the reading comprehension test with multiple-choice items as the pretest. For eight 90-minute sessions, the experimental group composed of those in the critical groups had training on critical thinking skills (interpretation, analysis, evaluation, inference, explanation, and self-regulation) and sub-skills proposed by Facione. The participants in the control group, on the other hand, had the traditional method for reading comprehension. After the treatment, the participants took the reading comprehension test as the posttest. The results of the posttest showed that there was a significant difference between the reading performance of the experimental and control groups. As cited in this study, the results were in agreement with the findings of Facione (1998 as cited in Fahim et al., 2012) that there is a positive correlation between critical thinking and reading comprehension and with the findings of Kurland (2006, as cited in Fahim et al., 2012) that critical thinking is necessary for critical reading.

Another study (Velayati et al., 2017) explored the difficulties of 100 second-year college students in using the following critical thinking skills: interpretation, analysis, evaluation, inference, explanation, and self-regulation. The results from the questionnaire and semi-structured interviews showed that the students encountered difficulty in applying the critical thinking skills because of their lack of practice, limited reading exposures, lack of mastery of the language, the implied meaning of the text, their prior knowledge, and limited vocabulary. It was recommended that students regularly practice critical thinking and teachers give enough opportunities to practice critical thinking in reading English texts inside or outside the reading classroom.

In the studies by Fahim et al. (2012) and Velayeti et al. (2017), critical thinking consisted of interpretation, analysis, evaluation, inference, explanation, and self-regulation, while critical thinking in the current study was defined and measured differently. It focused on identifying, asking about, and reflecting on Paul's eight elements of reasoning. Fahim (2012) found evidence of transferability of critical thinking to reading comprehension, whereas the current study looked into how explicit instruction of critical thinking could improve critical reading. Finally, unlike the two studies that involved EFL college learners, this study involved bilingual students learning in the Philippines.

Critical Reading

Similar to Freire's (1970) "reading the world," Rosenblatt (1995) wrote that understanding the words on the page is not enough for readers to understand a text. Readers must see the connection between the words of the text and the world itself. That understanding of a text involves the positioning of the readers and their experiences in their contexts and considering the historical, social, political, cultural, and ethical contexts of a particular text. Being aware of the author's values and assumptions stated or implied in the text, the readers having the critical stance are led to reflect and discover the assumptions and implications of their responses and judgment. As a result, the readers have a "more critical, questioning attitude and see the need to have a more reasoned foundation for their thoughts and judgments, a more consistent system of values" (Rosenblatt, 1995, p.114).

Reading from a critical stance allows the readers to use their background knowledge and experiences to see the relationship between their ideas and the ideas the author presented in the text (Luke, 1988; McLaughlin & DeVoogd, 2004). Critical readers recognize that the text is an author's means or a tool to express their ideas or views of the world (Ocampo, 1997).

Piekarz (1964, as cited in Schnell, 1978) highlighted the importance of literal meanings of texts, the readers making connections between these literal meanings and their experiences, the accurate identification of facts, interpretation, and evaluation in critical reading. Skills such as analyzing language structures (i.e., words, sentences, and paragraphs); making inferences; inferring from and interpreting the message, author, audience, purpose, and context; and responding to texts through restatement, description, and interpretation are applied primarily when one critically reads and thinks about a text (Kurland, 1995). These skills show progression in terms of the level of difficulty of the matter being studied.

Developing critical reading among classroom learners has taken different forms and approaches. In a local study conducted by Alipustain (2012), implicit instruction and explicit instruction were employed to find out how these two kinds of instruction could develop critical thinking skills in Social Studies of grade two students. The lessons focused on making inferences, identifying cause and effect, comparing and contrasting, and differentiating facts from opinions. Implicit instruction of these skills was used for the control group. The lesson had the following parts: pre-reading, during reading, discussion, enrichment activities, and evaluation. Included in the discussion part were engagement activities done in groups or as a class. These activities were processed during the discussion part of the lesson. The experimental group, on the other hand, was exposed to explicit instruction of the four critical thinking skills. The lesson followed this format: pre-reading, during reading, assessment, explanation, guided practice, independent practice, application, and evaluation. After thirty (30) sessions, the results showed that both implicit and explicit instructions were effective in developing students' critical thinking skills. Although both groups showed an improvement, it was found that students exposed to explicit instruction performed better compared to those who were exposed to implicit instruction.

NguMee Seng and Zaidah Zainal (2017) looked into the critical reading skills, specifically the sub-skills used by ten college students. The participants were taught critical reading skills and were asked to make a written response to a given text. The responses were analyzed using the Critical Reading Categorization Scheme and then subjected to the computation of number and percentage occurrences. Among the ten identified sub-skills, the three with the highest number of occurrences were: 1) extracting information from text, 2) using facts or examples to support arguments, and 3) stating opinions regarding the topic discussed. The authors concluded that the participants could respond critically to the text. It was recommended that critical reading sub-skills be incorporated into students' learning to help them improve academically.

Aim of the Study

The study sought to answer the question "Does explicit instruction of critical thinking improve students' critical reading?"

Method

Research Design

The study employed a quasi-experimental pretest-posttest within-subjects design. The participants were not randomly assigned because they were in their class section prior to the intervention. One heterogeneous class was exposed to explicit instruction of critical thinking. The research design is represented as follows:

O   X   O

Where:

O = Test on Critical Reading used as pretest

O = Test on Critical Reading used as posttest

X = Explicit instruction of critical thinking

Sample

The research was conducted in a laboratory school of a state university in Quezon City. The research locale was chosen mainly because of the heterogeneity of the sections/classes in each grade level (Student Handbook, 2015). Coming from different socioeconomic backgrounds, students had a diverse range of knowledge, skills, and abilities. Also, females and males in each grade level were distributed among the sections. In this study, the participants were a class of fifteen (15) females and seventeen (17) males, a total of 32 students.

The seventh graders, whose ages ranged from 12 to 13, were selected because those at ages 9 to 13 read to learn new ideas, knowledge, or information and to gain new experiences (Chall, 1983, as cited in Hermosa, 2002). In terms of Piaget's cognitive development, those at age 11 and beyond can deal with abstractions, hypotheses testing, and concept formation (Hermosa, 2002). They are also capable of considering perspectives different from their own (Beal, 1994).

Instrument

A researcher-made Test on Critical Reading (TCR) was used to gather quantitative data to determine the effects of the intervention. This served as the pretest and posttest in the study. The TCR was validated by two university professors who taught undergraduate and graduate reading education courses in a state university and a professor who taught English in the laboratory school of the same state university. The table of specifications for the TCR is presented in Table 1.

Table 1
Table of Specifications for Test on Critical Reading (TCR)

Critical Reading Component	Type of Items	Item Number (TOTAL)
Literal understanding of text	Multiple choice with justification	1, 9 (2)
Making connections between the reader's experiences and the material	Open-ended questions	7, 15 (2)
Examining or evaluating the text in relation to its historical, cultural, social, and/or political context	Multiple choice with justification Open-ended questions	3, 14 (2)
Identifying author's purpose or motive	Multiple choice with justification	2, 13 (2)
Identifying assumptions, biases, or hidden messages	Multiple choice with justification	4, 11 (2)
Examining arguments or the language of the text	Multiple choice with justification	5, 10 (2)
Identifying implications or consequences	Multiple choice with justification	6, 12 (2)
Considering multiple perspectives	Open-ended questions	8, 16 (2)

The components were based on the review of extant literature, particularly those written by Rosenblatt (1995). The texts used were an excerpt of a short story (an example of a traditional text) and an editorial cartoon (an example of non-traditional text). A combination of multiple-choice type of questions and open-ended ones was used. For the multiple-choice items, participants were asked to justify their answers to show what information from the texts was used or not used by the students to arrive at answers and how they processed their responses. Moreover, this type of format allowed answers to be different from those in the key if the answers were well justified (Ennis, 1993). The format recognizes that students have different backgrounds and interpretations of items. The open-ended questions were used to assess how students made connections between the texts and their experiences and how they read the texts based on contexts and from other perspectives.

The highest score for each item was five (5) points. For multiple-choice items, three (3) points were given for the best answer and two (2) points for the justification. For open-ended questions, five (5) was the highest possible score. The total score for TCR was 80 points. A researcher-made holistic rubric was used to assess if the ideas, views, and arguments in each justification were well-supported with evidence from the text, explanation, interpretation, or examples. For the open-ended questions, another holistic rubric was used to evaluate whether the answer reflected an excellent understanding of the text and all the ideas, views, and arguments in each justification were well-supported with evidence from the text, explanation, interpretation, or examples.

Intervention

The class time for English was used for the implementation of the intervention. Each session lasted for an hour (Tuesday and Thursday) or an hour and a half (Wednesday and Friday) depending on the day. In general, only three days in a week were allotted for the intervention so that the remaining day would be spent on other topics that students should learn for Grade 7 English (e.g., lessons on listening, speaking, writing, grammar, and assigned novel for the quarter). The intervention lasted for six (6) weeks, consisting of 17 sessions that lasted for 21.5 hours. Table 2 presents the different parts of each lesson.

Table 2
Parts of the Lesson

Weekly Plan	Activities	Details
Day 1	A. Pre-reading	This included unlocking of difficulties (concept, vocabulary, and/or background knowledge/information) and developing a purpose for reading (motivation and motive questions).
Day 1	B. During Reading	This involved the reading and discussion of the main text (short story, essay, or print advertisement).
Day 2 (could extend until Day 3)	C. Post-reading: Explicit Instruction of Critical Thinking 1. Introduction (and Review)	This included the teacher's giving of text-based examples that showed the use of the target element of reasoning.
Day 3 (or Day 4)	2. Teaching/Modeling	This involved the teacher explaining why, when, where, and how the element was used; modeling how to identify, ask about, and reflect on it; and leading the students to make generalizations about it.
	3. Guided Practice	This included scaffolded tasks/activities for the students to practice the skill, with teacher support, monitoring, and feedback (and reteaching, if necessary).
	4. Independent Practice	This included exercises, which students worked on independently.
	5. Application	This involved students' journal writing, meant to assess how they could apply the learned skill when reading an alternate text and evaluate their overall understanding of the lesson.

To illustrate how the teaching or modeling part of the lesson was done, below is an excerpt from Lesson 1:

"Although identifying the topic is a good start, we can make it clearer and more precise if we identify the question, issue, or problem being addressed by the author. This is necessary for us readers to understand how the author tries to address or present this question or issue in what we read.

We may ask ourselves, 'Given this topic/If this text is about _____, what then is the question, issue, or problem that the author tries to address in the text?'

Perhaps, the author tries to answer the question 'Is the family a reflection/microcosm of life in the community?' I have thought of this question because, in these paragraphs, the author presented the life of the narrator's family and the happenings

in the village during the difficult times. It is similar to zooming in and out to see the events in the narrative."

The explicit instruction of critical thinking focused on identifying, asking about, and reflecting on six elements of reasoning: issue/question/problem, point of view, purpose, information, inference, and assumptions. Concepts and implications/consequences, two of the eight elements of reasoning, were not taught due to time constraints—the intervention had to be cut short to accommodate the student teacher who would handle the class for their practicum. Consequently, the target two weeks that would have allowed students to practice the use of the eight elements of reasoning was likewise not implemented. Furthermore, the research schedule had to accommodate school activities such as students' periodic examination and a three-week vacation, which affected the continuity of the intervention. Thus, instead of 10 weeks, the intervention lasted for only six weeks. Table 3 shows the scope and sequence of intervention lessons.

Table 3
Scope and Sequence of the Intervention

Lesson No.	Texts	Explicit Instruction
		Target Elements
1	*Main text:* "My Father's Tragedy" by Carlos Bulosan (short story) *Alternate text:* "All is Well," a chapter from OCW by Carla M. Pacis (novel)	Issue, question, or problem
2	*Main text:* "Language, Learning, Privilege, Identity" by James Soriano (essay) *Alternate text:* "How my Sons Lost their Tagalog: Sulat para kay James Soriano" by Benjamin Pimentel (essay)	Issue, question, or problem Purpose
3	*Main text:* "You calling us 'wuss'" by Lian Nami Buan (essay) *Main text:* "Antisocial media" by Maria Monica Cueto (essay) *Alternate text:* "Facebook with Care: Social Networking Site Can Hurt Self-Esteem" by Stephanie Pappas (essay)	Issue, question, or problem Purpose Point of view
4	*Main text:* "About Ocean Adventure" from the website of Ocean Adventure (print advertisement) *Alternate text:* "Sadness behind the Smile" by PAWS (position statement)	Issue, question, or problem Purpose Point of view Information
5	*Main text:* "Stones" by Connie Jan Maranan (short story) *Alternate text:* "Dementia" (Parts 1 and 2) by Jessica Zafra (essay)	Issue, question, or problem Purpose Point of view Information Interpretation/Inference
6	*Main text:* Lucky Me (print advertisement) *Alternate text:* "Persistent Headaches" by Saridon (print advertisement)	Issue, question, or problem Purpose Point of view Information Interpretation/Inference Assumptions

Data Analysis

To answer the research question, the pretest and posttest mean scores in the TCR were subjected to t-test for paired samples to find out if there was a statistically significant difference in the pretest and posttest of the group. To investigate further the effects of explicit instruction of critical thinking on critical reading, the pretest and posttest mean scores in each component were also analyzed by looking into the mean gain for each component.

Results

Quantitative analysis

The pretest and posttest mean scores on the TCR were statistically analyzed using the t-test for paired samples. The results are shown in Table 4.

Table 4
TCR Pretest and Posttest Mean Scores

	N	Mean	SD	t	Df	Sig
Pre	32	30.250	9.854	-6.047	31	<.001*
Post	32	37.875	9.476			

Total Score: 80; *p* =<0.05

The data show that there was a highly significant increase in the students' critical reading scores from pretest (*M* = 30.250, *SD* = 9.854) to posttest (*M* = 37.875, *SD* = 9.476), *t*(31) = -6.05, *p* < 0.001. This suggests that explicit instruction of critical thinking, which Alipustain (2012) found effective in improving critical thinking skills, improved the students' critical reading. These results lend support to the claims of Fahim et al. (2012) that critical thinking, if directly taught, can be transferred to and used in other contexts and can improve one's reading comprehension.

Although the difference between the means of the pretest and posttest scores was statistically significant, the mean scores of students in the pretest (*M* = 30.250) and posttest (*M* = 37.875) were still below the passing mark of 40, fifty percent (50%) of the total score of 80 points. The reading comprehension difficulties of students could have affected the pretest and posttest scores in the TCR. As shown in Table 5, the students got the lowest scores for both pretest (*M* = 2.813) and posttest (*M* = 3.781) in the literal understanding of the text component of critical reading. This component of critical reading had a total score of 10 points. The two items on this component were about the literal understanding of an editorial cartoon and an excerpt of a short story. If the students had difficulty in getting the literal understanding of these texts, it could have posed difficulties In answering the other test items. Literal understanding, as well as inferential understanding, are prerequisites for an individual to read critically (McLaughlin & DeVoogd, 2004; Ocampo, 1997; Sipple, 1967). It is a limitation of the study that reading difficulties were not addressed before the intervention.

Table 5
TCR Pretest and Posttest Scores per Critical Reading Component

Critical Reading Components		Mean	Mean Gain
Literal understanding of text	Post-Pre	3.781 2.813	0.969
Identifying author's purpose or motive	Post-Pre	5.969 4.813	1.156
Examining or evaluating the text in relation to its historical, cultural, social, and/or political context	Post-Pre	4.469 3.344	1.125
Identifying assumptions, biases, or hidden messages	Post-Pre	4.000 3.875	0.125
Examining arguments or the language of the text	Post-Pre	5.750 4.438	1.313
Identifying implications or consequences	Post-Pre	4.188 2.938	1.250
Making connections between the reader's experiences and the material	Post-Pre	4.656 3.625	1.031
Considering multiple perspectives	Post-Pre	5.063 4.406	0.656

The TCR required students to write to justify their choices and to answer the open-ended questions. Students' writing abilities could have influenced their responses. As stated in Velayati et al. (2017), students' lack of mastery of the language can pose difficulty in using critical thinking in reading. Also, these responses were rated by the teacher-researcher only, without any external validation.

To probe further how the explicit instruction of critical thinking improved critical reading, the pretest and posttest mean scores in each component were analyzed. Table 5 summarizes the results. It shows that the top three critical reading components with the highest mean gains were:

1) examining arguments or the language of the text, 2) identifying implications or consequences, and 3) identifying the author's purpose or motive.

In terms of examining arguments or the language of the text, the increase in the mean score from pretest to posttest (Mean Gain = 1.313) could have been caused by the lessons on information in which students had to identify both information provided and not provided in the texts (i.e., "About Ocean Adventure," an advertisement). Students' ability to identify such information in a text necessitated their analyses of the language used (e.g., word choice, style, etc.) and arguments presented by the author. In the last three lessons, students were asked to identify pertinent

information (including those not provided by the author) and use these pieces of information in identifying the other elements, particularly inferences and assumptions.

The lessons on information, inferences, and assumptions could have contributed to the increase in the component of critical reading, identifying implications or consequences (Mean Gain = 1.250). The lesson on purpose, as well as the number of exposures of this element of reasoning (five out of six lessons), could have contributed to the improvement in students' identification of the author's purpose or motive (Mean Gain = 1.156). Likewise, the improvement in the other components may be attributed to the elements of critical thinking taught during the intervention: issue/question/problem, purpose, point of view, information, interpretation/inference/conclusions, and assumptions (see Table 5). The results lend support to the claims of Beyer (1987, as cited in Kassem, 2000) that in explicit teaching, students' having more time and chances to use learned skills allows improvement in the transfer of these skills in other contexts.

Although identifying, asking about, and reflecting on assumptions were taught to the students, the component identifying assumptions, biases, or hidden messages had a low mean gain (0.125). Students could have had difficulty applying critical thinking in understanding the implied meaning in text, which could have been affected by their lack of background knowledge as pointed out by Velayati et al. (2017). As claimed by Luke (1988) and McLaughlin and DeVoogd (2004), critical readers need to use their prior knowledge to find connections between their ideas and the ideas presented in the reading material. One methodological factor to consider was the duration of the intervention. Assumption, as an element of reasoning, was the sixth and the last to be taught. Unlike the other elements that had at least two exposures, that is, used by students explicitly along with the other elements, assumptions had only one exposure in the intervention. Sufficient practice in other contexts and opportunities for the mastery or automaticity of this skill was not provided

(Duffy & Roehler, 1993).

In the same manner, even if students were exposed to the identification of, asking about, and reflecting on one's point of view, including that of the author, the component considering multiple perspectives had only a small increase (Mean Gain = 0.656) from the pretest mean scores (M = 4.406) to the posttest mean scores (M = 5.063). This could have been affected by the level of difficulty of the component. According to Kurland (1995), critical thinking skills such as analyzing language structures; making inferences; inferencing and interpreting the message, author, audience, purpose, and context; and responding to the text illustrate a progression in terms of difficulty. Considering multiple viewpoints may require, for instance, having at least a literal understanding of the text; examining the language, arguments, and information in the text; and considering the author's background information and context as well as the purpose for writing the material. Another developmental concern that could have caused such a result was what Chall (1983) described as "reading for learning the new" and generally reading from one viewpoint (as cited in Hermosa, 2002, p.152) among learners aged 9-13. Students could have had difficulty looking at the texts from the perspectives of the author and/or from other characters or voices in the reading material.

The low posttest mean scores in the TCR and in some critical reading components could have been caused by the shortened duration and scope of the intervention. Instead of a period of 10 weeks, the intervention lasted for only six (6) weeks. As a result, only six (6) elements of reasoning (i.e., issue/question/problem, purpose, point of view, information, interpretation/inference/conclusions, and assumptions) were taught instead of eight (8). Lessons 7 and 8 on concepts and implications/ consequences were not implemented. The ninth and tenth weekly plans allotted for lessons on the use of all the elements of reasoning were not implemented either. Using all these elements as one thinks is necessary for a person to think critically (Paul, n.d. as cited in Nosich, 2005).

Also, practice opportunities must be provided to develop critical reading among students (McLaughlin & DeVoogd, 2004); this, however, did not take place during the intervention. Even if there were guided and independent practice opportunities given in each lesson, students were still not able to use explicitly all the eight elements of reasoning in reading. The duration of the present study was too short to develop the target skills.

Nonetheless, the data indicate that the explicit instruction of critical thinking is an effective approach to develop critical reading, particularly in terms of examining arguments or the language of the text, identifying implications or consequences, and identifying the author's purpose or motive.

Therefore, it is recommended that teachers be encouraged to use explicit instruction of critical thinking in developing students' critical reading. Moreover, students should be provided with more opportunities to read from a critical stance. Finally, the study can be replicated, using updated and refined instruments, having another rater for the test to establish inter-rater reliability, and implementing a longer intervention period.

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