International Journal of Instruction e-ISSN: 1308-1470 • www.e-iji.net



July 2020 • Vol.13, No.3 p-ISSN: 1694-609X

pp. 43-60

Received: 26/04/2019 Revision: 02/01/2020 Accepted: 07/01/2020 OnlineFirst:05/04/2020

Instructional Methods and Self-Regulated Learning in Writing

Mutiarani Pionera

Instructional Technology Doctorate Candidate of Universitas Negeri Malang, East Java, Indonesia, mutiaranipionera84@gmail.com

I Nyoman Sudana Degeng

Lecturer of Universitas Negeri Malang, Indonesia, nyoman.sudana.d.fip@um.ac.id

Utami Widiati

Lecturer of Universitas Negeri Malang, East Java, Indonesia, utami.widiati.fs@um.ac.id

Punaji Setyosari

Lecturer of Universitas Negeri Malang, Indonesia, punaji.setyosari.fip@um.ac.id

This study aims to examine the Instructional methods and self-regulated learning in writing english subjects. Instructional methods used are Cooperative Integrated Reading and Composition and Picture-Word Inductive Model (PWIM). This research used 2x2 factorial design and is included in a quasi-study involving students of class VII semester I of MTsN-1 Palangkaraya, Central Kalimantan as subjects. The number of students studied was 80 people from two different classes in the 2018/2019 school year. Data acquisition from the two classes was conducted randomly (cluster random sample). Researchers used the 2-way ANOVA technique to test the research hypotheses. The test results proved that (1) the CIRC method implemented in English learning can improve student writing skills when compared to the Picture Word Inductive Model (PWIM) method, (2) English writing skills in students with low self-regulated learning are better than students with high self-regulated learning, (3) the interaction of self-regulated learning with learning methods has been shown to affect students' skills in writing English texts. CIRC learning method based on self-regulated learning is recommended to be implemented as a learning method for improving students' writing skills. Specifically, the researcher concludes that CIRC is an effective learning method applied to students with high and low self-regulated learning in an effort to improve their writing skills.

Keywords: cooperative integrated reading, composition, picture word inductive model, self-regulated learning, writing skill, learning

Citation: Pionera, M., Degeng, I. N. S., Widiati, U., & Setyosari, P. (2020). Instructional Methods and Self-Regulated Learning in Writing. *International Journal of Instruction*, 13(3), 43-60. https://doi.org/10.29333/iji.2020.1334a

INTRODUCTION

The usage of cooperative learning is still interesting to be investigated. Data collected from many studies try to prove its advantages in learning, including its certain instructional methods implementation. Chin (2018); Kukulska & Viberg (2018); Popa et al., (2018); Gao (2018), Raja et al., (2018), and Shafee & Khavaran (2017), stated that cooperative learning helps learners to present their enthusiasm, courageous and involvement in accepting the tasks. The activities done cooperatively train them to explore their role and uses through the class. It actually prepares 21st century learners to realize how important a good cooperative work is in which individuals are needed by one each other (Johnson & Johnson, 2014). Gillies & Boyle (2010) in their study discussing six aspects of cooperative learning (implementation, group composition, task construction, learners' preparation, assessment, and teachers' reflection) concluded that learners can be more active to give their response since they learn together in a group.

Many studies reports the effectiveness of cooperative learning implemented in the class (Drakeford, 2012; Tran, 2014; Gull & Shehzad, 2015; Caicedo Trivino, 2016; Asakawa & Shiramizu, 2016; Astuti Lammers, 2017; Supanc et al., 2017; Buchs et al., 2018; Kutnick et al., 2018; Miquel & Duran, 2017; Eymur & Geban, 2017; Johnson & Johnson , 2017; and Carey & Dunn, 2018). Thus, it is commonly acquainted by many studies as the learning strategy optimizing diverse subjects of education.

However, cooperative learning carried out so far has not easily overcome the difficulties of students in first stage of junior high school (class VII) who take English subjects when learning about reading and writing. In general this happens because their diverse backgrounds in elementary school, even do not taught English optimally. This difficulty can be overcome by choosing cooperative learning methods that pay attention to students' literacy skills as well as the conditions that they feel.

The adaptation towards the new school environment (from elementary school to junior high school) which is still ongoing makes students less enthusiastic and makes it difficult for them to understand the importance of mastering language skills, especially writing skills. It means, there must be a deep discussion provided toward learners' psychology during the application of cooperative learning in their English course. Unfortunately, almost no studies try to examine this relation. It becomes a crucial thing for this study, therefore, to not only prove the significance of cooperative learning but also the potential of learners' psychology along with implementation of cooperative learning itself to improve learners' academic achievement. Since this study is interested to examine writing skill as learners' academic achievement, self-regulated is called for. Self-regulated learning is then examined as the learners' psychology based on previous studies analysed its relation with writing (Nami & Anshouri, 2012; Panadero, et.al, 2015; Alotaibi & Jabak, 2017; Göy, 2017).

Applying an appropriate cooperative learning is believed could help students to learn together in group and share each other what they have learned in order to get success of group (Gull & Shehzad, 2015). In the context of English as Foreign Language (EFL), Astuti & Lammers (2017) stated that learners attain more chance in using and

communicate the target language as their accountability through cooperative learning. Although Chen (2011) stated there is no significance in teaching pronunciation by using cooperative learning, this study along with (Gillies, 2014) which believes that it advances reading and writing achievement.

The incorporation of cooperative learning into writing activity conducted by Yumi & Erina (2015); Fujiwara & Sato (2015); Ghufron & Ermawati (2018) showed positive finding. It was proven that learners present their fluency and confidence in writing. This cooperative process of writing allows them to make interaction with peers, in case of discussing and revising their draft. Moreover, it initiates them to be appreciative toward their writing activities with peers.

Therefore, it is suggested to choose considerate19ly the most effective cooperative learning method which is not only to solve those problems but also support learners' learning outcomes. Considering positive prospects of cooperative learning in improving writing skill, this study raises the use of Cooperative Integrated Reading and Composition (CIRC), although fewer studies tries to analyse specifically. However, the scope of this study is to find out the contribution of CIRC in writing.

Cooperative Integrated Reading and Composition (CIRC) is the cooperative instructional method considering more about someone's progress in learning through step-by-step instructions. Those kinds of instructions attractively lead the learners to be engaged during the class. Slavin (1991) stated that CIRC asks learners to always discuss and accomplish tasks in team. It makes them learn how to be responsible towards not only their own achievement but also every member in their team.

It is indeed so that CIRC is specialized for reading and writing instruction. It is concentrated firstly as an effective strategy for the learners to improve their reading skill (Slavin, et.al, 2010), but then its significance towards reading and writing integration is also found in the further studies (Durukan, 2011; Hadiwinarto & Novianti, 2015; Gupta & Ahuja, 2015). The integration actually considers about learners' inclination to read and write in the same time since both of the skills complete each other (Cho & Brutt-Griffler, 2015). Activities in CIRC are also appropriated with the cognitive maturity of the learners (Gonzales & Torres, 2015) which creates them to learn cooperatively (Varişoğlu, 2016).

In other hands, several studies investigating reading and writing integration claim that Picture-Word Inductive Model (PWIM) also potentially supports learners to achieve their outcomes. It is a learning through generalization towards accepted information inductively (Calhoun, 1991). In this case, learners' reading and writing skill are achieved along with learners' ability development in generalizing (Swartzendruber, 2007). The problem was found by Jiang & Perkins (2013) in which there are no studies that completely analysed PWIM's effectivity to improve language skill, including reading and writing. In addition, the study result of Feng (2011) about PWIM was just merely presented as a description without attaching its significance. It becomes important, therefore, to conduct this study in order to propose an empirical result of

difference from the implementation of CIRC and PWIM statistically since both of them are convinced to improve learners' writing skill.

As it mentioned before, the implementation of instructional methods is not a single thing influenced learners' learning achievements. Their condition, identified as self-regulated learning, gives contribution too especially in writing (Schunk & Zimmerman, 2007; Zimmerman, 2008). This cognitive social theory is self-regulated ability needed in writing (Magno, 2009) which represents metacognition, motivation and behaviour of learners (Salter, 2012). It helps someone be better in learning and reinforcing ability inside, applying learning strategy, monitoring performance, and evaluating academic development (Zumbrunn, et.al, 2011).

Problem of Research

The analysis toward how significant CIRC and PWIM influenced learners' writing skill was the first problem in this study. As long as learners' psychology was predicted in affecting learners' writing skill, thus, this study considered the need of examining self-regulated learning of them too. All at once, this study was conducted to examine any interactions occurred between the instructional methods (CIRC vs. PWIM) and self-regulated learning (high vs. low) in writing.

REVIEW OF THE RELATED LITERATURE

CIRC Learning

According to Joyce, et al (2009) learning models that create a competitive learning environment, provide synergy to motivation, create good relationships among students, and improve their cognitive and social sides are called cooperative learning. The application of various forms of cooperative learning strived to be able to remove the isolation of students when they learn individually as well as open their views that learning or discussing together with friends is a fun and effective activity.

The CIRC method as a form of cooperative learning was initially developed in 1987 by Stevens et al. who examines the skills of effective reading, writing as well as a combination of language and writing arts. The development of CIRC starts from the analysis of aspects of problems that occur in learning to read, write and conventional language arts, namely (1) follow-up, (2) oral reading, (3) reading comprehension and (4) writing and language arts.

Table 1
The Reading-Writing Step Based on Three Elements of CIRC (Slavin, 1995)

1 he		ring Step Based on Three Elements of CIRC (Slavin, 1995)
	Element y	
1.	Story-related Activities	Partner Reading Students read the story silently, then in pairs do the reading aloud where students take turns to read the story per paragraph. Story Grammar & Story-related Writing In the middle of the story (when reading aloud still ongoing), students are asked to stop reading and begin to identify the contents of the story, relating to among others the characters/figures, problems, and the completion/ending of the story. Students are then asked to write a few paragraphs as their response to the topic of the story. Word Out Loud
		The teacher gives a reading of a story and students are asked to read correctly and not stammer out from some new words with a certain level of difficulty based on the story shared by the teacher. They must be able to read it correctly and not stammer. Students practice it (read a list of words) with a partner or team until they can read these words smoothly. Word Meaning
		The teacher gives a number of new words and students are asked to open a dictionary to find definitions from some of these words. Students then paraphrase the words explanation in the dictionary using their own language that shows the meaning of each word given by the teacher. As an example, "An octopus grabbed the swimmer with its eight long legs", rather than "I have an octopus"). Story Retell
		After the story has been read, students discuss with their partners about the suitability of the paraphrases with the definitions contained in the dictionary as well as the contents of the story. Together with their partners, students then summarize the results of their discussion in the form of points that become the essence of the story. Spelling
		Every week, in pairs students conduct tests to assess the ability of their partner's to spell a number of words. In this case, students use the disappearing list strategy where one new word will be given if one word can be spelled and continued until the entire list of words given has been spelled. Partner Checking
		If the student has completed all activities, the partner will fill in the assessment column indicating that he has reached the assignment criteria. The assessment column is prepared by the teacher by listing the activities that must be taken by students. Tests
		Every three class periods, students are given a comprehensive test of the story (which has been given and discussed earlier). Students are asked to write meaningful sentences from a number of words, and read aloud the words in front of the teacher and other groups. At this time, students must be independent and prohibited from
		providing assistance to their partners. This test score and evaluation of learning activities become the main components for the team's score every week.
2.	Direct Instruction in Reading Comprehension	Once every week, students are taught with direct learning methods regarding with the comprehensive reading skills. Instructions learned such as identifying main ideas, making conclusions and interpreting figurative language.
3.	Integrated Writing/Langu age Art	Learning of the writing emphasizes on the process-based writing approach and the mechanism of language is introduced as a part that helps in writing activities, not as a separate topic. For example, studying pronouns (modifiers) when writing descriptive paragraphs, or using quotes when students learn to write dialogue in making a narrative story.

The description of the activity often mentions "pairs" and "teams" which illustrate that students who are taught with CIRC form a team from reading group pairs Each team consists of 2 pairs with different reading levels; one pair from the group with high reading level and one pair from the group with low reading level. Each team receives points based on individual quiz scores, paperwork and report books (Slavin, 1995). Based on these provisions, then in this study the learner provide a reading test first in the experimental class before the activity. It aims to determine partners and teams when the learning proceeds.

Picture-Word Inductive Model (PWIM)

PWIM is designed to teach language systems in reading and writing activities by emphasizing the element of phonetic, grammar, mechanical, and the language use (Calhoun, 1999). In this case, students are directed to read and spell words obtained from images presented by the learner. The words are then listed in a word map called the picture word chart. Each student can also list these words in their own "word cards" with the help of the learner. The word card is used by students as a dictionary to help them remember the meaning of the words listed and its spelling. Through activities like this, students can indirectly enrich their vocabulary. For this reason, language learning with PWIM conduct a lot of repetition of activities (such as seeing pictures, mentioning words based on images, listening to the spelling of words made by learners, rereading words, spelling together and rereading words) in terms of remembering words that can strengthen the reading and writing skills (Calhoun, 1999). A discussion of the PWIM steps is presented in table 2 below.

Table 2

Steps of Learning with PWIM (Calhoun, 1999)

- 1. Determine the selected image
- 2. Asking students to identify the images presented
- 3. Name the part of the picture identified (draw a line from the part, mention the word, write the word; ask students to spell the word aloud and say it)
- 4. Read and review word charts on pictures (picture word charts) that have been made aloud
- 5. Asking students to re-read the words listed from the chart and classify them into groups (among other things based on the initial letters of words or rhymes)
- 6. Read and review word charts (say words, spell, re-say)
- 7. Add words (if necessary) to word charts, or into word banks
- 8. Directing students to give names / titles to word charts on, related to their meanings and information included in the charts
- 9. Asking students to make one/several sentence or paragraph based on the word chart in the picture. Sentence models are presented to make a good paragraph
- 10. Read and review paragraph sentences

Based on the table above, we can see several repetitions of activities (reading-spelling-reading) which emphasize that students must be able to recognize words correctly; related to the label that the word has to represent the picture, word writing as well as pronunciation. Recognition and memory of these words help students in compiling

meaningful writing when students enter the writing practice stage, which is adapted to the sentence or paragraph model presented by the teacher.

The learning objectives that implement PWIM in general are to teach students to be able to read sentences and paragraphs fluently (Calhoun, 1999). Nevertheless, students' writing skills should be taken into account in achieving fluency because the correct writing certainly contains the correct vocabulary so that the meaning of the choice of words can be understood. In addition, by enriching the vocabulary of foreign languages, students are expected to more easily be able to pour and translate their ideas into writing.

Self-Regulated Learning

SRL is a personal way of working for students which is become one of the factors in achieving learning outcomes in writing (Schunk & Zimmerman, 1998). The statement shows that SRL is interpreted as an effort conducted by students to be able to master their learning. In this case, metacognition, motivation, and behavior become regulatory components that support the formation of SRL (Zimmerman, 1990). In the metacognition component, the planning process, setting goals, organizing, monitoring, and self-evaluation can be called as a standard process that must be able to be conducted by the students in achieving academic mastery. While in the motivation component, students show the existence of high level of self-efficacy, self-attribution and intrinsic task interest. In the behavioral component, students make efforts to select, arrange and create an environment that can optimize their learning. In conclusion, defining SRL is inseparable from the component of metacognition, motivation, and behavior of students during the learning process, especially in showing the learning outcomes of writing skills. Therefore, the success or failure of student learning and how they deal with learning is believed to indicate the existence of an SRL in each student.

Students with SRL basically experience one of the SRL phases, namely the stage of *self-regulatory processes*. The SRL phases among others *forethought phase*, refers to the processes and beliefs that arise before occurs an effort to learn; *performance phase*, refers to the process that occurs when the implementation of behavior / learning takes place; and *self-reflection*, refers to the process after an effort to learn occurs. In other words, SRL can make students find the best way of learning, strengthen their abilities, apply learning strategies to improve learning outcomes, monitor performance, and evaluate their academic development. (Zumbrunn, et al. 2011). In this case, Marzuki (2014, p: 35) concludes that students with high SRL levels are assumed to have passed the three phases mentioned above and will show good learning outcomes because they have the maturity from the side of cognition, motivation and behavior in undergoing their learning.

METHOD

Research Design

This study used quasi-experimental with design treatment by level 2X2. The independent variables (instructional methods and self-regulated learning). As the

independent variables had two dimensions (CIRC and PWIM: high and low selfregulated learning) (Tuckman & Harper, 2012), Learning with CIRC, students learn together in a team consisting of 4 students where 2 students have the ability to read better than 2 other students. This is why, before the circ held, a reading test is first conducted as a basis for forming learning teams. Implementation of the circ in this study was adapted from Slavin (1995) who developed cooperative learning with 3 main principles: story-related activites, direct instruction in reading comprehension and integrated writing/language art. The implementation of pwim in this study refers to Calhoun (1999) who also taught reading and writing to the students. Through picture media, students are directed to enrich vocabulary and read it to stimulate their inductive abilities in writing. CIRC and PWIM have similarities improve students' writing skills. The difference between the two lies in how to introduce good and correct writing. CIRC learning presents texts that essentially able for students to read and understand the main ideas so that the reading test is needed first, which then learns to write various sentences up to paragraphs, while the PWIM learning displays pictures to enrich students' vocabulary and helps them to read the words inductively before they are asked individually to write sentences up to paragraphs.

Sample of Research

Researchers choose students of MTsN-1 Palangkaraya class VII semester 1 academic year 2018/2019 as a subject in this study. The total number of VII grade students in the school is 280 students divided into seven classes (40 students per class). The random selection of students as research subjects requires the researcher to choose the existing classes. Therefore, researchers choose randomly by drawing classes that are the subject of research (cluster random sampling). The researcher chooses two classes with the first class as the experimental class and the second class as the control class.

There were 80 seventh grade learners of MTsN 1 Palangkaraya, Central Borneo, Indonesia, in 2018/2019 academic year involved in this study. They then were divided into two classes randomly sampled to be the experimental group and the control group. Learners included in the experimental group learned together in a team formation. Each team consisted of 4 members and one of them was a learner with high reading ability

Instrument and Procedures

Collection of data on self-regulated learning of the learners was done by using self-regulated learning questionnaires while the data of the improvement of learners' writing skill was collected by using an essay test in which the learners were asked to write a simple descriptive text. The test was given twice; before and after the experiment was conducted. CIRC was implemented in the experimental group whereas the control one implemented PWIM. Both of these methods were used in teaching English writing. In addition, reading test was also conducted in the experimental group as the basic in composing the teams.

Data Analysis

Two-way Analysis of Variances (ANOVA) was then used to analyse the data collected. Hypotheses tested were as followed:

- 1. The writing skill of the learners taught by Cooperative Integrated Reading and Composition method (CIRC) were different from those taught by Picture-Word Inductive Model (PWIM).
- 2. Different self-regulated learning of the learners affected their writing.
- 3. The interaction of instructional methods and self-regulated learning affected learners' writing.

FINDINGS

The descriptive on learning outcomes of social studies education as in table 1

Table 3

Statistic of Descriptive Learning Outcomes								
Methods	SRL	Mean						
CIRC	Low	84.58						

Methods	SRL	Mean	Std. Deviation	N
CIRC	Low	84.58	5.037	19
	High	74.33	7.838	21
	Total	79.20	8.370	40
PWIM	Low	68.65	8.070	17
	High	70.17	7.691	23
	Total	69.53	7.789	40
Total	Low	77.06	10.387	36
	High	72.16	7.953	44
	Total	74.36	9.393	80

Table 4 Tests of between-Subject Effects by ANOVA

Source	SS	Db	MS	F _{Value}	Sig.	F_{table}
Methods	1992.870	1	1992.870	37.597	0.000*	3.962
SRL	375.294	1	375.294	7.080	0.010*	3.962
Methods * SRL	684.223	1	684.223	12.908	0.001*	3.962
Error	4028.485	76	53.006			
Corrected Total	6970.487	79				

The first hypothesis. The hypothesis tested is rejected H0: $\mu A_1 = \mu A_2$ and accept H1: $\mu A_1 > \mu A_2$ is accepted, at $\alpha = 0.05$. Based on the two-way ANOVA test in the table 4, obtained Fstat = 37.597>Ftable ($\alpha = 0.05$) = 3.967. This means that the hypothesis H0 is rejected and H1 is accepted. Means there are writing skill of the learners taught by Cooperative Integrated Reading and Composition method (CIRC) were different from those taught by Picture-Word Inductive Model (PWIM). It is shown in table 3, the average score of writing skill of the learners taught by Cooperative Integrated Reading and Composition method (79.20) and Picture-Word Inductive Model (69.53). This means that student writing skill of the learners taught by Cooperative Integrated Reading and Composition methods (CIRC) are higher than those Picture-Word Inductive Model.

The second hypothesis, the hypothesis tested is rejected H0: $\mu B_1 = \mu B_2$ and accept H1: $\mu B_1 > \mu A_2$ is accepted, at $\alpha = 0.05$. Based on the two-way ANOVA test in the table 4, obtained Fstat = 7.080>Ftable ($\alpha = 0.05$) = 3.967. This means that the hypothesis H0 is rejected and H1 is accepted. Means there are the Different self-regulated learning of the learners affected their writing. It is shown in table 3, the average score of self-regulated learning Low (77.06) and self-regulated learning high (72.16). This means that student writing skill of the self-regulated learning Low are higher than those self-regulated learning high.

The second hypothesis, the hypothesis tested: H0: Interaction A X B = 0. H1: Interaction A X B # 0. The results of the two-way ANOVA calculation as in table 4 obtained Fstat= 12.098>Ftable ($\alpha=0.05$) = 3.962. This means that H0 is rejected and H1 is accepted. It means that there is an influence of the interaction between the interaction of instructional methods and self-regulated learning affected learners' writing is as in figure 1

Furthermore, an expected change occurred along with the implementation on the instructional methods. As it can be seen, the following figure shows the learners with low self-regulated learning reached higher mean scores in writing than those with high self-regulated learning. It represents the appropriateness of their low self-regulated learning with the methods in improving their writing. Hence, it can be concluded that writing skill of the learners with low self-regulated learning can be improved as long as the instructional methods implemented, especially CIRC, offer many activities and techniques which support their learning.

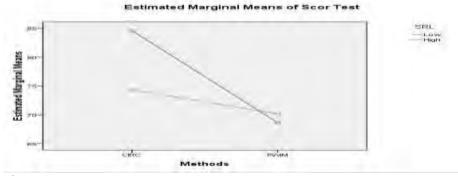


Figure 1 Interaction of Instruction Methods and Self-Regulated Learning

DISCUSSION

According to Jati, Mulyani and Hastuti (2015) CIRC is a teaching method that combines reading and writing activities in a learning. Variance analysis (ANOVA) results proved the relation between students' skills in writing texts with CIRC and PWIM learning

methods. This finding proved the application of the CIRC method is more able to maximize students' skills in writing English texts compared to the use of the PWIM method. These findings are in line with the research of Perangin (2012) which states that learning with the CIRC method has a positive influence on the results of writing a summary of students' nonfiction books.

Ramadhanti (2017); Luo (2019); Wahyuningsih & Citraningrum (2019); Darmawan et al. (2019) also states that in order to improve student skills in writing, CIRC is more suitable applied in learning. In this regard, writing skills or writing essays in English are included as difficult skills. It is said difficult because students must mastering the skills of writing, such as vocabulary, grammar, spelling, and so on (Yulia, 2017). Empirical studies and previous research support prove that CIRC can activate students in undergoing their every learning process and at the same time encourage them to improve their learning outcomes, especially English text writing skills.

Along with the study conducted by Trivino (2016), the result of hypothesis testing 1 proved that cooperative learning improves learners' writing skill. This study represents specifically that CIRC implemented in the class support learners to improve their writing skill. The integration between reading and writing is the core in developing activities in CIRC. Based on the principle of CIRC as it was discussed by Slavin (1995), each reading-writing activity seeks for learners' high performances. The performances activate them to raise their skill in writing.

The establishing of the teams perhaps affects their performance during the activities. As it was stated before, the formation of a team must consist of at least one or two learners with high reading ability to facilitate the other members in understanding the tasks. In fact, some of the teams do not work well because they are unaccustomed each other. The problems of ignorance, blaming and envy sometimes occur in the teams. As the consequence, their attention and focus in the learning process are hampered. Mahmoud (2014) suggested that each team is supposed to be allowed to take part in determining team composition. It probably could engage them to be more serious during the activities and ensure them to work more effectively.

The gap among members basically is the reflection of their self-regulated learning, which means that they have their own way in mastering the instruction but it is quite different with the others. The contribution of self-regulated learning itself was proved to give positive effect toward academic achievement (Panadero, et.al, 2015; Alotaibi & Jabak, 2017). Therefore, those confronting the team problems should be guided to manage their self-regulated learning for useful things to do to get their achievement.

Based on the result of hypotheses 2, self-regulated learning affects the gained of writing mean scores. It is predicted that learners with high self-regulated learning achieve higher academic score (Göy, 2017). Göy (2017) stated that learners who are never trained in self-regulated learning are motivated to ask guidance with the others in accomplishing their writing task and to always learn to learn which potentially develops their writing skill. In contrast, learners with high self-regulated learning are inclined to just keep organize and evaluate their regulation rather than realize how important writing is.

Self-regulated learning inside the learners interacts with the instructional methods to predict their academic achievement (Johny et al., 2012). However, the unexpected result found in this study is similar enough with the study of Göy (2017). Contrary to the common studies reporting that learners with high self-regulated learning absolutely achieve higher mean scores, this study shows that learners with low self-regulated learning have a same chance to improve their writing skill.

These findings are supported by the research of Lestari, Widada and Zamzali (2017) that the students' metacognitivity is influenced by the level of SRL. Nevertheless, the results of the study differed stated by Reni et al. (2018) that different levels of SRL do not affect students' skills in writing texts. This, according to them, the text of the report of observations made in groups makes the assessment of learning outcomes the same either for students with high and low SRL.

Based on the differences in findings on the influence of SRL in student learning above, this study underlines that the selection of appropriate learning methods for managing SRL, is considered to be able to contribute better in improving students' writing skills. In connection with this statement, it can be said that CIRC is a learning method that is able to interact with SRL optimally where these two variables support one another to improve student learning outcomes effectively.

The result of hypotheses testing 3 shows this thing in which the learners with low self-regulated learning gain higher mean scores than those with high self-regulated learning (77.06>72.16). It actually represents the interaction between cooperative learning and self-regulated learning in writing (Güven¢, 2010; Yumi & Erina, 2015). Here, learners start to learn better as long as the implementation of cooperative learning in their learning. In other words, self-regulated learning interacted with CIRC could increase learners' writing skill.

CONCLUSION

Findings of the study proved that learners' writing skill was different since they were taught by different instructional methods; half of them learned through Cooperative Integrated Reading and Composition (CIRC) whereas another half learned through Picture-Word Inductive Model (PWIM). The vocabulary enrichment in the CIRC method proved to be more effective in improving the writing skills of VII grade students compared to the inductive analysis of images in the PWIM method.

Different self-regulated learning (high vs. low) had by the learners also influenced their writing. SRL that appears during the learning process of students can lead them to realize and evaluate what should be done in order to improve their learning outcomes. This study found that students with low SRL levels in fact have better writing skills than students with high SRL. In other words, even students with low SRL levels still have the potential to be able to provide meaningful changes in achieving learning outcomes, especially writing skills.

Furthermore, the interaction between the instructional methods and self-regulated learning contributed in affecting learners' writing. This interprets that the selection of

learning methods and the optimization of student characteristics conducted by the learners greatly contribute to helping them manage their learning process. It was found that the highest scores of students in writing found in groups of students who were taught through the CIRC method with a low level of SRL while the lowest value of students' writing skills was in the group of students who were taught through the PWIM method with a low level of SRL. Nevertheless, the students' writing skills who taught through the CIRC and PWIM methods at a high SRL level have almost the same value.

This study recommends the importance of choosing learning methods that can optimize students' natural characteristics and not focus solely on achieving academic achievement is very important to be conducted. CIRC is able to help students especially those with low SRL in improving their writing skills that integrate with reading skills. Learning activities conducted by students and their teams have succeeded in creating conducive cooperative learning so that their learning outcomes can be improved.

REFERENCES

Ahangari, S., & Samadian, Z. (2014). The effect of cooperative learning activities on writing skills of Iranian EFL learners. *Linguistics and literature studies*, *2*(4), 121-130.

Alotaibi, K., Tohmaz, R., & Jabak, O. (2017). The relationship between self-regulated learning and academic achievement for a sample of community college students at King Saud University. *Education Journal*, *6*(1), 28-37.

Altun, S. (2017). The effect of cooperative learning on students' achievement and views on the science and technology course. *International Electronic Journal of Elementary Education*, 7(3), 451-468.

Apugliese, A., & Lewis, S. E. (2017). Impact of instructional decisions on the effectiveness of cooperative learning in chemistry through meta-analysis. *Chemistry Education Research and Practice*, 18(1), 271-278.

Asakawa, M., Kanamaru, A., Plaza, T., & Shiramizu, C. (2016). Useful expressions for implementing cooperative learning in English. *TESL-EJ*, 19(4), n4.

Astuti, P., & Lammers, J. C. (2017). Individual accountability in cooperative learning: More opportunities to produce spoken English. *Indonesian Journal of Applied Linguistics*, 7(1), 215-228.

Buchs, C., Filippou, D., Pulfrey, C., & Volpé, Y. (2017). Challenges for cooperative learning implementation: reports from elementary school teachers. *Journal of education for teaching*, 43(3), 296-306.

Caicedo Triviño, P. A. (2016). Using cooperative learning to foster the development of adolescents' English writing skills. *Profile Issues in Teachers Professional Development*, 18(1), 21-38.

Calhoun, E. F. (1999). *Teaching beginning reading and writing with the picture word inductive model*. Alexandria: Association for Supervision and Curriculum Development.

- Carey, M. D., & Dunn, P. K. (2018). Facilitating language-focused cooperative learning in introductory statistics classrooms: A case study. *Statistics Education Research Journal*, 17(2), 30-50.
- Chen, H. Y., & Goswami, J. S. (2011). Structuring cooperative learning in teaching English pronunciation. *English language teaching*, 4(3), 26-32.
- Chin, C. K. (2018). Conceptualization of the Chinese language teaching paradigm. In K. C. Soh (Ed.), *Teaching Chinese language in Singapore* (pp. 25-36). Singapore: Springer.
- Cho, H., & Brutt-Griffler, J. (2015). Integrated reading and writing: A case of Korean English language learners. *Reading in a Foreign Language*, 27(2), 242.
- Darmawan, E., Alamsyah, M. R. N., Permadani, K. G., Pamungkas, S. J., Prajoko, S., Sukmawati, I., ... & Zamzami, M. R. A. (2019). Integration of Simas Eric with google classroom: Enhancing biology students motivation and scientific writing. *Biosfer: Jurnal Pendidikan Biologi*, *12*(1), 1-12.
- Degeng, I. N. S. (2013). Ilmu pembelajaran: klasifikasi variabel untuk pengembangan teori dan penelitian. *Bandung: Kalam Hidup*.
- Drakeford, W. (2012). The effects of cooperative learning on the classroom participation of students placed at risk for societal failure. *Online Submission*, 2(4), 239-246.
- Durukan, E. (2011). Effects of cooperative integrated reading and composition (CIRC) technique on reading-writing skills. *Educational Research and Reviews*, 6(1), 102-109.
- Eymur, G., & Geban, Ö. (2017). The collaboration of cooperative learning and conceptual change: enhancing the students' understanding of chemical bonding concepts. *International journal of science and mathematics education*, 15(5), 853-871.
- Feng, C. C. (2011). The cooperative classroom: Scaffolding EFL elementary learners' English literacies through the picture word inductive model--the journey of three teachers in Taiwan (Unpublished doctoral dissertation). University of Toronto.
- Fujiwara, Y., & Sato, E. (2015). An analysis of vocabulary in collaborative writing performance of Japanese learners of English at university. *Journal of Academic Society for Quality of Life*, 1(3), 16-22.
- Fujiwara, Y., & Sato, E. (2015). Effects of cooperative learning on writing activity of English for special purposes in Japanese university students. *Journal of Academic Society for Quality of Life*, 1(1), 32-39.
- Gao, Y. (2018). Exploring the relationship between the ESL learners' preferred individualized classroom environment and language learning strategies (Unpublished doctoral dissertation). Auburn University.
- Ghaith, G. M. (2018). Teacher perceptions of the challenges of implementing concrete and conceptual cooperative learning. *Issues in Educational Research*, 28(2), 385.

- Ghufron, M. A., & Ermawati, S. (2018). The strengths and weaknesses of cooperative learning and problem-based learning in EFL writing class: Teachers' and students' perspectives. *International Journal of Instruction*, 11(4), 657-672.
- Gillies, R. M. (2014). Developments in cooperative learning: Review of research. *Annals of Psychology*, *30*(3), 792-801.
- Gillies, R. M., & Boyle, M. (2010). Teachers' reflections on cooperative learning: Issues of implementation. *Teaching and teacher Education*, 26(4), 933-940.
- Göy, N. (2017). An action research on the development of self-regulated writing strategies of Turkish EFL students. *Eurasian Journal of Applied Linguistics*, *3*(2), 191-204.
- Graham, S., & Harris, K. R. (2005). Improving the writing performance of young struggling writers: Theoretical and programmatic research from the center on accelerating student learning. *The journal of special education*, 39(1), 19-33.
- Gull, F. & Shehzad, S. (2015). Effects of cooperative learning on students' academic achievement. *Journal of Education and Learning*, *9*(3), 246-255.
- Gup M., & Ahuja, J. (2015). Cooperative integrated reading composition (Circ): Improving achievement in English writing composition among seventh graders. *Issues and Ideas in Education*, 3(1), 49-53.
- Guvenc, H. (2010). The effects of cooperative learning and learning journals on teacher candidates' self-regulated learning. *Educational Sciences: Theory and Practice*, 10(3), 1477-1487.
- Herrmann, K. J. (2013). The impact of cooperative learning on student engagement: Results from an intervention. *Active learning in higher education*, 14(3), 175-187.
- Ipuh, M. T. N. (2015). The effects of using CIRC model on the English learning skills among junior high school students. *Journal of Education and Learning (EduLearn)*, 9(2), 117-124.
- Jati, Y. B., Mulyani, S., & Hastuti, B. (2015). Pembelajaran Model Cooperative Integrated Reading and Composition (CIRC) Menggunakan Peta Konsep dan Peta Pikiran Pada Materi Pokok Sistem Koloid Kelas XI Semester Genap SMA N 1 Sragen Tahun Pelajaran 2012/2013. *Jurnal Pendidikan Kimia*, 4(1), 104-112.
- Jenkins, J. R., Antil, L. R., Wayne, S. K., & Vadasy, P. F. (2003). How cooperative learning works for special education and remedial students. *Exceptional children*, 69(3), 279-292.
- Jiang, X., & Perkins, K. (2013). A conceptual paper on the application of the picture word inductive model using Bruner's constructivist view of learning and the cognitive load theory. *Interdisciplinary journal of teaching and learning*, *3*(1), 8-17.
- Johnson, D. W., & Johnson, R. T. (2014). Cooperative learning in 21st century. *Annals of Psychology*, 30(3), 841-851.

Johnson, D. W., & Johnson, R. T. (2017). The use of cooperative procedures in teacher education and professional development. *Journal of education for teaching*, 43(3), 284-295.

Johny, L., Lukose, L., & Magno, C. (2012). The assessment of academic self-regulation and learning strategies: can they predict school ability. *Educational Measurement and Evaluation*, *3*, 77-89.

Joyce. B, Weil, M. & Calhoun, E. (2009). Models of teaching. Boston: Allyn Bacon.

Knight, S., Shum, S. B., Ryan, P., Sándor, Á., & Wang, X. (2018). Designing academic writing analytics for civil law student self-assessment. *International Journal of Artificial Intelligence in Education*, 28(1), 1-28.

Kukulska-Hulme, A., & Viberg, O. (2018). Mobile collaborative language learning: State of the art. *British Journal of Educational Technology*, 49(2), 207-218.

Kutnick, P., Fung, D. C., Mok, I. A., Leung, F. K., Li, J. C., Lee, B. P. Y., & Lai, V. K. (2017). Implementing effective group work for mathematical achievement in primary school classrooms in Hong Kong. *International Journal of Science and Mathematics Education*, *15*(5), 957-978.

Lestari, N. A., Widada, W., & Zamzaili, Z. (2017). Pengaruh Strategi Pembelajaran Self-Regulated Learning in Mathematics Berbasis Pemecahan Masalah terhadap Kemampuan Metakognitif Siswa di SMA Negeri 2 Bengkulu. *Jurnal Pendidikan Matematika Raflesia*, 2(2).

Luo, N. (2019, April). Research on the reading and writing integrated teaching model of college English based on critical thinking. In 3rd International Conference on Culture, Education and Economic Development of Modern Society (ICCESE 2019). Atlantis Press.

Machemer, P. L., & Crawford, P. (2007). Student perceptions of active learning in a large cross-disciplinary classroom. *Active learning in higher education*, 8(1), 9-30.

Magno, C. (2009). Self-regulation and approaches to learning in English composition writing. *TESOL journal*, *1*, 1-16.

Mahmoud, M. M. A. (2014). The effectiveness of using the cooperative language learning approach to enhance EFL writing skills among Saudi university students. *Journal of Language Teaching and Research*, 5(3), 616.

Miquel, E., & Duran, D. (2017). Peer learning network: Implementing and sustaining cooperative learning by teacher collaboration. *Journal of education for teaching*, 43(3), 349-360.

Panadero, E., Kirschner, P. A., Järvelä, S., Malmberg, J., & Järvenoja, H. (2015). How individual self-regulation affects group regulation and performance: A shared regulation intervention. *Small Group Research*, 46(4), 431-454.

- Perangin-Angin, M. E. B. (2012). Pengaruh Model Pembelajaran Cooperative Integrated Reading and Composition Dalam Meningkatkan Kemampuan Menulis Rangkuman Buku Nonfiksi Siswa Kelas XI Sman 1 Tigapanah Tahun Pembelajaran 2012/2013. *Basastra*, 1(2).
- Pionera, M., Degeng, I. N. S., Widiati, U., & Setyosari, P. (2019). Implementation of learning methods and levels of self regulated learning in writing. *International Journal of Multicultural and Multireligious Understanding*, 6(2), 481-489.
- Popa, C. A., Bochis, L. N., Laurian-Fitzgerald, S., & Fitzgerald, C. J. (2018). Cooperative learning and student mentors in a hybrid teacher preparation program. In J. Fitzgerald, S. Laurian-Fitzgerald, & C. Popa (Eds.), *Handbook of research on student-centered strategies in online adult learning environments* (pp. 386-405). IGI Global.
- Raja, M. S. H., Qureshi, A. S. A. R., & Albesher, K. B. (2017). Application of cooperative learning strategies (CLS) for students' focused teaching (SFT) in EFL class: An experimental study in the summer remedial course for adult learners. *Journal of Language Teaching and Research*, 8(2), 237-252.
- Reni, Yevina M, Kuswandi, D, Sihkabuden. (2017). Pengaruh Strategi Pembelajaran dan Self-Regulated Learning terhadap Hasil Belajar. Jurnal Inovasi dan Teknologi Pembelajaran, *4*(1) 47-55.
- Salter, P. (2012). Developing self-regulated learners in secondary schools. Joint AARE APERA International Conference. Sydney: *Australian Association for Research in Education (NJ1)*.
- Schunk, D. H., & Zimmerman, B. J. (2007). Influencing children's self-efficacy and self-regulation of reading and writing through modeling. *Reading & writing quarterly*, 23(1), 7-25.
- Schunk, D. H., & Zimmerman, B. J. (1998). Self-regulated learning: From teaching to self-reflective practice. New York, NY: Guilford Press.
- Shafiee, S., & Khavaran, S. R. (2016). Effects of cooperative learning on vocabulary achievement of reflective/impulsive Iranian EFL learners. *International Journal of Foreign Language Teaching and Research*, 5(17), 11-24.
- Slavin, R. E. (1991). Synthesis of research of cooperative learning. *Educational leadership*, 48(5), 71-82.
- Slavin, R. E. (1996). Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary educational psychology*, 21(1), 43-69.
- Slavin, R. E. 1995. *Cooperative learning: Theory, research and practice*. Baltimore: The Johns Hopkins University, Center for Research on Effective Schooling for Disadvantaged Students.
- Slavin, R. E., Lake, C., Chambers, B., Cheung, A., & Davis, S. (2010). *Effective reading programs for the elementary grades: A best-evidence synthesis*. Baltimore: Best

Evidence Encyclopedia (BEE), The Johns Hopkins University School of Education's Center for Data-Driven Reform in Education (CDDRE).

Stevens, R. J., & Slavin, R. E. (1995). The cooperative elementary school: Effects on students' achievement, attitudes, and social relations. *American Educational Research Journal*, 32(2), 321-351.

Supanc, M., Völlinger, V. A., & Brunstein, J. C. (2017). High-structure versus low-structure cooperative learning in introductory psychology classes for student teachers: Effects on conceptual knowledge, self-perceived competence, and subjective task values. *Learning and Instruction*, *50*, 75-84.

Swartzendruber, K. (2007). The picture word inductive model and vocabulary acquisition. *Proceedings of the 3rd Annual GRASP Symposium*, Wichita State University.

Tran, V. D. (2014). The effects of cooperative learning on the academic achievement and knowledge retention. *International Journal of Higher Education*, *3*(2), 131-140.

Tuckman, B. W., & Harper, B. E. (2012). *Conducting educational research*. Rowman & Littlefield Publishers.

Wahyuningsih, A., & Citraningrum, M. (2019). The effectiveness of the cooperative integrated reading and composition (CIRC) and preview question read reflect recite review (PQ4R) on reading comprehension skill. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, *I*(1), 26-36.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments, and future prospects. *American educational research journal*, 45(1), 166-183.

Zumbrunn, S., Tadlock, J., & Roberts. E. D. (2011). *Encouraging self-regulated learning in the classroom: A review of the literature*. Metropolitan Educational Research Consortium, Virginia Commonwealth University.

Zumbrunn, S., Tadlock, J., & Roberts, E. D. (2011). Encouraging self-regulated learning in the classroom: A review of the literature. *Metropolitan Educational Research Consortium (MERC)*, 1-28.