Premise : Journal of English Education and Applied Linguistics
e-ISSN: 2442-482x, p-ISSN: 2089-3345
https://fkip.ummetro.ac.id/journal/index.php/english
DOI: *10.24127/pj.v11i3.4747*

READING COMPREHENSION AND SELF-REGULATED LEARNING: A CROSS-SECTIONAL STUDY OF UNIVERSITY STUDENTS

by
Cayandrawati Sutiono
English Education, Universitas Lambung Mangkurat,Indonesia
cayandrawati01@ulm.ac.id
Novita Triana
English Education ,Universitas Lambung Mangkurat, Indonesia
novita_triana@ulm.ac.id
Elvina Arapah
English Education, Universitas Lambung Mangkurat, Indonesia
elvina_arapah@ulm.ac.id

(Received: 08-01-2022 Review1: 30-01-2022 Revised1: 30-06-2022 Revised2: 20-09-2022 Accepted: 05-10-2022 Published: 30-10-2022)

Abstract

Reading is a critical component of academic life. Undergraduate students' course success depends much on how they process their reading. However, some studies show that students face difficulties in their reading in several terms. These difficulties are twofold for English as a Foreign Language students who have to deal with reading and language content. In this respect, students must be able to self-regulate their reading activities in and outside classrooms. This study was intended to investigate the students' levels of self-regulated learning in reading comprehension. This study used a cross-sectional design with 40 English Language Education Study Program students at *Universitas Lambung Mangkurat*. The instrument was a questionnaire adapted from Zimmerman's Academic Self-Regulated Learning Scale (2000). The questionnaire was distributed online to the students using Microsoft Forms. The data were analyzed using a t-test. The findings show that the ways both groups of students regulate their cognitive processes, motivation, and behavior within an educational setting are similar. Nevertheless, concerning that the fourth-semester students might be more organized SRL students than the second-semester ones, reading instructions must be structured to develop students' self-regulated learning. In other words, lecturers should condition the instructions to enhance the students' self-regulation.

Keywords*: reading comprehension, self-regulated learning*

INTRODUCTION

There have been many studies in reading comprehension with many different variables and methods. However; studies with reading comprehension and self-regulated learning are rare, especially a cross sectional study(Ahmed, 2021a; Cosentino, 2017a; Dreisoerner et al., 2021; Mohammadi et al., 2020; Schunk & Zimmerman, 2007). Hence the study fills the gaps with

How to cite this article:
Sutiono, C., Triana, N., & Arapah, E. (2022). Reading comprehension and self-regulated learning : *Premise: Journal of English Education and Applied Linguistics*, *11*(3), 219–237. https://doi.org/ 10.24127/pj.v11i3.4747

some goals to achieve. This study was intended to investigate the students' levels of self-regulated learning in reading comprehension. This study used a cross-sectional design with 40 English Language Education Study Program students at *Universitas Lambung Mangkurat*.

Although reading comprehension is regarded as the heart of academic life, many studies reported that university students face difficulties in reading comprehension. The difficulties encompass making inferences, obtaining the gist of the text, managing the reading tasks (Ahmed, 2021b), analyzing, inferring, and evaluating information in the text (Kendeou et al., 2014), working out the meaning of difficult words, identifying supporting ideas/examples (Alghail & Mahfoodh, 2016). These difficulties are likely because university students take the surface approach to reading, where information provided in the text is considered isolated and unlinked. In contrast, they should be able to process the information using their high-order cognitive skills (Hermida, 2009). Moreover, applying high-order cognitive skills might become another challenge for English as a Foreign Language (EFL) students who have to deal with both the language and the reading content.

Furthermore, in the context of EFL learning, reading comprehension can be regarded as the core aspect whereby the students learn how grammar and vocabulary are used within context. For university students majoring in English, an excellent ability to read in English becomes the main factor determining their success in the courses. By having good reading skills, they are likely able to improve their vocabulary mastery and, at the same time, increase their knowledge of many things. They also have a chance to improve their listening, speaking, and writing skills. (Mikulecky, 2008) contended that reading comprehension is the basis of instruction in several teaching programs to improve vocabulary, writing, grammar, and other general language courses. In this respect, students must have good planning and arrangement of learning activities, both in and outside the classroom. They need to self-regulate their learning process to maximize the knowledge obtained from reading.

Self-regulated learning (SRL) has been perceived as a significant factor in academic achievement. Learners who have good SRL personally activate and sustain their cognitions affects, and behaviors oriented towards the attainment of their learning goals systematically (Zimmerman & Schunk, 2011a). The SRL processes occur in a cycle of three phases: the forethought phase, in which learners set their learning goal and plan some strategies to achieve it; the performance phase, wherein the learners monitor and regulate their performance; and the self-reflection phase, in which the learners reflect the results of their learning. The cycle then

repeats as the learners use their reflection to adjust and prepare for the following tasks. Furthermore, in recent years, researchers have suggested that motivational variables also interact significantly with the SRL processes. To become self-regulated students, they need intrinsic motivation and persistence when faced with difficulties (S. & Valle, 2008); (Dignath & Büttner, 2008); (Efklides, 2011)).

Additionally, according to (Wolters, 2003), self-regulation is a process involved in monitoring, managing, and controlling factors such as cognition, motivation, behavior, and the environment to obtain self-setting goals. In this respect, the particular components of SRL, such as memory strategy, goal-setting, self-evaluation, seeking Assistance, environmental structuring, Responsibility, and organizing, can be helpful in any task. However, only some students can naturally self-regulate their learning process because they need to get the ability automatically (Maftoon & Tasnimi, 2014a). Regardless of their age and length of study, students will only obtain their self-regulated learning ability if they know the strategies themselves.

Several studies have reported the significant role of SRL in students' reading comprehension. (L. Chu et al., 2020a) argued that self-regulated learning helped primary school students manage their learning process and adopt correct behavior to maintain their reading habits. Similarly, their study on junior undergraduate students (Mohammadi et al., 2020) highlighted that SRL instruction significantly improved EFL learners' reading comprehension and problem-solving. Studies conducted on primary school students have shown that some SRL components were the main predictors of reading comprehension processes (Qi, 2021); (Mohammadi et al., 2020); (Lau & Ho, 2016); (Ayşe & Ali, 2016); (Eissa, 2015); (Souvignier & Mokhlesgerami, 2006b).

They are the students' cognitive and metacognitive thinking skills, control strategy, and elaboration strategy. (L. Chu et al., 2020) mentioned that practicing self-regulation on students enables them to have and use effective strategies to maintain their reading habits. Moreover, (Cirino et al., 2017) also specified some components of SRL linked to reading. They include the activation of background knowledge, strategy use, self-efficacy, motivation, and performance goal orientations.

The findings mentioned above have displayed how SRL interplay with reading comprehension. However, many of the studies involved primary school students as participants. Before this study, some problems with ELESP students' reading comprehension were identified.

They needed more arrangements and planning in learning, such as determining goals and materials and setting learning activities, so the achievement could be more optimal. They also had shallow English reading habits and strategies that could be seen from their ability when given reading material as an assignment. Most of them could not complete the task because they needed to read better. In addition, they needed more mastery of students' English vocabulary.

Concerning the process of reading, scholars define reading in several ways. (Clapham, 2009) perceived reading as the reader's ability to understand written or printed symbols that are used to retrieve or guide the recovery of information from his memory; subsequently, the information is used to construct a reasonable interpretation of the author's message. (Snow, 2002) contended that in reading comprehension, the reader process the text by simultaneously extracting and constructing meaning through interaction and engagement with written language emphasizing both the importance and the insufficiency of the text as a determinant. The process entails three elements: the reader (the person doing the), the text (the written or printed language to be comprehended), and the activity (what the reader does to comprehend the text). Reading comprehension is also referred to as the reader's ability to understand the superficial and concealed meanings of the text using their meta-cognitive reading strategies (Reza Ahmadi et al., 2013). In addition, (Park, 2020) noted that reading comprehension involves the reader's ability to remember detailed information essential to conclusions. Reading comprehension is not merely a passive skill toward written text; it involves different cognitive and meta-cognitive strategies to understand the message conveyed.

This study was carried out to investigate the second and fourth-semester students' levels of SRL in reading comprehension in terms of SRL components, i.e., memory strategy, goal setting, self-evaluation, seeking Assistance, environmental structuring, Responsibility, and organizing. Comparing the two groups of students would provide some perspectives on students' levels of SRL in reading comprehension. This study gets answers to the following research questions.

1. Is there any significant difference in SRL levels in reading comprehension between the second and fourth-semester students?
2. How do the SRL levels in reading comprehension between the two groups of students differ regarding the SRL components?

METHOD

Design

This research was causal-comparative since the data gathered was in the form of numbers that intended to investigate whether there was a significant difference between the second and fourth-semester students. The decision to use this design was because the differences between the two groups of students had presumably occurred before the study was conducted (Fraenkel & Wallen, 2006), and it was due to their length of study. This study used a cross-sectional survey design in which two predetermined groups of students were compared (P. Chu & Chang, 2017); (Testa, 1979). The information about the students' SRL levels in reading comprehension was collected at just one point at a time through an online survey.

Participant

There were 40 students involved in this study: 19 second-semester students and 21 fourth-semester students of the English Language Education Study Program (ELESP), *Universitas Lambung Mangkurat*, Banjarmasin. The selection of the students was based on their reading comprehension scores in Advanced Reading Course. Ten students were classified into students with high scores, and the other ten were categorized into those with low scores. Thus, the sampling technique employed 'purposive sampling' as a non-probability approach.

Instrument

This study required two kinds of data: students' reading scores and SRL levels. The reading scores were obtained from the accumulation of students' Advanced Reading Course scores, and their SRL levels were taken from the Academic Self-Regulated Learning Scale (ASRLS). The instrument for this study was a questionnaire adapted from (Zimmerman & Schunk, 2011b). It consisted of 28 statements on a 4- point scale. The statements covered the components of memory strategy, goal setting, self-evaluation, seeking Assistance, environmental structuring, Responsibility, and organizing. The questionnaire was distributed online to the students using Microsoft Forms.

Data Collecting Technique

The steps in implementing the solutions to overcome the problems use self-regulation strategies. They include (1) identifying low student achievement, especially the low reading ability of students of the ELESP, Faculty of Teacher Training and Education of both *Universitas Lambung Mangkurat* (ULM); (2) selecting low-achieving students; (3) preparing and compiling the necessary materials on Self-Regulation that will be used; (4) giving a presentation of self-regulation and its benefits for improving achievement. The presentation includes giving short online tutorials on self-regulated learning to students. The contents were about planning, setting goals, building motivation, monitoring success and processes, evaluating and reflecting on what had been achieved, and (5) participants filling out (Zimmerman & Schunk, 2011b).

Data Analysis Technique

In data analysis, students' responses to the ASRLS were statistically computed to categorize the students into groups of high, moderate, and low levels of SRL. Statistical computation was also used to determine the mean, standard deviation, minimum and maximum scores, and range. The following analysis was on the fulfillment of statistical assumptions of the data, i.e., homogeneity and normality. Finally, when all these statistical assumptions were fulfilled, parametric testing using a t-test was deployed to determine whether there was any significant difference in the mean scores of both groups. On the contrary, non-parametric testing was utilized if one or more statistical assumptions were not fulfilled. On the other hand, the citing process employed offline citing using Mendeley Desktop in both text and list of references(Turmudi, 2020).

RESULT AND DISCUSSION

The aims of this study were twofold. First, it attempted to compare the SRL levels in reading comprehension between the second and fourth-semester students of ELESP Universitas *Lambung Mangkurat*, Banjarmasin. Second, it tried to describe the difference of SRL levels in reading comprehension in terms of SRL components, i.e. (1) Memory Strategy (1), Goal Setting (2), Self-Evaluation (3), Seeking assistance (4), Environmental Structuring (5), responsibility (6), and Organizing (7).

Result

The significant difference in the SRL levels in reading comprehension

The first research question that this study tried to answer was whether there was any significant difference in SRL levels in reading comprehension between the second and fourth-semester students. Based on the descriptive statistical computation, the types of descriptive statistics used are the mean, median, and mode.

Table 1. The Descriptive Statistics of the Data for Group 1 and Group 2

			Statistic	Std. Error
Group 1	Mean		79.90	2.469
	95% Confidence Interval for Mean	Lower Bound	74.73	
		Upper Bound	85.07	
	5% Trimmed Mean		80.33	
	Median		81.50	
	Variance		121.884	
	Std. Deviation		11.040	
	Minimum		54	
	Maximum		98	
	Range		44	
	Interquartile Range		13	
	Skewness		-.795	.512
	Kurtosis		.935	.992
Group 2	Mean		85.50	1.372
	95% Confidence Interval for Mean	Lower Bound	82.63	
		Upper Bound	88.37	
	5% Trimmed Mean		85.72	
	Median		87.50	
	Variance		37.632	
	Std. Deviation		6.134	
	Minimum		73	
	Maximum		94	
	Range		21	
	Interquartile Range		7	
	Skewness		-.928	.512
	Kurtosis		.052	.992

As can be seen from Table 1, the mean is 79.90 and 85.50, which differ quite significantly. The first interpretation of the output is to ensure that the data is valid. For both groups, there are 20 data each. Unfortunately, 50% of the data was statistically considered missing, and only 50% was considered valid, as shown in Table 2.

Table 2. Case Processing Summary of the Output

Data	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent

Group 1	20	50.0%	20	50.0%	40	100.0%
Group 2	20	50.0%	20	50.0%	40	100.0%

Due to the low percentage of data validity, normality testing was used. It measured whether the data were typically distributed to apply inferential or parametric statistics. The results of normality testing can be seen in Table 3.

Table 3. Test Results of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Group 1	.137	20	.200*	.939	20	.230
Group 2	.197	20	.041	.891	20	.028

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The results from Table 3 show that the data normality test for both groups has been previously tested using Lilliefors because the data is less than 100. In addition, using SPSS, the data were tested using Kolmogorov-Smirnov and Shapiro-Wilk. The statistical test criteria are if the Significance Value is more than 0.05, the data is normally distributed. From Table 3, the significance value is 0.200 and 0.041. It means only data for Group 1 is normally distributed based on Kolmogorov-Smirnov. However, the data for Group 2 is not normally distributed.

For Shapiro-Wilk calculation, the coefficient values of both Tables of coefficient and Table of p-value are 0.0140 and 0.905. To claim that the data distribution is normal, Wilk Count should be more than Wilk Table. From Table of coefficient a, it can be said that the data are normally distributed because 0.230 and 0.028 are more than 0.0140.

Since data normality for Group 1 and Group 2 can be said as uniquely and slightly different, outlier testing for data distribution is necessary. The two distribution, as seen in Figure 1, are compared as equal and normal because the points on the Q-Q plot almost perfectly lies on a straight line x = y.

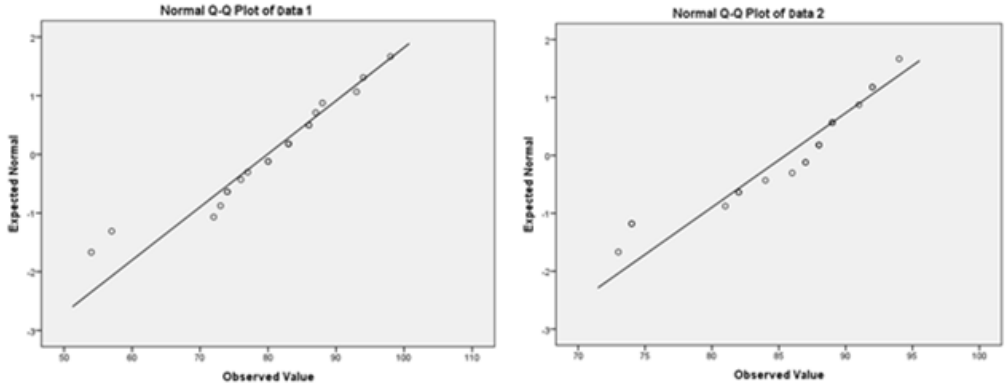

Figure 1. Graph of Normal Q-Q Plot of Data 1 and 2

Detrended Normal Q-Q Plot for both data is interpreted by considering whether the points are not far from the line of 0.0. For both data, it can be interpreted that the points spread equally around the line of 0.0. Two points for both data go pretty far from the line of 0.0 (See Figure 2).

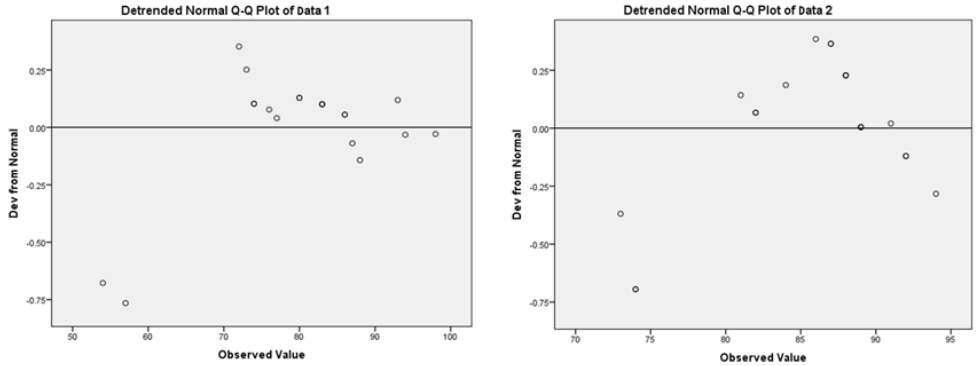

Figure 2. Graph of Detrended Normal Q-Q Plot of Data 1 and 2

Since the data of both groups are not similarly and normally distributed, Mann-Whitney Test is used to investigate the mean difference of SRL results from both groups. The output is seen in both Table 4 and Table 5. Based on Table 4, the mean rank of Group 2 is higher than Group 1.

Table 4. Ranks of Mann-Whitney Test Output

	Group	N	Mean Rank	Sum of Ranks
Data Homogeneity Testing	1.00	20	16.93	338.50
	2.00	20	24.08	481.50
	Total	40		

Based on the output of 'Test Statistics,' from Table 5 of the Mann-Whitney test above, it is known that the Asymp value. Sis (2-tailed) of 0.053 is more excellent than the> 0.05 probability value. So, it can be concluded that Ho is accepted, which means there is no difference between

Group 1 and Group 2. In conclusion, the results of the t-test showed no significant difference between Group 1, the second-semester students, and Group 2, the fourth-semester students.

Table 5. Test Statistics of Mann-Whitney Test Output

	Data Homogeneity Testing
Mann-Whitney U	128.500
Wilcoxon W	338.500
Z	-1.938
Asymp. Sig. (2-tailed)	.053
Exact Sig. [2*(1-tailed Sig.)]	.052[b]

a. Grouping Variable: Group
b. Not corrected for ties.

The differences in students' SRL levels in reading comprehension in terms of SRL components

Another research question that this study tried to answer was how the SRL levels in reading comprehension between the two groups of students differed regarding the SRL components. The SRL raw data investigated for both the second and fourth-semester students, as the average score can be seen in Tables 6 and 7, are based on these SRL Components: Memory Strategy (1), Goal Setting (2), Self-Evaluation (3), Seeking assistance (4), Environmental Structuring (5), responsibility (6), and Organizing (7).

Each component comprises a specific statement to identify the students' self-regulation in reading. The samples of the statements of each component are as the following. The Memory Strategy includes "*I write down the information to remember* and *summarize my readings*." The Goal Setting covers the statements." *I make a detailed schedule of my weekly reading activities* and *a timetable of all the activities I have to complete*." The Self-Evaluation comprises "*I ask someone better off for guidance when I am having trouble with the course material*, and *I evaluate my learning progress at the end of each lesson*." The Seeking Assistance includes "*I use search engines (Google, Bing, etc.) to find the information I need,* and *I ask my classmates about reading assignments*." Environmental structuring involves "*avoiding noisy places when I read*; *I cannot read in a poorly lit room*." The responsibility embraces *"I do my reading assignment immediately* and *prioritize reading over other activities*." Lastly, the Organizing components encompass statements. "*I highlight essential concepts and information. I find this in my readings* and *picture how the test will look based on previous tests*."

Table 6. SRL Score for each component of the Second Semester Students

Respondent	Sem.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A	2	15	9	12	12	8	9	18
B	2	15	9	10	13	7	9	17
C	2	16	11	13	15	9	10	19
D	2	15	9	11	12	10	9	20
E	2	14	5	10	11	11	6	15
F	2	14	7	11	11	8	8	17
G	2	11	9	7	5	4	6	15
H	2	13	6	10	13	8	6	17
I	2	14	6	13	13	9	11	21
J	2	17	9	15	16	10	9	22
K	2	12	9	11	13	7	7	15
L	2	14	8	11	14	9	9	18
M	2	17	7	10	13	9	6	15
N	2	15	7	12	15	8	10	19
O	2	13	7	10	15	9	10	19
P	2	16	10	13	13	10	11	21
Q	2	14	9	13	11	8	8	18
R	2	15	8	9	11	9	9	15
S	2	15	7	12	12	10	10	24

There is a difference in the total number of second and fourth-semester students. However, one difference in number does not give any significant variance results.

Table 7. SRL Score for each component of the Fourth Semester Students

Respondent	Sem	(1)	(2)	(3)	(4)	(5)	(6)	(7)
T	4	16	8	12	13	10	10	22
U	4	14	7	12	15	11	7	20
V	4	15	6	9	12	8	8	16
W	4	17	10	11	12	11	9	19
X	4	13	6	16	16	10	9	24
Y	4	14	7	12	12	10	8	18
Z	4	15	7	11	15	10	8	22
AA	4	15	8	10	14	10	9	22
AB	4	16	10	13	14	8	9	22
AC	4	12	8	10	12	8	9	17
AD	4	16	6	12	14	9	10	15
AE	4	16	8	13	13	9	7	18
AF	4	11	6	10	11	9	8	19
AG	4	17	8	13	11	9	10	21
AH	4	14	6	12	14	11	9	23

AI	4	15	8	13	13	8	9	21
AJ	4	15	9	12	15	8	7	21
AK	4	17	9	14	12	9	8	23
AL	4	16	9	14	15	10	6	18
AM	4	12	6	10	11	9	7	18
AN	4	12	8	11	12	10	7	22

In order to interpret the scores of each component, a table of criteria must be made (see Table 8). The criteria are divided into Very Good, Good, Enough, and Less.

Table 8 The score and criteria of the questionnaire results

Criteria	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Very Good	16 – 20	10 – 12	13 – 16	13 – 16	10 – 12	10 – 12	19 – 24
Good	11 – 15	7 – 9	9 – 12	9 – 12	7 – 9	7 – 9	13 – 18
Enough	6 – 10	3 – 6	5 – 8	5 – 8	3 – 6	3 – 6	7 – 12
Less	≤ 5	≤ 3	≤ 4	≤ 4	≤ 3	≤ 3	≤ 6

Of the six items for memory strategy, most students from both groups are in the category of 'Good.' Sixteen students from Group 1 and 12 from Group 2 fall into this category. Both groups 4 and 8 students are even in 'very good.' As for goal setting, 15 students from Group 1 and 12 from Group 2 are also in the 'Good' Category. For self-evaluation, 14 students of Group 1 and 13 students of Group 2 are under the category of 'Good,' too. For seeking assistance, 12 students from Group 1 and 11 students from Group 2 are in 'Good.' The environmental structuring shows that in Group 1, there are 13 students, and in Group 2, there are 11 students who belong to 'Good.' For responsibility, six students from Group 1 are 'Very Good,' nine students are 'Good' meanwhile 18 students from Group 2 are 'Good.'. Lastly, for organizing, 11 students from Group 1 are 'Very Good.' 13 students are 'Very Good,' and seven are good from Group 2.

Discussion

The statistical computation for the mean scores of each SRL component depicts that there was not much difference between the second-semester and the fourth-semester students, as shown in Table 8.

Table 8. SRL scores for each component of the two groups

SRL Components	Second Semester		Fourth Semester		Difference
	Total	Average	Total	Average	

Memory Strategy	275	14.47	308	14.67	0.2
Goal Setting	152	8.00	160	7.62	0.38
Self-evaluation	212	11.16	250	11.90	0.74
Seeking Assistance	238	12.53	276	13.14	0.61
Environmental Structuring	163	8.58	197	9.38	0.8
Responsibility	159	8.37	174	8.29	0.08
Organizing	345	18.16	421	20.05	1.89

Table 8 portrays that the highest difference in the mean score of all components was in terms of organizing (1.89 points). The fourth-semester students showed a slightly higher average than the second-semester students. The organizing component covers several indicators. They include highlighting essential concepts and information and imagining the would-be-faced reading exam questions based on the previous exam. They also include putting past-time notebooks and handouts in a particular container, reading at one's own pace, tidying up the study area, and ensuring it is clean before studying. From the difference of 1.89, the fourth-semester students can be said to be more organized regarding their reading technicalities.

The second-highest difference in the mean scores is in environmental structuring. It involves isolating oneself from noisy places when reading, not reading in a poorly light room, and turning one's cell phone off to concentrate on reading. The difference of 0.8 with the fourth-semester students owning higher average scores than their counterparts indicates that the former is better at structuring their environment than the latter.

The self-evaluation becomes the third component with a slightly high mean score difference. It includes asking for guidance from someone more capable, evaluating the progress of learning achieved at the end of each lesson, recording all the progress of learning made for a reading course, and monitoring the progress of reading ability. With a difference of 0.74, in which the fourth-semester students depict higher average scores than their counterparts, it can be said that the fourth-semester students are better at evaluating themselves in their reading activities than the second-semester students are.

Furthermore, seeking assistance encompasses using library resources and other search engines to find the information needed, asking a classmate about a particular reading assignment, learning from a classmate by comparing their reading understanding, and explaining what they have learned to peers. The difference in average score between the second and fourth-semester students is 0.61, whereby the fourth-semester students have a slightly higher average score than the second-semester ones. Regarding the length of study, it can be assumed that the fourth-semester students have been familiar with their learning environment

and peers, so they have owned their strategies to seek assistance. However, since the self-regulated ability only automatically grows with age and length of study, further study needs to be conducted to determine how this strategy develops in the students and their length of study in the university.

Although the statistical computation shows a slight difference in average score, which is 0.38, the goal setting is worth some attention since the findings show that second-semester students produce higher average scores than their counterparts. The goal-setting component comprises making a detailed schedule for reading a book in a week, making a timetable of the books one has to complete reading, and planning what one has to read in a week. The difference of 0.38 might show that the second-semester students are more goal-oriented in setting their reading plans.

The memory strategy and responsibility become the last two components out of the six components of self-regulated learning strategies. The memory strategy includes writing information to remember in note cards, summarizing what is read, making outlines as guides while studying, visualizing words in mind from the books being read, and reading aloud lecture notes when studying for the exam. Meanwhile, responsibility deals with doing one's reading assignment immediately, prioritizing one's reading over other activities, and finishing one's reading before doing anything less important. The difference of 0.2 for memory strategy indicates how both groups managed their SRL similarly, although there is a one-year difference in the study length. Additionally, the responsibility component owns a shallow difference between the two groups, which is 0.08. It can be inferred that there is almost no difference in responsibility between the two groups.

Based on the findings, the ways the students or participants of this study regulate their cognitive processes, motivation, and behavior within an educational setting were similar between those of the second and the fourth semester. It is also necessary to note that the fourth-semester students have slightly higher average scores than those of the second semester in most components of SRL. In terms of the criteria of the questionnaire, the highest level shown is *Good* among the two groups. In addition, some students of both groups are at a *Very Good* level at applying specific strategies such as memory, responsibility, and organizing.

The characteristics of self-regulated learners can be summarized as actively participating in their learning, persisting in instructional tasks, prevailing over problems, and liking to work together (El-Henawy et al., 2010). Based on the findings, all indicators of the self-regulated

learning components showed that the students were active learners, persevered in their reading assignments, solved problems raised, and enjoyed collaborating. It shows that components of SRL strategies are reflected in the level of *Good* and *Very Good*.

Since this study's findings show no difference in the SRL levels of both the fourth and second students, they might convince the findings of other studies that age or length of study does not directly affect the student's ability to self-regulate their learning. In other words, students need to get their self-regulation ability in learning automatically. (Maftoon & Tasnimi, 2014) contended that self-regulated learning could be taught and utilized to increase students' learning achievement. Therefore, they suggested that teachers should facilitate students to practice their self-regulation. Reading classes should engage students with reading comprehension activities and ways to improve their self-regulation ability in reading. Tasks and activities provided in the reading classes have to be related to self-regulation, which is carried out through either explicit or implicit learning.

Furthermore, several ways can be engaged with reading instructions to enhance students' SRL. (Cosentino, 2017b) conducted a study with struggling readers who, in the end, applied the SRL strategies. Providing opportunities for students to discuss the importance of goal setting can help increase their SRL ability. Besides that, the discussion on the student's desire to improve and the choice of strategies that they utilize to reach their goals can contribute to their becoming self-regulated learners. To conclude, reading comprehension is vital in improving undergraduate students' academic achievement in other courses. Therefore, involving SRL components in students reading classes will likely improve their reading comprehension and academic achievement in other courses.

CONCLUSION AND IMPLICATION

This study intended to investigate the second and fourth-semester students' levels of SRL in reading comprehension in terms of SRL components, i.e., memory strategy, goal setting, self-evaluation, seeking Assistance, environmental structuring, Responsibility, and organizing. All participants studied at English Language Education Study Program, Universitas Lambung Mangkurat. In this study, the second and fourth-semester students applied the SRL strategies with the Good criteria. Although the fourth-semester students were assumed to have applied better SRL strategies than the second-semester students, the results of this study showed a slightly different conclusion. Based on the findings that showed how the fourth-semester

students might be more organized SRL students than the second-semester students, reading instructions must be structured to develop students' self-regulated learning ability. Lecturers should condition the instructions to enhance the students' self-regulation.

Self-regulation in reading would lead to two advantages: improved feelings of personal control over reading and increased reading self-efficacy. These advantages may also result in an increased positive influence on reading. Self-regulated learning is vital for making students responsible for themselves in learning. The students will likely have the habit of planning and the ability to organize and evaluate what they do. They can build motivation and self-confidence to show abilities according to their fields, achieve better academic achievement and improve abilities to a better level. The limitation of this study is that further exploration of the effects of self-regulation strategies on students' self-efficacy, motivation, and reading comprehension was not conducted. In short, the effects of SRL components were not investigated and discovered. Further researchers might carry out studies to investigate the effects of SRL on those components.

ACKNOWLEDGEMENTS

This study is only possible with the support and help from many parties. Firstly, it is the Dean of Teacher Training and Education Faculty of ULM; then, the head of ELESP of ULM and all students who participated in this study.

BIO-PROFILE

Cayandrawati Sutiono has been a faculty member in the ELESP of Universitas Lambung Mangkurat (ULM) for more than 25 years. She holds her bachelor of Arts in English Education from ULM, her Master's Degree in Curriculum and Instruction/ TESL from the University of Kansas, USA, and her Doctoral Degree in English Language Teaching from Universitas Negeri Malang. Her expertise is in ELT, especially in Reading and Language Assessment.

Novita Triana graduated from ULM with her Undergraduate Degree and her Master's Degree from the University of Sydney, specializing in Applied Linguistics. Her Doctoral Degree was from Universitas Negeri Malang. Her areas of interest are Linguistics, Language Assessment, and Cross-Cultural Communication.

Elvina Arapah is a teaching faculty in ULM and graduated from the same university in 2003 with her Undergraduate Degree. She obtained her Master of Arts from Universitas Negeri Malang. She has taught some courses, including Cross-Cultural Understanding, Curriculum and Instructions, and Error Analysis.

REFERENCES

Ahmed, W. M. A. (2021). Exploring EFL university learners' acquisition of advanced reading skills in the Yemeni context. *Indonesian Journal of Applied Linguistics*, *10*(3), 771–781.

Alghail, A. A. A., & Mahfoodh, O. H. A. (2016). Academic reading difficulties encountered by international graduate students in a Malaysian university. *Issues in Educational Research*, *26*(3), http://iier.org.au/iier26/alghail.pdf.

Ayşe, O. ccedil, & Ali, A. (2016). The impact of self-regulated learning on reading comprehension and attitude towards Turkish course and metacognitive thinking. *Educational Research and Reviews*, *11*(8), 523–529. https://doi.org/10.5897/ERR2016.2692

Chu, L., Li, P.-H., & Yu, M.-N. (2020). The longitudinal effect of children's self-regulated learning on reading habits and well-being. *International Journal of Educational Research*, *104*, 101673. https://doi.org/10.1016/j.ijer.2020.101673

Chu, P., & Chang, YY. (2017). John W, Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. *Journal of Social and Administrative Sciences*, *4*(June).

Cirino, P. T., Miciak, J., Gerst, E., Barnes, M. A., Vaughn, S., Child, A., & Huston-Warren, E. (2017). Executive Function, Self-Regulated Learning, and Reading Comprehension: A Training Study. *Journal of Learning Disabilities*, *50*(4), 450–467. https://doi.org/10.1177/0022219415618497

Clapham, D. (2009). Introduction to the special issue–a theory of housing: problems and potential. *Housing, Theory and Society*, *26*(1), 1–9.

Cosentino, C. L. (2017). The Effects of Self-Regulation Strategies on Reading Comprehension, Motivation for Learning, and Self-Efficacy with Struggling Readers. *ProQuest Dissertations and Theses*, *68*, 353. https://search.proquest.com/docview/1946738657?accountid=136549

Dignath, C., & Büttner, G. (2008). Components of fostering self-regulated learning among students. A meta-analysis on intervention studies at primary and secondary school level. *Metacognition and Learning*, *3*(3), 231–264.

Dreisoerner, A., Junker, N. M., & van Dick, R. (2021). The Relationship Among the Components of Self-compassion: A Pilot Study Using a Compassionate Writing Intervention to Enhance Self-kindness, Common Humanity, and Mindfulness. *Journal of Happiness Studies*, *22*(1), 21–47. https://doi.org/10.1007/s10902-019-00217-4

Efklides, A. (2011). Interactions of metacognition with motivation and affect in self-regulated learning: The MASRL model. *Educational Psychologist*, *46*(1), 6–25. https://doi.org/10.1080/00461520.2011.538645

Eissa, M. A. (2015). The Effectiveness a Self Regulated Learning- Based Training Program on Improving Cognitive and Metacognitive EFL Reading Comprehension of 9th Graders

with Reading Disabilities. *International Journal of Psycho-Educational Sciences*, *4*(3), 49–59.

El-Henawy, W. M., Dadour, E.-S. M., M, Salem. M., & El-Bassuony, J. (2010). Self-regulated learning in english language instruction. *The First International Conference, College of Education, Port Said University*, *2*, 825–851.

Fraenkel, J. P., & Wallen, N. E. (2006). *How to Design and Evaluate Research in Education (Eight Edition)*. McGraw Hill Companies.

Hermida, A. (2009). The blogging BBC: Journalism blogs at "the world's most trusted news organisation". *Journalism Practice*, *3*(3), 268–284.

Kendeou, P., Van Den Broek, P., Helder, A., & Karlsson, J. (2014). A cognitive view of reading comprehension: Implications for reading difficulties. *Learning Disabilities Research & Practice*, *29*(1), 10–16.

Lau, K., & Ho, E. S. (2016). Reading Performance and Self-regulated Learning of Hong Kong Students: What We Learnt from PISA 2009. *The Asia-Pacific Education Researcher*, *25*(1), 159–171. https://doi.org/10.1007/s40299-015-0246-1

Maftoon, P., & Tasnimi, M. (2014). Using self-regulation to enhance EFL learners' reading comprehension. *Journal of Language Teaching and Research*, *5*(4), 844.

Mikulecky, B. S. (2008). Teaching reading in a school language. *Pearson Education*.

Mohammadi, R. R., Saeidi, M., & Ahangari, S. (2020). Self-regulated learning instruction and the relationships among self-regulation, reading comprehension and reading problem solving: PLS-SEM approach. *Cogent Education*, *7*(1). https://doi.org/10.1080/2331186X.2020.1746105

Park, A. Y. (2020). A comparison of the impact of extensive and intensive reading approaches on the reading attitudes of secondary EFL learners. *Studies in Second Language Learning and Teaching*, *10*(2), 337–358.

Qi, X. (2021). Effects of Self-Regulated Learning on Student's Reading Literacy: Evidence From Shanghai. *Frontiers in Psychology*, *11*, 3590. https://doi.org/10.3389/fpsyg.2020.555849

Reza Ahmadi, M., Nizam Ismail, H., & Kamarul Kabilan Abdullah, M. (2013). The Importance of Metacognitive Reading Strategy Awareness in Reading Comprehension. *English Language Teaching*, *6*(10), 235–244. https://doi.org/10.5539/elt.v6n10p235

S., R., & Valle, M. (2008). Tactile Sensing for Robotic Applications. *Sensors: Focus on Tactile Force and Stress Sensors*. https://doi.org/10.5772/6627

Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-Efficacy and self-regulation of reading and writing through modeling. *Reading and Writing Quarterly*, *23*(1), 7–25. https://doi.org/10.1080/10573560600837578

Snow, C. (2002). *Reading for understanding: Toward an R&D program in reading comprehension*. Rand Corporation.

Souvignier, E., & Mokhlesgerami, J. (2006). Using self-regulation as a framework for implementing strategy instruction to foster reading comprehension. *Learning and Instruction*, *16*(1), 57–71. https://doi.org/10.1016/j.learninstruc.2005.12.006

Testa, R. F. (1979). Educational Research: Competencies for Analysis and Application. *Journal of Research in Music Education*, *27*(4), 273–274. https://doi.org/10.2307/3344714

Turmudi, D. (2020). English scholarly publishing activities in the industrial revolution 4 . 0 : What , Why , and How ? *ELTEJ*, *3*(1), 52–63. http://journal2.uad.ac.id/index.php/eltej/article/view/1890

Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist*, *38*(4), 189–205.

Zimmerman, B. J., & Schunk, D. H. (2011a). *Handbook of self-regulation of learning and performance*. Routledge/Taylor & Francis Group.