The Effect of Reflective Journaling on Writing Skills of English As a Foreign Language Students: A Quasi-Experimental Study

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Abstract
Reflective journaling defined as a development-oriented assessment in which contributes students to reach potential capabilities through analyzing their learning process. The students engaged in reflection of their learning process through reflective journal writing. The present study focused to investigate the effect of reflective journaling on writing skills of English as A Foreign Language (EFL) students. Two classes of twelfth grade students in a state Islamic school were involved in the study. The participants were assigned to two groups (experimental and control) and involved in writing test. Experimental group was provided by reflective journal template adapted from Gibb’s Reflective Cycle. The analysis was significant with p value was 0.024 in which less than critical value 0.05. The results indicated that students who used reflective journal significantly different compared to those do not use it.

Keywords: Reflective Journal, Reflection, EFL Writing Skills

INTRODUCTION
Writing has been a fundamental aim for different purposes in life, such as communication, self-expression, and learning (Salahi & Farahian, 2021). For the educational practitioners, students are expected to be able to write a kind of academic writing (Jannah et al., 2020). However, English as a Foreign Language (EFL) students face some challenges and difficulties in writing (Moses & Mohamad, 2019). Therefore, teachers should give extra attention to assess students’ difficulties and challenges in English writing.

Culturally, Asian students are less active in teaching and learning process, which means that they are not trained to be critical and reflective thinkers. It is because the curriculum and syllabus focused on teacher-oriented learning (Farahian et al., 2020) and overlooked on vocabulary and grammar training (Salahi & Farahian, 2021). Lee (2017) noted that writing assessment was dominated by summative approach in traditional classroom of L2 school context, which the focus refers to
assessment of learning where writing scores are use for feedback. Moreover, due to the increase in the number of students in the classroom, teachers suffered from burnout in assessing their students (Graham, 2019). Thus, it is necessary to shift the focus of the assessment from the final scores to the learning development process.

Self-assessment also close related to the dynamic assessment which many researchers conducted studies about this alternative assessment in this recent years. In educational system, ongoing and dynamic classroom assessment have been highly emphasized (Farahian & Avarzamani, 2018). Dynamic assessment defined as a development-oriented process in which contributes students to overcome their learning issues and reach potential capabilities through analyzing their learning (Ebadi & Rahimi, 2019). Dynamic assessment is type of assessment that focusing on the process of improvement rather than students’ present ability or learning product (Kazemi et al., 2020). Hence, Qasem (2020) states that self-assessment task-based teaching is very dynamic process which can engage students to be more active in the classroom and empowered their motivation to grow better. It seems very important to growing awareness that need to prepare students with knowledge and capability to take decisions (Bezanilla et al., 2019). Moreover, self-assessment also provides transferable critical feedback that valuable for further improvement in learning (Fahimi & Rahimi, 2015; Rezai et al., 2022).

The practice of reflection is dynamic and changeable for educational improvement (Bruno & Dell’Aversana, 2017). The forms of reflective thinking are including critical thinking, problem solving and decision making (Butterworth & Thwaites, 2013). Critical thinking refers to the ability to critically analyzing a situation and searching for feasible solution, while problem solving defined as a method to obtaining a solution for certain issues, which lead to decision making (Richards, 2015) (Ruiz-Lopez et al., 2015). On the other hand, Stephen D. Brookfield argued in his book that the students’ perspective has been the most crucial pedagogic knowledge for teachers (Brookfield, 2017). Hence, critical reflection also have a key role for teachers in realizing educational objectives, seeking solution to problems, and reflect their practices (Korkko et al., 2016) (Yıldırım, 2017).

Writing can facilitate reflection and metacognitive process such as critical thinking, problem solving, and decision making (Klein & Boscolo, 2016). The concept of self-assessment, reflective thinking, and the aim of writing skills can represent in reflective journal. Reflective journal can be used as an assessment tool that can enhance students’ reflection and more aware of their learning processes (Bruno & Dell’Aversana, 2016). Additionally, reflective journal provides environment to help students develop their writing skills (Ahmed, 2020; Dumlao & Pinatacan, 2019). This occurs due to the role of metacognition to create the thinking about thinking environment. Hence, metacognitive awareness have an important role for students writing performance, which can encourage students’ self-regulate in writing process (Farahian & Avarzamani, 2018; Feng Teng, 2019; Negretti, 2012).

However, the studies about the effect of reflective journaling on EFL students’ writing skills are limited. Besides the socio-cultural factors of Asian students that considered as less active students
engage in critical thinking and high-level of thinking, there are some debates over the use of reflective journaling. There are some challenges in using reflective journaling (Ahmed, 2020), lack of valid and reliable instrument designed specifically for students’ reflective writing (Salahi & Farahian, 2021) and the role of proper teachers’ guidance in practicing self-assessment and reflective thinking (Hung, 2019). The study of reflective journal on high school students also limited on the study that emphasize critical and reflective thinking on undergraduate students and professional development. Therefore, the current study filled the gap from the previous literature and aimed to conduct a study to measure the effect of reflective journaling on EFL students’ writing skills, especially on high school students. Regarding the reviewed literature, the following research questions were formulated:

1. Do the senior high school students who use reflective journal achieve better writing skills than the senior high school students who do not use reflective journal?

2. Do the senior high school students who use reflective journal gain higher writing scores than the senior high school students who do not use reflective journal?

**METHOD**

The current study followed a quasi-experimental design. Two classes were selected from a school through a clustering analysis method, which one group assigned as experimental and the other as a control. They examined to determine the potential effect of the independent variable. The current study has two variables; independent variable is the reflective journal for experimental group and reflection sheet for control group, whereas the dependent variable is the students’ writing scores. Therefore, this study situated with the examination of the students who are use reflective journals writing and who are use reflection sheet to understand its effect on the students’ writing skills based on their writing outcomes.

**Participants**

A state Islamic school in Palangka Raya was chosen as the place of the study. The researchers selected two classes of twelfth grade students and assigned them as experimental and control groups. The participants in both classes were involved in pre-test in the first week, the treatment phase in three weeks, and post-test in the last week. The participants in this research can be involved in all semester, both even or odd semester.

In this study, 65 EFL students both males and females of a state Islamic school in Palangka Raya were involved. The minimal sample size has been determined using GPower software version 3.1.9.4. The sample size for 60 have effect size \( d = 0.65 \), alpha = 0.05, at power 0.80 and ratio 1:1. The participants were selected from a school through clustering analysis method, which consist of two classes in the same year of study. The participants were assigned as the experimental group (reflective journal) and control group (reflection sheet).
Data Collection

In order to compare the changes and differences of students’ writing ability between both groups, the researchers conducted pre-test before the treatment and post-test after the treatment. To collect all the data both in experimental and control group, the researchers followed the procedure that has been arranged. First, both experimental and control groups were assigned to write short essay based on the chosen topics for pre-test. The students in experimental group assigned to write their weekly learning reflection based on the reflective journal template, whereas the control group assigned to write their weekly learning reflection based on the reflection sheet template. Afterwards, all of the participants assigned to write short essay again based on the chosen topics for post-test. The results of the writing tests (pre-test and post-test) of both experimental and control group collected by researchers. Then, the researchers measured the data to know whether by using reflective journal have an effect for students’ writing skills.

Research Instruments

Writing Tests

The participants of both groups were asked to share their opinion on the given topics in order to encourage students to argue for and against a particular topic (Farahian et al., 2020). For the written test, the researchers used pre-test and post-test. The pre-test used to know the students’ writing ability before the treatment. Whereas, post-test used to know students’ writing ability after the treatment was given. Afterwards, the researchers measured both post-test and pre-test to know whether the reflective journal have a significant effect towards the students’ writing ability.

For the essay test, the researchers led the students not to write a simple descriptive story, but encourage students to write kind of topics that can encourage them to reflect on their personal experiences. For example, the chosen topics for pre-test were “the most embarrassing moment I experienced in the school”, “the most memorable/delightful moment in the school” and “things that I
do/do not like in the school”. Whereas, for post-test were “why I do/do not like learning English” both for experimental and control group.

**Template for Students’ Reflective Journal**

As the guideline to achieve students’ reflective writing, the researchers used the template that includes probing questions to help students reflect on their learning experiences and challenges. There are five phases of reflection that guided the Gibb’s reflective cycle, they are description, feelings, evaluation, conclusion and action (see figure 2). Therefore, the design of this template based on Gibb’s reflective cycle (Ahmed, 2020) (see appendix).

![Figure 2. Gibb's reflective cycle](image)

**Reflection Sheet**

In order to make the comparison between two groups, the researchers assigned the control group to write their reflection on reflection sheet template. This attempt was conducted due to the precaution against possible bias in this research. Therefore, the researchers compared the reflective journal with the other equivalent instrument and have same purpose to trigger students to think reflectively, i.e. Reflection Sheet. The researchers adapted the reflections sheet template from Farahian & Avarzamani (2018).

**Ethical Issues**

Ethical clearance from the participants have been searched before the researchers commencing the study. The researchers used ethical guidelines from British Educational Research Association (BERA) (2018). For the first, the researchers explained the aims of the study to the participants. Second, the participants read and sign consent form voluntarily. Third, the researchers ensured that issues related to the participants kept private, anonymous and confidential. Fourth, the participants have been given the right to withdraw from the study for any reason. Finally, the participants’ identity protected by not using students’ real name.

**Data Analysis**

In order to measure the effect of reflective journaling for experiment class and reflection sheet for control class, the researchers conducted measurement using SPSS Statistics 26 application. The scoring rubric, adapted from Kim (2019), has been used to determine the writing scores in the pre-test
and post-test (see appendix). The researchers and an English teacher involved to assess students’ writing in the pre-test and post-test.

The mean scores of both groups determined by using descriptive analysis. Afterwards, the researchers analyzed the normality of the data using normality test. The data that normally distributed analyzed using independent sample t-test and Mann-Whitney test as another alternative. The pre-test scores were measured to ensure that both group have similar writing competency before the treatment. Therefore, the post-test scores were measured to determine whether there is a significant different between the students who use reflective journal and reflection sheet. The t-test results of post-test showed whether by using Reflective Journaling have an effect towards students’ writing skills.

### RESULTS AND DISCUSSION

The researchers received thirty-four reflective journals from experimental group. There were 17 female and 17 male students. In control group, the researchers received thirty-one reflection sheets. There were 18 female and 13 male students. Table 1 illustrated the students’ writing scores before the treatment.

<table>
<thead>
<tr>
<th>Class</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Experiment</td>
<td>72.26</td>
<td>34</td>
<td>3.816</td>
<td>.654</td>
</tr>
<tr>
<td>Pre-test Control</td>
<td>70.97</td>
<td>31</td>
<td>3.564</td>
<td>.640</td>
</tr>
<tr>
<td>Total</td>
<td>71.65</td>
<td>65</td>
<td>3.727</td>
<td>.462</td>
</tr>
</tbody>
</table>

Based on Table 1, the writing proficiency of both groups was almost equal to each other. The similarity of writing scores before the treatment between reflective journaling and reflection sheetgroups based can be confirmed on the Mann-Whitney test due to the normality test was not significant. The results of the normality test can be seen in Table 2.

<table>
<thead>
<tr>
<th>Class</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test Experiment</td>
<td>.130</td>
<td>.936</td>
</tr>
<tr>
<td>Pre-test Control</td>
<td>.249</td>
<td>.873</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

Regarding the normality test results above can be seen the p value of pre-test experiment and control group. The experiment group have the p value 0.158, which is greater than the critical value of 0.05. Whereas the control group have the p value 0.000, which is less than the critical value of 0.05. From the results, it can be concluded that one of the groups have non-significant results. Therefore, the similarity of writing scores between groups can be confirmed using Mann-Whitney test in Table 3.

<table>
<thead>
<tr>
<th>Total N</th>
<th>65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>427.500</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>923.500</td>
</tr>
<tr>
<td>Test Statistic</td>
<td>427.500</td>
</tr>
<tr>
<td>Standard Error</td>
<td>75.528</td>
</tr>
</tbody>
</table>
From the Table 3, the p value of 0.188 is greater than critical value 0.05. This results acknowledged that writing scores of experimental and control groups were not significant different in the beginning of the study.

Afterwards, the mean scores of reflective journal and reflection sheet groups after the treatment can be seen in Table 4. The mean score of reflective journal group exceeds reflection sheet groups in the post-test. However, it is necessary to conduct t-test to confirm the significant difference between groups.

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test Experiment</td>
<td>34</td>
<td>72.68</td>
<td>3.715</td>
<td>.637</td>
</tr>
<tr>
<td>Post-test Control</td>
<td>31</td>
<td>70.55</td>
<td>3.335</td>
<td>.599</td>
</tr>
</tbody>
</table>

Before conducting the t-test for post-test writing scores, it is necessary to follow the normality and homogeneity test. The normality of the data can be seen in Table 5.

<table>
<thead>
<tr>
<th>Class</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic df Sig.</td>
<td>Statistic Df Sig.</td>
</tr>
<tr>
<td>Post-test Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test Experiment</td>
<td>.169</td>
<td>34</td>
</tr>
<tr>
<td>Post-test Control</td>
<td>.243</td>
<td>31</td>
</tr>
</tbody>
</table>

From the table above, the p value of both groups are less than the critical value of 0.05. It means that the normality of the data was significant. Furthermore, it is necessary to examine the homogeneity of the data before the t-test. The results of homogeneity test can be seen in Table 6.

| Class          | Levene Statistic df df2 Sig. |
|----------------|-------------------------------|-----------------|
| Post-test Score|                               |                 |
| Based on Mean  | 1.431                         | 1               | 63 | .236 |
| Based on Median| 1.362                         | 1               | 63 | .248 |
| Based on Median and with adjusted df | 1.362 | 1 | 62.932 | .248 |
| Based on trimmed mean | 1.767 | 1 | 63 | .189 |

Based on the table above, the significant value of mean (p = 0.236) and median (p = 0.248) are greater than 0.05. This results indicated that the variances was not significantly different between groups. Therefore, the significant difference of writing scores between groups in the post-test can be confirmed in Mann-Whitney test (Table 7).

<table>
<thead>
<tr>
<th>Total N</th>
<th>65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>357.000</td>
</tr>
</tbody>
</table>
Regarding to Table 7, the p value of 0.024 is less than the critical p value 0.05, which means there is a significant difference of writing scores between groups in the post-test. It can be concluded that reflective journal group gain higher writing scores than reflection sheet group in the post-test (Table 4) and there is significant difference between reflective journal and reflection sheet groups after the treatment. The significant difference can be confirmed through Mann-Whitney test in Table 7.

**Discussion**

Reflective thinking means consciously thinking backwards to reflect on what happen or done. There are various activities that can engage learners in reflection, such as writing, speaking, listening, drawing, or acting (Or, 2018). One of these is writing that can be practiced in reflective journaling. Related to the previous studies revealed the strong relationship between metacognitive awareness and the quality of their writing performance (Feng Teng, 2019). Metacognitive awareness indicated as thinking about thinking, which students should consciously reflect on their learning experiences, progress, and performance (Farahian & Avarzamani, 2018). The attempts of monitoring and evaluating performance and experience tied students’ metacognitive awareness (Negretti, 2012). In reflective journaling, the students’ can practice their writing skills and consciously evaluating their performance and learning progress, which indirectly enhance their metacognitive awareness.

Reflective journaling provides students probing questions that can help them to reflect on their learning experiences, progress, and challenges. The results of present study revealed the effect of reflective journaling on students’ writing skills. This is understandable since the reflective journaling leads students’ to reflect on their performance and consciously write their plan or decision to enhance their English learning progress. The improvement of students’ writing skills is reasonable as reflective journaling provide students the opportunity to develop their thinking and writing skills for their future practice (Ahmed, 2020; Ono & Ichii, 2019).

Moreover, reflective journaling have a potential to develop students’ higher-order critical thinking and evaluative skills in a long-term implementation (Tahmasbi et al., 2022). The ability to critically analyzing a situation and searching for feasible solution, which lead to decision making as the attempts to solve the problem. This is the form of reflective thinking, which including critical thinking, problem solving and decision making (Butterworth & Thwaites, 2013; Richards, 2015). Additionally, reflective thinking involves students to analyze the complex situation, doubt, and self-correction process supporting the fact that students are criticize the current situation, which these
activities considered as a higher-level of thinking (Ruiz-Lopez et al., 2015).

However, there are several obstacles that students experienced in reflective practice. Davies (2012) mentioned the common limitations of reflective practice, such as do not understand the reflective process that leads to the feeling unsure which experience/problems to reflect on. Hence, the researchers used reflective journaling template developed by Ahmed (2020) to guide students to reflection practice. This reflective journaling template adapted from Gibb’s reflective cycle. This template provided by probing questions which leads to the five phases, i.e. description, feelings, evaluation, conclusion, and action. These five phases are outlined in the form of probing questions in order to practice students’ reflective thinking (see appendix). The writer can practice both writing and thinking through the reflective writing based on Gibb’s reflective cycle (Hashim et al., 2023).

In contrast, Ahmed (2020) showed the students’ challenges using reflective journaling are inability to reflect elaborately, a fixed template of reflection, a routine task, and a time-consuming task. Moreover, the other studies also mentioned from the participants’ view that reflective journaling is time-consuming and requires a high standards of writing skills (Bruno & Dell’Aversana, 2017; Ono & Ichii, 2019). Related to current study, the participants have their own majority and English as a non-core course, yet they should join the course. This is one of the reason why several students were not interested in English, especially in writing. However, the students still allowed to write their perception and English learning progress in reflective journaling based on their experiences.

Regarding to the second research question, the findings of current study showed a significant difference between students who use reflective journaling and reflection sheet. The results showed reflective journaling group gain higher writing scores after the treatment. This students’ writing improvement supported the previous studies of how reflective journaling contributed to improve students’ self-reflection practice (Bruno & Dell’Aversana, 2016, 2017), critical thinking (Sudirman et al., 2021), and provide the opportunity to develop their thinking and writing skills (Hashim et al., 2023; Ono & Ichii, 2019). Additionally, reflective journal contributed to improve students’ writing skills, such as the capability to make noun clause and arrange complex sentences smoothly in their writing (Tahmasbi et al., 2022). The current findings also confirmed the students’ capability in organize ideas and make complex writing construction improved which assessed based on a scoring rubric adapted from Kim (2019).

There are several considerations that must be taken into account regarding the students’ writing skills. The relationship between writing processed, text quality, and the development of understanding infrequently conducted in a direct tested (Baaijen & Galbraith, 2018). We then assumed the students’ writing skills improved in line with their writing scores after using reflective journaling. However, writing skills development occurs in a long, continuous, and deliberate practices (Graham, 2019). Moreover, the teachers’ feedback towards students’ writing is necessary, so that students can highlight and revise which component they need to revise and learn more to develop their writing quality. The guidance from teacher or instructors also must be taken day in and day out in order to maximize the
Indeed, reflective journaling also have positive implication for teachers. Students’ write their perception and experiences in classroom, which related to their experiences with teachers’ performance. In fact, Ahmed (2019) revealed several challenges students faced through reflective journaling leads to provide noteworthy information for teachers. The students’ reflective journaling in the current study also revealed several students’ perceptions about their classroom experiences and teacher practice in teaching and learning process. As a result, this information can help teachers to reflect on their teaching performance, searching for proper teaching strategy, and make decision to solve the problem.

Stephen D. Brookfield (2017) in his book argued that the students’ perspective has been the most crucial pedagogic knowledge for teachers. It means that the importance of learner-centered teaching is to knowing students’ experience on teachers’ practice in the classroom so the teacher can reflect and build new understanding from the students’ view. Critical reflection itself as theoretical and practical guidance for transformative teacher research which directs teachers to reflect in their practice in order to increase self-awareness of their practices (Korkko et al., 2016).

CONCLUSION

The current study showed the effect of the using of reflective journaling in EFL students’ writing. Reflective journaling provides students to reflect on their performance, monitoring their learning progress, and evaluate their improvement. Besides, the practice of reflective journaling indirectly enhance students’ writing skills. In fact, this study can be an evidence that there is a positive effect of using reflective journaling towards students’ writing skills.

Many educators and researchers put so much efforts in developing learning method due to the important role of critical thinking in professional practice (Ruiz-Lopez et al., 2015). Indeed, reflective journaling have a potential to enhance the ability in higher-order critical thinking and evaluative skills (Tahmasbi et al., 2022). However, the teacher’s guidance is necessary (Hung, 2019) and the practice of using reflective journaling should be implemented in the long-term in order to obtain maximum results.

Moreover, teachers and stakeholders can develop their teaching practice from the students’ views and challenges that written in reflective journaling. As Brookfield (2017) argued that the students’ perspective of teaching practice is important in pedagogy knowledge. Thus, through reflective journaling teachers can evaluate the students’ interest, needs, progress, and evaluate their teaching performance from students’ perspective to improve their teaching practice.

The current study provided an insight related to the effect of reflective journaling to enhance students’ English writing skills. Furthermore, reflective journaling leads students to reflect on their learning process and teacher performance as the researchers found in their reflective journal writing. However, this study suggests some recommendations for future research as the attempts to bridge the
existing research gaps. First, a study that conduct depth-investigations of high school students’ perspective of using reflective journaling is necessary. Another study to investigate the effect of reflective journaling on developing students’ reflective thinking level can be another insightful information to fill some gaps. Indeed, a mixed-method study is necessary to investigate the role of reflective journaling on students’ learning both quantitatively and qualitatively.

Another critical issue in this study is the sample size was small and focus only on two classes of twelfth grade students in an Islamic state school. Moreover, the treatment phase was done in short time, whereas the effect of using of reflective journaling possibly provides more significant improvement to students’ English writing skills should be develop continuously in long time.

REFERENCES


