

PalArch's Journal of Archaeology of Egypt / Egyptology

APPLYING SOCIAL COGNITIVE BASED LITERACY LEARNING MODEL TO IMPROVE STUDENTS' READING AND REASONING SKILL IN INDONESIAN ELEMENTARY SCHOOL

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Susan Maulani, Bachrudin Musthafa, Vismaia S. Damaianti, Mubiar Agustin, Ryan Dwi Puspita. Applying Social Cognitive Based Literacy Learning Model To Improve Students' Reading And Reasoning Skill In Indonesian Elementary School-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(9), 1205-1224. ISSN 1567-214x

Keywords: Elementary School, Literacy Learning Model, Reading Skill, Reasoning Skill, Social Cognition

ABSTRACT:

This study was aimed at investigating the effect of the social cognitive-based literacy learning model (SCBLLM) to improve students' reading and reasoning skills for 2nd grade of elementary school. It applied a quasi-experimental method with a pre-test – post-test control group design. It was conducted in three elementary schools in Bandung city and took a sample size of 40 students. The data were collected using interviews and tests. The test to measure students' reading and reasoning ability was based on Rudell's (2006) four levels of thinking. The results showed that there was an effect of the application of the SCBLLM on students' reading and reasoning skills. The average increase of reading skill for the experimental class was greater than that of the control class. While the average difference test of the posttest data on the students' reasoning ability in the experimental class three and the control class at a significance level of 0.05 obtained p (sig.2-tailed) = 0.000 with an average N-gain of the experimental class = 0.849 and the N-gain class. control = 0.413. The results of this study might serve as a reference for the teachers to create and implement some activities to foster students' literacy in terms of their reading and reasoning skills as their basic literacy skills.

INTRODUCTION

Reading skills will benefit students for their lifelong learning and to some extent for their pleasure purpose when dealing with literary work. Since this skill is crucial for students, it needs to be instilled from an early age. Researchers view that reading skill is considered as one of the language skills that are difficult to acquire or learn in the school (Abuzaid & Al Kayed, 2020). Students should manage themselves to deploy an awareness of their independent reading process (Cartwright, 2011) and they should be able to generate conclusions to support their reading comprehension (Elbro & Buch-Iversen, 2013; Oakhill & Cain, 2012). Students are expected to achieve reading skills since it can be a strong predictor for their future literacy achievement and their performance in various academic fields (De Lyon & Dhingra, 2019). Reading skill is considered important by the Indonesian government. The ministry of education and culture in 2020 has set the guidelines on the literacy to achieve by elementary school students. Literacy includes students' ability to use reasoning and language. Education should focus on nurturing students' reading and reasoning skills. This concern has been an issue that has been expressed by many parties. To achieve literacy, all the efforts should be geared toward the common goals and support each other for the benefits in the learning process (Thurston et al., 2019).

However, the implementation of this policy has met several obstacles. To investigate this problem, the researchers gave a questionnaire which the researchers distributed to the teachers in June 2020 to 30 elementary school teachers in one of the major cities in Indonesia, namely Bandung. The results show that some elementary school teachers do not yet have a special research-based model to develop students' reading and reasoning skills. Other findings relate to the factual conditions of learning to achieve reading and reasoning skills in elementary school. 60% of respondents stated that they only applied group learning to learn to hear, respond, and understand when other groups told stories or spoke in front of them. Meanwhile, 40% of respondents implemented the strategy by guiding students using simple readings in the form of words accompanied by interesting pictures. Other problems include students' difficulties to achieve reading and reasoning skills. Several experts have conducted research related to the process of learning to achieve reading and reasoning skills. Some investigated evaluating reading comprehension, word problem-solving skills in grades one and two, completing decoding measurements, vocabulary knowledge, and reading comprehension, and word problem-solving skills (Goodrich & Namkung, 2019). Other researchers examined E-book-based detection to record the reading process of students in lower grades of elementary school to evaluate reading fluency (Lin et al., 2019). Others reported the development of high-level reading comprehension skills in low-grade students through creative, collaborative work and digital competence in a computer-supported collaborative learning environment (Hong et al., 2020).

Reading comprehension issues have attracted researchers. The issues include evaluation of decoding, production of grammatical/ungrammatical sentences, production of simple/complex sentences, and vocabulary as well as predicting

reading comprehension among second and fourth-grade children (Coloma et al., 2020); evaluation of the contribution of morphological awareness to reading comprehension (Zhang et al., 2020); evaluation of achievements and matters contributes to reading comprehension of students in grades 1-4 (Taboada Barber et al., 2020); reading comprehension which is assessed with multiple-choice assignments and reading comprehension from online sources with problem-solving tasks (Kanniainen et al., 2021) and reading fluency in the heart (Krasa & Bell, 2021) Taking into account students' problems to learn reading and reasoning skills in the Indonesian context, the researchers assessed the needs of students in the field and reviewed the documents and literature related to the issue. The present study tried to come up with an SCBLLM to be applied as the solution to the problems of reading and reasoning skills in elementary school SCBLLM can be a promising approach to teach elementary school students literacy consisting of reading and reasoning skills. Several researchers have conducted to investigate the effect of the application of the literacy model on students' reading and reasoning abilities. Swart et al. 2017 investigate cognitive theory effect for the developmental relationship between lexical quality (decoding and vocabulary) and early grade reading comprehension skills, Aladağ et al. (2021) examined natural literacy affects students' reasoning, Ye et al. (2021) determines literacy learning in literacy assignments, Condie & Pomerantz (2020) investigated the reading, writing, listening, and speaking abilities of elementary school students with an assessment of the Taxonomy level Bloom, Lê et al. (2020) explored the application of literacy learning, namely word coding and spelling, rhythm production tasks, phonological awareness, and automatic naming, and motor tasks. SCBLLM will be discussed in depth in the following section.

LITERATURE REVIEW

Social-Cognitive Based Literacy Learning Model

This study proposes SCBLLM to improve students' literacy consisting of reading and reasoning skills in elementary school. In elementary school, literacy according to Roskos & Christie (2001), is the initial phase in literacy development and the opportunity to nurture reading and writing skills. The early literacy period occurs in a child between birth and the period when a child can read and write at a conventional level around third grade (Morrow, 2018). In early grade, students (grades 1-3) learn to read, develop knowledge of the principles of the alphabet, gradually improve their skills in word recognition, achieve reading fluency and strategic reading for understanding. In this elementary school, appropriate steps are needed to improve student learning outcomes. This present study investigates literacy in terms of reading and reasoning skills with the steps referring to Bandura's Social Cognitive theory.

Social cognition theory has been developed by Bandura (1977) who hypothesized that students' behavior, environment, and internal events affect perception and action and those elements have an integral relationship. Most human behavior and cognitive skills according to {Formatting Citation} are learned through enactive experiences and substitute experiences. Enactive

learning includes learning from the consequences of one's actions (Bandura, 1986). Bandura formulated a comprehensive observational learning theory that was developed to cover the mastery and practice of a variety of skills, strategies, and behaviors (Zimmerman & Schunk, 2011).

The Concept of Reading and Reasoning Skill for Elementary School Student

Reading and reasoning skills make up literacy for children. The two skills have been associated closely with cognition. Berk, (2012) defines cognition as "the inner processes and products of thought that lead to 'knowing.' It includes all mental activities - remembering, symbolizing, categorizing, problem-solving, creating, fantasizing, and even dreaming". Cognitive development, then, refers to the development of a child's thinking and reasoning abilities. Reading skill is pivotal for children's literacy. It should enable students to understand the text they read (Hudson et al., 2020) and this skill can be detected repeatedly (Klebanov et al., 2020). It can be used by students to navigate the texts in various online sources (Kiili et al., 2020). Reasoning skill in this study refers to the level of thinking according to Ruddell, (2006) which consists of four levels of thinking to the seven frequently used comprehension skills. These levels of thinking and understanding skills are interrelated where the seven comprehension skills that are given can be developed through each level of thinking. The four levels of thinking are factual, interpretive, applicative, and transactive level. The first level is factual that involves memory and recalling information directly from the reading text. The second level is the interpretive level that requires inference and manipulation of the information text. The third level is the applicative level that requires skills in integrating information in the text with each individual's cognitive schema. The last level is the transactive level that demands the use of knowledge-based texts, individual cognitive schemes, and values. This study investigated these four levels of reasoning skills to measure the SCBLLM effect to improve students' literacy.

RESEARCH METHOD

To investigate the effect of SCBLLM in improving students' literacy at elementary school, the present study used a quasi-experimental. The design used was the pre-test control group design (Creswell, 2013). The design is as follows

Group A O1 _____ X _____ O2
 Group B O3 _____ O4

Notes:

X: Treatment given in the form of SCBLLM

O1&O3: Pretest

O2&O4: Posttest

The steps of SCBLLM are detailed in the table below.

Table 1. The steps of SCBLLM

Theory	Steps	Teacher's Activities	Students' Activities
Attentional Processes in Observational Learning Bandura	Modeling reading is performed by the teacher using the strategy of reading aloud	<p>In this activity, the teacher reads a text which is compatible with the theme and taking into account the accuracy, speed, and expression which is correct. Using the media of Big Book, theme, the content of the text, and supported by the illustration suitable to child's ages.</p> <hr/> <p>The teacher relates the text to children's experiences before the reading session.</p> <hr/> <p>The teacher gives examples to children on how to understand the text, by giving steps with flashcards to answer the contents of the text.</p>	<p>Children listen well when the teacher reads the narrative text.</p> <hr/> <p>Children remember the steps on how to understand the reading assisted by cards containing symbols and questions about the text.</p> <hr/> <p>Children answer the teacher's questions according to the flashcards.</p>
Retention Processes and Reproduction Processes in Observational Learning Bandura	Engage the children with reading exercises	<p>The teacher classifies the children into three groups of children who are given the task of reading. Make group rotation</p> <hr/> <p>The teacher engages the children with reading exercises. In this phase, the teacher guides the children in groups. The children were divided into 3 groups (group rotation), when the teacher was guiding one group of children, two other groups were given tasks, for example, coloring pictures, rewriting the stories read by the teacher, sorting the pictures according to the stories, selecting stories and reading individually or groups, reading in pairs or other supportive activities.</p>	The children select text and read the text aloud, get feedback from the teacher and answer questions according to flashcards
Motivational Process in Observational Learning Bandura	Give children reinforcement so that they increase abilities and are motivated to always read	The teacher gives children reinforcement from the learning outcomes they achieve. Reinforcement in the form of praise or reward	Receiving reinforcement

Research Site and Subjects

There were three elementary schools involved in this study namely SDN (Sekolah Dasar Negeri/ Public Elementary School) Sukaluyu (Experiment class one), SDN 078 Sindangsari (Experiment class two), SD Rabbani Class A (Experiment Class three), and SDN Rabbani Class B (Control Class). The research subjects who took a part in this study were grade two with an average age of seven to eight years. The sample used was 44 students from four classes and their respective four homeroom teachers. Out of four classes, three classes served as an experimental group with 33 students. The remaining one class served as the control group with 11 students. The sampling technique was carried out randomly to select the elementary school with the following criteria: excellent public school, public school, and private school.

This research was conducted in the odd semester of the 2020/2021 school year in grade 2 of elementary school. The research sample was selected based on: (1) Bandung's elementary school supervisors' suggestion (2) research supervisor and elementary school practitioners, (3) their location that is in Bandung city.

RESEARCH PROCEDURE

There were some procedures that the present study had accomplished. The research procedures are as follows:

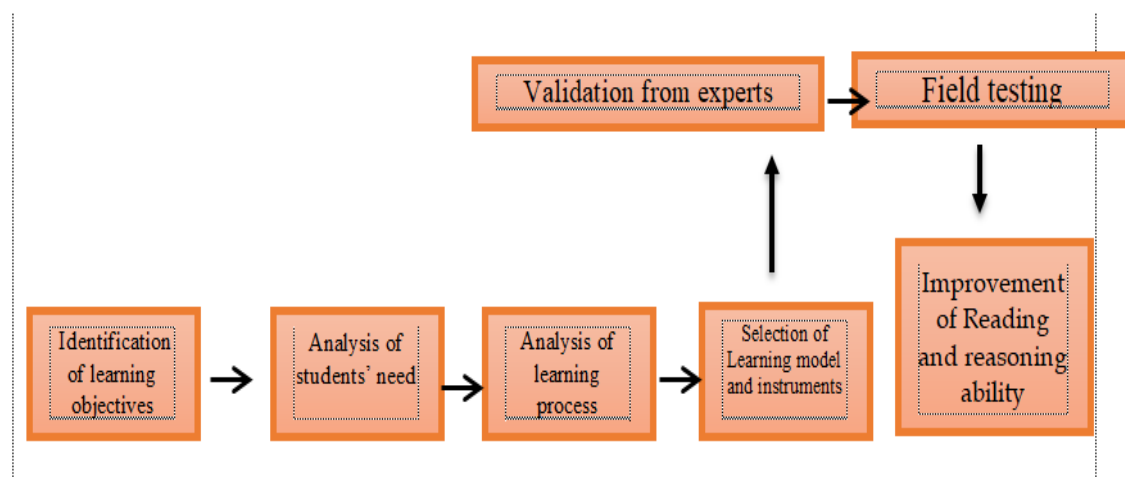


Figure 1. Research Procedures

Data Collection Technique

To collect the data, the present study conducted observation and interviews. The former included the pretest and posttest tests which were analyzed quantitatively with the t-test. An interview was conducted with the teachers to investigate their response on SCBLLM implementation to improve students' literacy.

Research Instruments

The researchers used observation as an instrument to measure students' reading and reasoning skills. The guidelines for reading skill instruments are described in table two below.

Table 2. Guidelines for Reading Skill Observation

No	Indicator	Test item
1.	Accuracy	1. Read the text with the title (adjusted to the theme) correctly!
2.	Speed	2. Read the text (adjusted to the theme) well and correctly!
3.	Intonation	3. Read the text (adjusted to the theme) with good intonation!

Table 3. Clues for Reasoning Skill Observation

No	Level	Indicator	Test Item
(1)	(2)	(3)	(4)
1.	Factual Level	Identifying setting (characters, place, time) from the text	1. Who are the characters in the story?
			2. Where did the story take place?
			3. When did the story happen?
2.	Interpretive Level	1. Explaining information from the story using their own words orally or in written form	4. Why do mosquitos stay in Bima's room?
			2. Exemplifying the ways to keep the room clean
			5. Mention two ways to keep your room clean!
3.	Applicative Level	Integrating the content of the text with the previous knowledge	6. Tell the story in your own words!
			7. What did you do to keep your room clean and comfortable?
4.	Transactive Level	Affective response toward the text	8. What do you think when Bima sees his cleanroom?

Data Analysis Technique

After the data were collected from pretest and posttest, the data were analyzed in the following way: if the initial test scores and final test scores were

normally distributed, then the hypothesis testing was conducted by t-test. All the scores from the tests were processed using SPSS version 22 at a significant level of 0.5.

RESLUTS

Reading Skill Test

Students' reading ability in this study was measured based on three criteria namely accuracy, speed, and intonation. The results of the reading ability test are described below.

The results of Students' Reading Skill Test on Accuracy Criteria

The results of the pre-test data normality test for the accuracy of the experimental class and control class showed the sig value. > 0.05 . This is to say that experimental class one got a sig value. 0.172, experimental class two got a sig. 0.258 and experimental class three got a sig. 0.258. The control class got the sig value. 0.258. The data from all classes shows that the data distribution was considered normal.

To test the homogeneity of the pretest data, the accuracy of the experimental class and the control class got the sig value. 0.795. Sig value. $0.795 > 0.05$, this indicates that both experimental classes and control class have the data which are considered homogeneous. The data is considered to be normally distributed and homogeneous. Meanwhile, the results of the posttest data normality test for the experimental class and the control class showed the sig value. > 0.05 , that is, the experimental class one got a sig value. 0.055, experimental class two with a sig. 0.051. Experiment with class three with a sig. 0.191 and the control class show the sig value. 0.258. The data shows that their distribution is normal

To test the homogeneity of the posttest data, the accuracy of the experimental class and the control class got the sig value. 0,000. Sig value. $0.000 < 0.05$, this shows that the accuracy of the experimental class students and the control class students' accuracy is declared not homogeneous, then the difference test was carried out. The explanation of the mean difference test results for the pre-test accuracy of the experimental class and the control class is shown in table 4 below.

Table 4. The result of the Difference Test for Reading Skill on Accuracy criteria

Data	<i>observed</i>	<i>df</i>	<i>t_{tabel}</i>	<i>Sig.</i>	Decision
PreTest_ExPre Test_control	0,515	38	0,264	0,795	There is no difference

Table 5. The Result of Difference Test for Means of Accuracy criteria

Data	<i>t_{observe}</i>	<i>df</i>	<i>t_{tabel}</i>	<i>Sig.</i>	Decision
Post_Ex1_ Post_Control	3,882	18	2,101	0,001	There is a difference
Post_Ex2_ Post_Control	4,333	18	2,101	0,000	There is a difference
Post_Ex3_ Post_Control	4,333	18	2,101	0,000	There is a difference

The results of Students' Reading Skill Test on Speed criteria

Criteria two for reading skills refers to the Speed that students performed when reading. The present study found the data as shown in the following tables.

Table 6. The result of the pretest for Speed Criteria

No.	Sample	Pretest "I have to live cleanly"	Pretest "I have to live cleanly"	Pretest "I have to live cleanly"	Pretest "I have to live in a clean manner"
		Experimental Class 1	Experimental Class 2	Experimental Class 3	Control Class
1	Sample 1	1 minute 8 seconds	1 minute 10 second	1 minute 17 second	2 minute 37 second
2	Sampel 2	50 second	1 minute 15 second	1 minute 35 second	1 minute 50 second
3	Sampel 3	45 second	49 second	1. minute 9 second	1 minute 20 second
4	Sampel 4	2 minute 50 second	4 minutes 16 second	1 minute 55 second	1 minute 64 second
5	Sampel 5	1 minute 18 second	1 minute 38 second	1 minute 11 second	1 minute 8 second
6	Sampel 6	42 seconds	1 minute 42 seconds	1 minute 17 seconds	1 minute 16 seconds
7	Sampel 7	1 minute 16 second	53 seconds	1 minute 25 seconds	1 minute 30 seconds
8	Sampel 8	2 minute 20 seconds	1 minute 16 seconds	1 minute 20 seconds	50 seconds
9	Sampel 9	3 minute 2 second	59 seconds	1 minute 44 second	45 second
10	Sampel 10	1 minute 20 second	59 second	1 minute 11 second	1 minute 2 second
	Mean	93,1 second	89,7 second	81,4 second	90, 2 second

The data above shows that the average reading speed of the experimental class 1 in the pre-test was 93.1 seconds per 101 words, the experimental class 2 were 89.7 seconds per 101 words, and the experimental class 3 were 81.4 seconds per 101 words and control class was 90.2 seconds per 101 words. From these findings, it can be concluded that the students' reading speed in experimental class 1, experimental class 2 and control class are nearly the same. Meanwhile, the experimental class 3 had an average reading speed below the three classes.

Table 7. The result of Posttest for reading Ability on Speed Criteria

No.	Sampel	Posttest "I have to live cleanly"	Posttest "I have to live cleanly"	Posttest "I have to live cleanly"	Posttest "I have to live cleanly"
		Experiment Class 1	Experiment Class 2	Experiment Class 3	Control Class
1	Sampel 1	1 minute	32 seconds	56 seconds	3 minutes
2	Sampel 2	45 seconds	25 seconds	32 seconds	1 minute 30 seconds
3	Sampel 3	40 seconds	27 seconds	36 seconds	55 seconds
4	Sampel 4	2 minutes	32 seconds	40 seconds	1 minute 10 seconds
5	Sampel 5	55 minutes	1 minute 15 seconds	51 seconds	49 seconds
6	Sampel 6	42 seconds	39 seconds	36 seconds	47 seconds
7	Sampel 7	1 minute	50 seconds	34 seconds	1 minute 44 seconds
8	Sampel 8	1 minute 30 seconds	32 seconds	36 seconds	50 seconds
9	Sample 9	1 minute	50 seconds	32 seconds	52 seconds
10	Sample 10	57 seconds	45 seconds	38 seconds	1 minute 35 seconds
	Rata- Rata	62,9 seconds	40,7 seconds	39,1 seconds	79,2 seconds

The data above shows that the average reading speed criteria of experimental class 1 in the posttest are 62.9 seconds per 101 words, experimental class 2 is 40.7 seconds per 101 words, experimental class 3 is 39.1 seconds per 101 words and the control class is 79.2 seconds per 101 words. There is the acquisition of an average increase or difference from the average during the pre-test minus the post-test average. For the experimental class 1, the increase is $93.1 - 62.9 = 30.2$, the experimental class 2, the increase is $89.7 - 40.7 = 49$, the experimental class 3, the increase is $81.4 - 39.1 = 42.3$. While the control class, the increase is $90.2 - 79.2 = 11$. From these findings, it can be concluded

that the reading speed criteria in the experimental class and the control class can be categorized as unequal or not homogeneous. This is to say that the average category of increase for speed criteria in the experimental classes was greater than the control class. The highest average increase was obtained by the experimental class 2 with a value of 49.

The Result of Reading skill on Intonation Criteria

The results of the normality test of the intonation criteria in the pre-test for the experimental class and the control class showed the sig value. > 0.05. This is to say that experimental class 1 got a sig value. 0.149, experimental class 2 got sig. 0.172, experimental class 3 got a sig. 0.177 and the control class got the sig value. 0.245. The data shows that their distribution is normal. To test the homogeneity of the pretest data for the intonation criteria, the experimental classes and the control class got the sig value. 0.355. Sig value. 0.355 > 0.05, this shows that the criteria of intonation for reading skill both the experimental class and the control class have homogeneous data. Meanwhile, the results of the posttest data normality test, the experimental class, and the control class showed the sig value. > 0.05, that is, the experimental class 1 got a sig value. 0.287, experimental class 2 got a sig. 0.174, experimental class 3 got a sig. 0.258 and the control class got the sig value. 0.258. The data shows that their distribution is normal.

For the homogeneity test of the intonation posttest data, the experimental classes and the control class got the sig value. 0.006. Sig value. 0.006 < 0.05, this indicates that the intonation criteria both the experimental classes and control class have the data which are declared not homogeneous, then the difference test was carried out. The explanation of the results of the difference for the mean pretest scores for the intonation criteria of the experimental classes and the control class is shown in table 8 below.

Table 8. The Result of Difference Test of Intonation Criteria in Pretest

Data	<i>t_{observe}</i>	<i>df</i>	<i>t_{tabel}</i>	<i>Sig.</i>	Decision
PreTest_Ex_PreTest _control	0,352	38	0,264	0,836	There is no difference

Table 9. The Result of Difference Test of Intonation Criteria in Posttest

Data	<i>t_{observe}</i>	<i>df</i>	<i>t_{tabel}</i>	<i>Sig.</i>	Decision
Post_Ex1_ Post_Control	3,536	18	2,101	0,002	There is a difference
Post_Ex2_ Post_Control	3,806	18	2,101	0,001	There is a difference
Post_Ex3_ Post_Control	4,200	18	2,101	0,001	There is a difference

Gain for Accuracy and Intonation Improvement from Experimental Class 1, Experimental Class 2 and Experimental Class 3, and Control Class

The improvement of accuracy and intonation criteria for reading skill can be seen in the following table 10:

Tabel 10. N-Gain for Accuracy and Intonation Criteria

Criteria of Reading Skill	N-Gain Experimental class 1	N- Gain Experimental class 2	N-Gain Experimental class 3	N-Gain Control class
Accuracy	0,733	0,947	0,894	0,473
Intonation	0,643	0,647	0,812	0,437

Reasoning Skill Test

In the previous sections, the results of the Reading skill test have been described and this section will focus mainly on the result of students' reasoning skills.

The Result of Difference Test for Reasoning Skill in pretest

The results of the normality test of the pretest for reasoning skill show that the experimental classes and the control class got the sig value. > 0.05 . This is to say that experimental class 1 got a sig value. 0.287, experimental class 2 got a sig. 0.141, experimental class 3 got a sig. 0.485 and the control class got the sig value. 0.245. The data shows that their distribution is normal. To test the homogeneity data in pretest for the reasoning skill, the experimental class, and the control class got the sig value. 0.508. Sig value. $0.508 > 0.05$, this indicates that both the experimental classes and the control class have the data which were considered to be homogeneous. After the data had been declared to be normally distributed and homogeneous, then the difference test was carried out. The explanation of the results of the mean difference test in the pretest of the experimental class and the control class is shown in table 11 below.

Table 11. The Result of Difference Test of Reasoning Skill in Pretest

Data	<i>t_{observe}</i>	<i>df</i>	<i>t_{tabel}</i>	<i>Sig.</i>	Decision
PreTest_Ex_Pre Test_Control	0,515	38	2,024	0,613	There is no difference

The data in table 11 shows that the mean difference test in the pretest data of the experimental classes and control class for reasoning skill at the 0.05 significance level obtained p (sig.2-tailed) = 0.613. It can be concluded that

there is no significant difference of mean between the experimental classes and the control class in the pretest for their reasoning skill at the 95% confidence level.

The Result of Average Test for Reasoning Skill in Posttest

The results of the posttest data normality test for the reasoning skill of the experimental class and the control class showed the sig value. > 0.05. This is to say that experimental class 1 got a sig value. 0.33, experimental class 2 got a sig. 0.119, experimental class 3 got a sig. 0.246 and the control class got the sig value. 0.143. The data shows that their distribution is normal. For the homogeneity test of the post-test data, the reasoning skill of the experimental classes and the control class got the sig value. 0,000. Sig value. 0.000 <0.05. This indicates that the experimental classes and control classes in terms of their reasoning skill were declared not homogeneous or there were differences. After the data is tested for normality and homogeneity, then the difference test is carried out. The explanation of the results of the difference in the average posttest score of the experimental class and the control class posttest is shown in table 12 below.

Table 12. The Results of Average Test for Reasoning Skill in Posttest

Data	<i>t_{observe}</i>	<i>df</i>	<i>t_{tabel}</i>	<i>Sig.</i>	Decision
Post_Ex1_Post_Control	3,681	18	2,101	0,000	There is a difference
Post_Ex2_Post_Control	6,519	18	2,101	0,000	There is a difference
Post_Ex3_Post_Control	5,232	18	2,101	0,000	There is a difference

The data in table 12 shows that the posttest mean for different test of reasoning skill in the experimental classes and the control class is at the 0.05 significance level obtained p (sig.2-tailed) = 0.000. It can be concluded that there is a significant difference between the post-test mean of the experimental classes and control class on their reasoning skill at the 95% confidence level.

Gain Improvement of Reasoning Skill for Experimental class 1, Experimental class 2, Experimental class 3 and Control Class

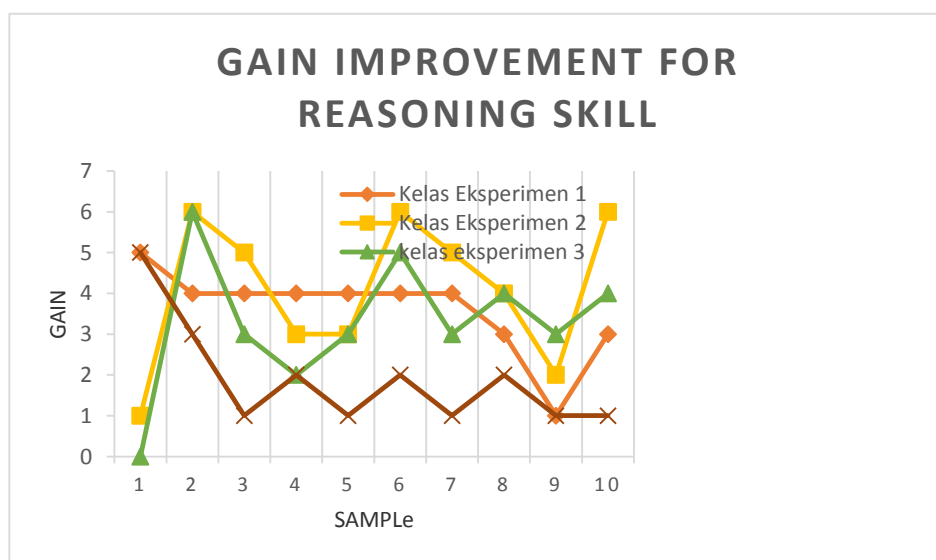
The increase in reasoning skill for the experimental class for the values: N-Gain for experimental class 1 = 0.766, N-Gain for experimental class 2 = 0.932, N-Gain for experimental class 3 = 0.85, and the control class the value for N-Gain = 0.413 was obtained.

The category for N-gain is as follows:

If $g > 0.7$, then the significant level of gain is stated in the high category, if $0.3 \leq g \leq 0.7$ then the gain level is stated in the moderate category and if $g < 0.3$ then the gain level is in a low category.

From the data above, it can be concluded that the level of gain in the experimental class 1, experimental class 2, and experimental class 3 is in the high category because their $g > 0.7$. Whereas for the control class it was stated that the increase was in the moderate category because $0.03 \leq g \leq 0.7$. The graph of the increase (gain) of each student in the experimental class and control class can be seen in graph 1 below.

Graph 1. Gain Improvement for Reasoning Skill



DISCUSSION

The present study investigated the effect of SCBLLM to improve students' reading and reasoning skills for grade 2 elementary schools in Bandung. The results of this study show that the average reading skill of experimental class 1 in the posttest is 62.9 seconds per 101 words, experimental class 2, were 40.7 seconds per 101 words, experimental class 3 were 39.1 seconds per 101 words, and control class were 79.2 seconds per 101 words. The experimental classes experienced an increase because they received SCBLLM treatment to improve their reading and reasoning skills. They also improved their reading skill in the criteria of accuracy and intonation. This achievement to some extent promotes their phonological awareness which is predicted to facilitate reading skills in the future for elementary school students (Wang et al., 2021). In this study, students were taught to learn the reading skill to develop their literacy. The SCBLLM combined the four learning processes according to social cognitive theory. The model integrates three steps to strengthen self-regulation to improve their reading skills. Students should learn to read quickly, accurately, and with precise expressions on a particular text to demonstrate their reading skill. In addition, they should perform three main components of reading skills namely accuracy, speed, and intonation (Kuhn & Levy, 2015; Elhassan et al., 2017).

Reading skill is very important to be developed because it will affect student's ability to understand the text they learn in several subjects. When students fail to achieve reading skills, they will face difficulty learning. In line with this,

Grigg et al. (2010) reported their study on students' delay in developing early reading skills. The students had low vocabulary growth and they change their attitudes and motivation to read. To overcome this problem, early literacy development should be promoted earlier (Barrett & Sjøgaard, 2015). Children need a supportive environment to develop their reading skills. The environment plays a significant role to develop their reading skill (Day et al., 2015). The classroom environment greatly influences children's literacy development and in turn, the children in the classroom influence the environment and their classmates' literacy development (Skibbe et al., 2012).

In the present study, the researchers designed the learning plan and developed the media before the teaching and learning took place. The media developed was in the form of a Big Book with text that was tailored and compatible with children's development. In this Big Book, themes that are interesting and close to student life were also selected. It was expected that the Big Book could motivate students to learn to read. This is in accordance with the results of interviews with the teacher from experimental class 2 who stated that:

“Learning to read for the early grades, especially for grades 1 and 2, requires media that can motivate children to learn. When they got the Big Book, the children became more enthusiastic. This may be because so far children are learning online and this process seems monotonous”

On the other hand, a homeroom teacher from experimental class 3 stated during a larger testing scale:

“Learning to read with the Big Book media and flashcards makes it easier for children to understand the story. Children become more enthusiastic about learning to read because the media is interesting. The steps in the learning model are also easy to apply”.

Based on the teachers' opinion above, it can be concluded that the application of the SCBLLM is effective in teaching reading and reasoning skills for elementary school students, especially grade 2. This can be seen from the results of the posttest mean difference test and N-gain. However, during this pandemic, online learning from home is taking place. It goes without saying that the effort to improve students' reading skills is very much influenced by the role their parents play. The parents are in charge to carry out the mission to develop students' reading skills. They are expected to be ready and able to guide their children to develop their reading skills (Slicker et al., 2021). Reading skill is the foundation of educational attainment. When early students enter school with poor language and reading skills, they usually find it difficult to follow the learning process in class (Mesa et al., 2020). They are likely to experience problems in a longer period and struggle to follow the learning process (Hoff, 2013; Pace et al., 2019). To overcome this problem, the researcher created a structured learning program, namely a multi-component intervention that could help improve some difficulties in learning to read. The model was developed and adjusted to the cultural context. Cultural context should be taken into consideration to support students' achievement in reading skills (Nag et al., 2014).

This SCBLLM model was applied to three elementary schools in Bandung city. During the field test, it was found that this model was effective in improving students' reasoning skills. Improving reasoning skills is influenced by various factors including the ability of teachers to deliver learning, student readiness, supporting facilities, and infrastructure. In addition, the capacity of the institution, namely the school, especially the principal, and the parent's capacity to develop students' reasoning skills. To learn a reading skill, students also need extra time to gain more opportunities to learn beyond their regular schedule (Razi & Grenfell, 2021). In the present study, the researchers provided additional homework to learn with assistance from their parents. Students varied in terms of their increase in reading and reasoning skill and this has something to do with the interventions given (Pfof et al., 2019). In this study, SCBLLM requires students to be able to recount what they have read with their teacher or parents. This ability is an indicator that students understand the text that has been read. This is in line with the study conducted by Suggate et al. (2021). They stated that interactive elaborative storytelling fosters vocabulary mastery compared to repeated reading. This model was applied in four meetings and it took both online and offline meetings. In online learning, what's app and zoom meetings were used as learning media. Offline learning was carried out in class with several sessions. Due to pandemic conditions, schools could not carry out face-to-face learning as usual. When it comes to the implementation of SCBLLM online, teachers faced various obstacles. One of the teachers in an interview stated that:

“I had a hard time when learning was done online. The difficulty is conditioning parents in accompanying their children to learn, network constraints, parental understanding of information technology. So as long as learning is carried out online, the learning objectives are less achieved”.

Based on the statement above, online learning posed several problems like network constraints and parental understanding of technology. This is in line with the research conducted by Malboeuf-Hurtubise et al. (2021). They explained that online learning during the Covid 19 period makes student learning motivation and outcomes decrease due to boredom. There are some efforts to overcome this problem. According to clinical and developmental psychology research, interventions should be based on socio-emotional learning, because this foundation promises to reduce psychological distress, encourage persistence in school and promote academic achievement (Jiao et al., 2020).

CONCLUSION

Based on the explanation of the results of the research above, it can be concluded that the present study investigated the effect of SCBLLM to improve students' reading and reasoning skills in elementary school. Based on the results of limited tests and extensive tests that have been conducted, the model is proven to be effective in improving students' reading and reasoning skills. The results of the field test showed that there was a significant increase in students' reading and reasoning skills. However, in improving reading and reasoning skills, commitment and consistency of all school parties are needed

to actively and continuously promote reading habits within a certain time limit, both during learning hours and beyond learning hours.

ACKNOWLEDGEMENTS

We would like to thank Dirjen DIKTI (Directorate General for Higher Education) for giving a fully funded scholarship to the first author. We also thank the Postgraduate School of Universitas Pendidikan Indonesia for supporting this research.

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