



## Critical Reading Inventory in English among Elementary Students

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**Abstract.** Reading requires an inventory to assess student's level of thinking as a reader so that a teacher could plan remediation schemes to help the students achieve their optimum potential as readers by employing the strategies of remediation and provide enrichment schemes to sustain the ability of advanced readers and help those who are struggling in reading. One significant emerging issue recently is that students are greatly influenced by social media and online games, a common phenomenon that exists as the internet grows. This study seeks to determine the reading inventory which aims to develop the critical thinking reading of the students which is one of the very important skills in the 21<sup>st</sup> century, particularly among the elementary students of Mater Dei College. This embarks to address basic problems in coping with thinking skills which are lifetime skills. This study made use of the quasi-experimental design (Johnson, 2014) since data are gathered twice through the pretest and posttest. Primarily, it aimed to determine the entry and exit critical thinking reading levels of the students as shown in their pretest and post-test results and to find out further if there is a significant improvement after the given interventions. Results show that among the ninety (90) students involved during the pretest, seven (7), or 7.78% are at the independent level, seventy-five (75), or 88.33 % are at the instructional level, and eight (8), or 8.89% are in the frustration level. However, during the posttest, twenty (20) or 22.22% belong to the independent level, sixty-two (62) or 68.89% are in the instructional level, and eight (8), or 8.89% are in the frustration level. Overall, it suggests that there is an increase of 14.44% in the number of students at the instructional level.

**Keywords:** *Critical Reading, Frustration Level, Independent Level, Instructional Level, Reading Inventory*

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### Introduction

Education is cognition, as quoted by William Spady, the proponent of outcome-based education. It means that the be-all and end-all of education is to develop thinking skills. Critical thinking is the intellectually disciplined process of skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from observation, experience, and interactions with others to guide objectively one's decision making. Hence, critical thinking is the highest order of thinking skill as it involves all processes of thinking.

People use critical thinking skills daily to anticipate the consequences of actions and solve problems. Essentially, critical thinking leads to sound decisions. It is the goal of the current curriculum program to empower learners to become critical thinkers and problem solvers both in

the local and global communities. Reading is a key to academic success. Teachers should expect their students to attain their career goals and develop their critical reading skills to the fullest. Critical reading also provides opportunity for the students to recall their past experiences and process this in the context of a new situation. This requires higher levels of cognitive skills in the processing of information.

In today's global and rapidly changing world, students need to be able to do much more than repeating a list of facts. They need to be critical thinkers who can make sense of information, analyze, compare and contrast, make inferences, and generate higher-order thinking. A child's natural curiosity lays the foundation for critical thinking.

The three reading levels identified by reading specialists such as the independent level, instructional level, and frustration level enable the teacher to determine the appropriate materials to give to the students. Teachers should provide opportunities for students to exercise critical reading in order to develop critical thinking skills. The three reading levels identified by reading specialists such as independent level, instructional level, and frustration level enable the teacher to determine the appropriate materials to give to the students. When a student can read alone by himself with full comprehension, without any assistance, he/she belongs to the independent level. However, if he/she needs assistance from the outside to comprehend the material fully either by looking up in the dictionary or thesaurus as soliciting help from a proficient reader, then a student is on the Instructional level. Lastly, a student is at the Frustration level if he/she finds the material confusing or incomprehensible, thus he needs full assistance from a tutor.

This study is anchored on Bruner's theory of scaffolding, on the other hand, emphasizes that when children start to learn new concepts, they need help from teachers and other adults in the form of active support. To begin with, they are dependent on their adult support, but as they become more independent in their thinking and acquire new knowledge and skills, the support can be gradually withdrawn. In this study, the critical reading inventory can give teachers a clear idea as to what levels of reading students have in their respective classes. Active support in the form of intervention schemes could be done in order for the students to become more independent in reading.

Moreover, the theory of Constructivism posits that children actually invent their ideas. They actively construct their knowledge, assimilate new information and modify their understanding in light of new data. Children should be encouraged to search for meaning, appreciate uncertainty, and inquire responsibly. This is true in this study because students really have to actively read different stories, interact and evaluate the texts in order to fully understand them. Soon after, students may construct their own meaning and may present logical arguments based on how they understood and perceived the text. It requires higher-order thinking skills.

Modern trends in reading emphasize the Schema Theory and Prior Knowledge. The Schema Theory states that the schemata are the series of knowledge stored in the memory. Schemata are organized summaries of past experiences which are involved in interpreting new information. Without prior knowledge, it will be difficult to understand a new idea, make guesses, inferences, and draw conclusions. In this study, students have to really process

information as they read different stories, recall past events, modify what they understand, and create their own meaning from the text based on previous experiences.

Aside from getting meaning to what has been read, the teacher in this sense is giving equal opportunity to the students to analyze and interpret events and ideas while interacting to the text. Progressing into its higher level of questions, the students can recall, interpret, apply, evaluate, and reflect allowing them to think critically on what they are learning. Students who are said to be critical readers could raise either approval or objections to the ideas and evidence presented into the text, thereby requiring them for a more extensive and elaborate answer based on their personal perspectives.

Recently, students are greatly influenced by social media and online games extended even until now at home, may also be in or outside school. Some male students left their classes and preferred to stay on the internet coffee for online gaming. This common phenomenon exists as the internet grows. Although technology is beneficial to some extent, for educational purposes for instance once it is used solely for entertainment, then it becomes a bad habit difficult to discard.

Reflecting on these, Reading indeed requires an inventory to assess student's level of thinking as a reader so that a teacher could plan remediation schemes to help the students achieve their optimum potential as readers by employing the strategies of remediation and provide enrichment schemes to sustain the ability of advanced readers and help those who are struggling in reading. Thus, this study was embarked on to address basic problems in coping with thinking skills which are lifetime skills.

## **Objectives**

This study aims to determine the critical thinking reading levels in English among the elementary students at Mater Dei Laboratory Elementary Department.

## **Methodology**

This study uses a quasi-experimental design (Johnson, 2014) since the data were gathered twice through pretest and posttest.

## **Results and Discussion**

### *Profile of the respondents*

All students from Grades 1 to 6 took part in the reading program, however for data to be treated; the researcher selected 15 students per grade level who were the subjects of the study based on the results of their pretest and post-test scores subject for analysis and interpretation. Table 1 below shows the profile of the students.

**Table 1. Profile of the Students**

Grade Level	Male		Female	
	F	%	F	%
1	8	16.67%	7	16.67%
2	8	16.67%	7	16.67%
3	4	8.33%	11	26.19%
4	8	16.67%	7	16.67%
5	11	22.92%	4	9.52%
6	9	18.75%	6	14.29%
N=90	48	100%	42	100%

Table 2 below shows the respondents' entry and exit critical thinking reading levels as shown in their pre-test and post-test results.

**Table 2. Entry and Exit Levels of Critical Thinking Reading Distribution**

	Pretest			Posttest		
	Independent	Instructional	Frustration	Independent	Instructional	Frustration
Grade 1	2	12	1	2	13	0
Grade 2	2	12	1	8	7	0
Grade 3	0	13	2	3	12	0
Grade 4	1	14	0	1	9	5
Grade 5	0	11	4	1	11	3
Grade 6	2	13	0	2	13	0

Findings are divided into three sections: **Section 1** deals with the analysis of errors of entry-level scores and their interpretation. **Section 2** is the series of intervention schemes conducted to address the weaknesses identified. **Section 3** is the analysis of the exit level scores and their interpretation.

### Section 1. Entry Levels

In grade 1, there were two (2) independent, twelve (12) instructional, and one (1) in the frustration level. There was a common pattern of weakness of these twelve (12) students which made them fail to reach the independent level. Their lack of exposure or experience of the situation asked in the story failed them to predict the answer to the question. Probably, they have not been to a live circus or watched films where there were circus scenes. For example: At the Circus: What are other things seen in the circus? a. electric toys that fly b. a ferry's wheel c. boxing tournaments. The student's answer is a. It means that the student could not relate what the usual things are found in the circus since he had no exposure to a circus, he could predict that there should be a ferry's wheel in the circus talked about it even if he could not completely recall

about the story. This would show the importance of prior knowledge to be able to relate to what is being read.

The fifteen (15) answer sheets from grade 2 had the same scores in the three levels. The twelve (12) students who were in the instructional had a common weakness; they could not sort out the series of events in the story so they could not also predict the ending of the story. As shown in this answer sheet: *The Three Little Pigs*. What happened to the fox at the end? a. The three pigs threw stones at him b. He was trapped into boiling water and died c. He was poisoned by the three pigs. His answer was a.

Apparently, he could not draw the connections between the series of events, so there was no full understanding of the entire episodes, thus, he could not predict what would have been the outcome.

A discouraging revelation in the third grade they had 0 independent level but thirteen (13) instructional levels and one (1) frustration. To think that no one in the fifth grade entered as an independent reader was discouraging. The story was “*Milkmaid and her pail*”. The questions asked required the first three levels of Bloom’s thinking skills, Remembering, Understanding, and Applying. Sample questions: What was her first plan? a. The money she would receive from her milk, she’d a. buy eggs, to hatch b. buy piglets to sell c. buy puppies to sell. Her answer was a. Another question, what was her next plan? a. poultry house b. build a pigsty c. buy a lovely dress. Her answer was not right again. The questions required her to remember fully the series of events and perhaps try to apply it to her situation but she could not recall completely the series of events. To be able to organize one’s thoughts, it was necessary for one to be able to put order a series of events.

Grade 4 has only one (1) independent and fourteen (14) instructional but none (0) in the frustration level. A review of their answer sheets showed a similar weakness as those in the third grade, inability to remember concretely a series of events. This is an important skill in life since the most common skill required in interactions with people is to usually cite a series of events to answer a question. The story was *The Two Travelers and the Bear*. The question: When the attacker was close, the second friend... a. dropped to the ground face down and remained stiff b. got ready to strike the enemy c. cried hard. This ought to be the most exciting part of the story, how to cope with this emergency yet the examinee could not clearly recall what happened since he gave the wrong answer.

Grade 5 result was most disappointing as there were none in the independent, eleven (11) instructional, and four (4) frustration cases. The story was about “*A Lesson from Juana*”. There was a background of the story given again to help the examinees in inferring the reaction of the people. Juana and her father discovered that if they put up pieces of cloth sewn together and spread it on the side of their boat; the new contraption could harness the power of the wind. It helped in navigating to sail faster and smoother. Choices were: a. the village fishermen cursed this contraption b. the village folks made it their model c. the village women laughed at it. The student’s answer was a. His choice is a manifestation of a lack of prediction of the expected reaction to a new discovery. It was a fishing village and it should be expected that fishermen should welcome any discovery that could make their livelihood easier. Instead, his choice was illogical.

The Grade 6 was not actually good news. It was expected that there should be more in the independent level but only two (2) so far were in the independent, thirteen (13) instructional, a comforting revelation, not one was in the frustration. The story was about Cain and Abel. The question may not be textual but this requires inference based on observation and personal experience. The question was whether a jealous person is one who feels that the other person has... a. better privileges than he has b. an advantage over him c. less possessions. Obviously, this student did not bother to analyze a personal application of the situation, what do you feel when a sibling has an advantage over you? Naturally, you get jealous! That should have been the simple analysis required of the situation.

## **Section 2. Intervention Schemes**

The researcher made a summary of the common weaknesses of the students as her bases in focusing on the thinking skills to be addressed. It was clear that the students still did not have a full grasp of the three lower-order thinking skills. They had a problem in predicting, inferring, and then applying because of their inability to recall concretely a series of events so that full comprehension of the episode could be achieved. Hence, in the next five (5) stories to be taken up by the class (this served as the post-test), then the researcher prepared questions in the exercises that would drill them on answering the questions that enable them to remember a series of events. This would entail reactivating schema useful for inferences, predictions, and analyses.

The teacher discussed first the nature of inferences, prediction, application, and analysis. Definitions were given and specific situational examples were shown. Practical questions were asked so that they could relate, for example, in this situation, give your inference: The clouds were dark and heavy. What would you do when you go out, what will you bring? a. flashlight b. provision for lunch c. umbrella. It is likely that students could readily answer this, thus, she can easily decide that to bring an umbrella is the best answer since experience tells us that when the clouds are dark and heavy, it is about to rain.

Prediction was also discussed to differentiate it from guesses. This example was given: Mr. Roberto Torres has a favorable impression on the voters. They say he is honest and dependable. Thus, it is predictable that he is likely to win this election because of the impressive feedback from the voters. Prediction is an educated guess as to what will happen based on observation or feedback.

Context clue was another element not utilized by the students when they gave their answers. Context clues are hints that an author uses to help define a difficult word or unusual word within a sentence. These clues can be found in the words and sentences surrounding the unknown word or phrase. Example: The debris on the gym's floor included all sorts of papers, ticket stubs, paper cups, cigarette butts, and plastic bottles. Debris means a. products b. materials c. trash. The given examples easily give the meaning that c. trash is the answer. The given examples help the reader explain the word's meaning.

Here are additional sample exercises to help students equip themselves with these skills for more accurate processing of information from the text. What follows are only the sample exercises. What actually happened in the classroom, students were given brief stories, or short

paragraphs whereby the techniques of contextual clues, prediction, inference, and basic reasoning can be employed in eliciting responses to formulated questions.

### Inferences:

1. Mom saw that some of the cupcakes in the fridge are missing. My 7-year-old brother had crumbs in his mouth. What do you think happened?
  - a. My brother helped bake cupcakes
  - b. He ate some of the cupcakes
  - c. He had to brush his teeth
2. What details tell you that the child is hungry?
  - a. His tummy growls loudly
  - b. He is crying
  - c. He is jumping up and down.
3. Gavin accidentally breaks a window when he plays baseball. How do you think he feels?
  - a. He is scared of getting in trouble.
  - b. He feels triumphant for having thrown the ball so hard.
  - c. He can't wait to break another window.
4. Isabel's soccer team cheered. The coach gave them a trophy. What do you think happened?
  - a. The opposing team won the game.
  - b. They won the game.
  - c. The coach got kicked out.

### Prediction

- 1) Robert smelled smoke. He looked outside and saw a pile of leaves burning. Robert ran to the phone and frantically dialed a number. Which number was he calling?
  - a. The Welfare Department
  - b. the Police Department
  - c. The Fire Department.
- 2) Jean put on her swimsuit. Next, she packed her towel and sand toys in a bag. Finally, she put on a hat and sunscreen. Where was she going?
  - a. To the beach
  - b. On a nature walk
  - c. to grandma's house
- 3) Long ago, there lived a pig that was given plenty of good food each day. He was quite satisfied and contented with his life until one day; the farmer's wife brought his food and said, "Enjoy this good food while you can. For you shan't be around much longer." What was the wife about to tell the pig next?
  - a. We are moving to another farm.
  - b. You are being sold to a pet store
  - c. The next time we meet will be at our dinner table.
- 4) Nico's mother brought home empty boxes from the store. She wrapped the dishes in newspaper and placed them in the boxes. She took down the pictures and the frames. She told Nico that his first day at the new school is Tuesday. What prediction can you make?
  - a. The family is moving out.
  - b. Nico's mother is decorating their house.
  - c. Nico's mother is making a general clean-up of the house.

### Contextual Clues

What does the underlined word mean?

- 1) Our coach has a few eccentric habits such as having 20 push-ups before going to bed and never wearing socks at the games.
  - a. strange
  - b. messy
  - c. comical
- 2) After the heavy rains, the streams became murky; in fact, the water was so dark you couldn't see the bottom.

- a. Bottomless    b. clear            c. cloudy
- 3) The newlyweds agreed to be very frugal in their shopping because they wanted to save enough money to buy a house.
- a. Wasteful        b. interested        c. economical
- 4) Although Alex usually looks unkempt, he had a very neat appearance at his job interview.
- a. Orderly            b. handsome        c. messy

### Analyzing, Synthesizing, and Creating

Sometimes students were made to watch very short motivational films and these types of questions were asked to elicit responses that require them to analyze, synthesize, or create. Sample questions:

1. If you were to change the ending of the story, how would it end? Describe your kind of ending. Why do you want it that way?
2. Which dialogue in a scene in the film tells you that he started the trouble that led to arson?
3. Could you say that Mr. and Mrs. Tomas were very good parents to their adoptive child? Why or why not?

### Additional Intervention Reinforcement Schemes

Since all the Reading Teachers were also the teachers in the English classes, the teachers often infused some skills taught in the Reading class into English class exercises.

### Section 3. Exit Levels

In all grade levels, out of ninety (90) student respondents during the pretest, seven (7) or 7.78% are at the independent level, seventy-five (75), or 88.33% are at the instructional level, and eight (8) or 8.89% are in the frustration level. However, during the post-test, twenty (20) or 22.22% belong to the independent level, sixty-two (62), or 68.89% are in the instructional level, and eight (8), or 8.89% are to the frustration level. Overall, it suggests that there was an increase of 14.44% in the number of students at the independent level. But there was a decrease of 14.44% in the number of students at the instructional level. Finally, there was no increase or decrease in the number of students in the frustration level as the figure remained the same.

The table on the succeeding page presents the result of the critical thinking reading level of the students.

**Table 2. Significant Improvement of the Students**

Pretest Mean	Posttest Mean	Significance Level	p-value	Decision on $H_0$	Interpretation
7.50	7.74	0.05	0.02	Reject	Significant



The table shows an increase in the scores of the students in the critical thinking reading from the Pretest Mean of 7.5 to the Post-test Mean of 7.74. Since this increase yields a computed p-value of 0.02 which is lesser than the significance level of 0.05, the students made a significant improvement in their critical thinking reading scores. Therefore, this implies that the intervention scheme was effective in improving the performance of the students in their critical thinking reading.

## **Conclusion**

It could be concluded that critical thinking reading skills could be developed and achieved if the teachers would expose students to the right instructional materials. The teachers' questioning techniques that give opportunities for students to process information that entails inference, analysis, and evaluation would pave the way for students to strengthen their critical thinking.

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