

The Mediating Effect of Reflective Journal Writing on Writing Self-efficacy and Academic Achievement in a PBL Writing Course

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[Abstract]

The purpose of this study was to examine the relationship between writing self-efficacy and academic achievement in a project-based university writing class, and the mediating effect of reflective journal writing. A total of 135 college students participated in the study. The results showed that students with higher writing self-efficacy had higher academic achievement and wrote more reflective journaling. Reflective journaling was found to have a positive impact on reviewing learned content, improving metacognition and memory, and promoting idea development. Overall, consistent reflective journal writing not only enhanced writing self-efficacy but also positively influenced academic performance.

Key Words: Academic achievement, College writing course, PBL, Reflective journal writing, Writing self-efficacy

I. Introduction

Writing is a fundamental element in the advancement of complex societies and civilizations [1]. Acquiring writing skills is not only crucial for academic achievements but also essential for business and social success. The recent development of social networking services(SNS) has deeply permeated human life with writing, demonstrating the profound impact of logical and creative writing. As internet media continues to evolve, the expansion of communication channels has led to an increased volume of exchanged information. Consequently, the ability to effectively express necessary information has become even more significant. Nevertheless, due to education systems that prioritize entrance exams, students often acquire the grammatical

and theoretical knowledge covered in language and composition courses passively, merely to answer multiple-choice questions, lacking the experience of systematically composing texts. As a result, they lack practical experience in systematically composing writings, leading to vague fears and aversion towards writing [2]. Academic writing encountered at the university level demands the acquisition of expressive knowledge and procedural knowledge, enabling students to present abstract thoughts and opinions coherently, organized into paragraph units that go beyond the sentence level. Consequently, many freshmen experience apprehension and difficulties in academic writing, often considering themselves lacking the aptitude for it. The students' low writing self-efficacy makes writing tasks burdensome and creates a tendency to avoid them, thereby

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impeding the development of their latent writing abilities.

Writing self-efficacy refers to the belief individuals have in their ability to write effectively and is derived from the concept of self-efficacy introduced by Bandura(1977) [3]. In the context of writing, it specifically denotes one's belief in their capacity to produce well-written texts. Self-efficacy has a recursive relationship with academic success [4], whereby an increase in writing self-efficacy leads to improved writing performance and heightened achievement, which in turn further fosters the development of writing self-efficacy. Therefore, writing self-efficacy can serve as a significant indicator for predicting students' writing performance and achievement. However, most students in Korea have been accustomed to passive acquisition of knowledge due to the influence of college entrance exams and are more familiar with informal writing styles due to the impact of social media platforms. Thus, they may perceive academic writing at the university level with vague fears and burdens, leading to a decrease in their writing self-efficacy. Low self-efficacy has a negative impact on writing performance and achievement, hindering the development of writing abilities. Hence, addressing this issue calls for implementing strategies to bolster writing self-efficacy.

This study starts with an exploration of the potential effects of reflective journal writing in the context of a project-based writing course as a strategy to enhance writing self-efficacy. The aim is to investigate whether engaging in reflective journal writing, alongside project-based assignments, has a mediating effect on writing self-efficacy and academic performance. Specifically, the study examines whether there are differences in course achievement based on the degree of writing self-efficacy and the frequency of reflective journal writing. Additionally, the study explores the relationship between writing self-efficacy and actual academic achievement and determines whether reflective journal writing serves as a mediating factor in this relationship. Ultimately, the study seeks to validate the potential of reflective journal writing to foster metacognition, self-reflection, and belief in one's writing abilities as a catalyst for enhancing writing self-efficacy and academic performance. Based on these research objectives, the following research questions have been formulated:

- (1) Do differences in the degree of writing self-efficacy correspond to variations in academic achievement?
- (2) Do differences in the degree of writing self-efficacy correspond to variations in the frequency of reflective journal writing?
- (3) Do variations in the frequency of reflective journal writing correspond to differences in writing self-efficacy and academic achievement?

II. Literature Review

A. Writing Self-efficacy

Writing is the product of human thinking and expression, playing a crucial role in intellectual activities. Particularly in a university setting, writing is an essential skill for academic achievement, and students' possession of a high level of writing self-efficacy is of great importance. Writing self-efficacy is defined as an individual's belief in their ability to write effectively within a given context [5]. It represents an individual's belief that they can write well [6]. In other words, writing self-efficacy refers to the positive belief an individual holds about their own writing abilities and reflects the extent to which the writer believes in their own writing proficiency. Writing self-efficacy can be broadly categorized into grammatical function self-efficacy and expressive function self-efficacy [7]. Grammatical function self-efficacy pertains to the language's form, including factors such as grammar, spelling, and punctuation, while expressive function self-efficacy relates to how well one can effectively express the central ideas with coherence in a well-structured manner.

Writing self-efficacy has a highly positive impact on learners' writing anxiety and serves as a mediator for writing performance and aptitude [6,8]. Previous studies on writing self-efficacy have demonstrated a positive correlation with academic achievement in writing classes [6]. Students experiencing difficulties in writing tend to have lower writing self-efficacy, which consequently has a negative impact on their academic performance. Furthermore, writing self-efficacy also influences students' motivation to engage in writing tasks, making it a crucial factor in academic

achievement [9]. Students with high self-efficacy exhibit higher motivation [10], perseverance [11], greater effort, and lower levels of anxiety [12,13], leading to achieving better writing performance. In summary, positive writing self-efficacy can reduce students' anxiety, enhance their active participation in writing tasks through increased motivation, and enable them to overcome challenges, ultimately leading to improved writing performance.

B. Reflective Journal Writing

Reflective journal writing is a form of reflective writing that encourages individuals to contemplate their learning experiences [14], and includes self-reflection and metacognition [15]. Self-reflection in learning refers to the intellectual process of critically evaluating one's own learning process and outcomes [16]. In other words, reflection in learning promotes reflective thinking and cognitive growth as learners interpret and restructure their learning experiences. Additionally, the act of writing reflective journals can facilitate metacognitive processes such as planning, monitoring, and evaluation, which are essential for developing effective writing skills [17]. Through the process of reflecting on their writing, learners can demonstrate metacognition by identifying areas of understanding and recognizing areas where they lack comprehension. Therefore, incorporating reflective journal writing in writing classes provides students with opportunities to self-assess their writing, identify areas for improvement, and set specific goals for future writing tasks. It enables them to plan and prepare for future writing assignments in a systematic manner.

Indeed, numerous studies conducted in various fields such as mathematics, nursing, and engineering in Korea have shown positive effects of reflective journal writing on self-directed learning abilities, improvement of learning motivation, meaningful conceptualization of learning, and active engagement in the learning process [18-21]. Similarly, international studies have also demonstrated that reflective journal writing can enhance writing efficacy [14] and serve as an effective tool for promoting metacognitive awareness [22]. It has been argued that reflective journal writing can improve the efficiency of writing and enhance academic

achievement [23]. Reflective journal writing allows learners to introspectively examine their learning processes, fostering deep introspection and even internal transformations [24]. It can serve as a powerful self-evaluation tool that empowers students to evaluate their writing processes, critically reflect on their shortcomings, and plan strategies for improvement. Consequently, through the opportunity to engage in reflective journal writing, students are expected to exhibit positive effects on their writing efficacy and academic achievement by evaluating their writing processes, identifying areas of improvement, and planning for enhancements.

III. Methods

A. Participants and the PBL Course

The present study aimed to explore the potential roles of reflective journal writing in a project-based writing course on writing self-efficacy and academic achievement among students enrolled in academic writing classes at the university level. The participants of this study consisted of 135 undergraduate students enrolled in a basic writing course at a 4-year university located in Gyeonggi Province, South Korea. These students belonged to four different class sections taught by the researcher during the second semester of 2022. Initially, a total of 139 students were surveyed, but some participants dropped out or provided unreliable responses and were subsequently excluded. The course in question is a mandatory course subject taken by undergraduate students from various majors. The majority of the participants were freshmen (91.7%), with 7 sophomores (5.3%), 3 juniors (2.3%), and 1 senior (0.7%). Regarding the experience of reflective journal writing, 128 students (94.8%) responded that they had no prior experience. Only 13 students (9.6%) reported having received supplementary education in writing or composition before entering university. When asked about their level of interest in writing, survey results showed that 46 students (34.1%) responded with (very) interested, 50 students (37%) responded with average interest, and 39 students (28.9%) responded with (very) uninterested. The researcher was responsible for four classes numbered 01, 03, 04, and

Table 1. Basic information of the participants (N=139)

Academic Year	Experience of RJ	Prior education of writing	Level of interest in writing
Freshmen : 91 (91.7%)			(Very) Interest : 46 (34.1%)
Sophomores : 7 (5.3%)	Yes : 11(5.2%)	Yes : 13 (9.6%)	Average Interest : 50 (37.0%)
Juniors : 3 (2.3%)	No : 128 (94.8%)	NO : 126 (90.4%)	(Very) Uninterested : 39 (28.9%)
Seniors : 1 (0.7%)			

09. Since enrollment in each class was randomized to a capacity of 35 students, the distribution of majors, gender, and academic years varied slightly across classes. Due to the slight variations across the four classes, the data can be considered to have been collected from the entire student population, regardless of the classes they were in. The data was used to establish criteria for categorizing participants into high, medium, and low achievement groups based on measured values.

The course conducted over 15 weeks, with 2 hours per week. The first eight weeks focused on practical exercises for foundational writing skills, while the next seven weeks adopted a PBL approach for creative and critical writing. Two projects were implemented: one involved creating parody fairy tales to reflect contemporary social issues, and the other focused on argumentative writing about current social issues, encouraging group discussions and well-grounded solutions. Students worked in groups, formulated well-grounded solutions for the assigned project while simultaneously honing their writing and problem-solving skills and learning academic conventions. The ultimate objective of incorporating the PBL approach into this writing course was to enable students to participate actively in problem-solving and gain a more profound understanding of writing and its application in diverse contexts.

B. Instruments and Procedure

The instruments used in this study were a writing self-efficacy survey, reflective journals, and final grades. Firstly, the writing self-efficacy survey administered alongside the participants' basic background survey was adapted from the ten items used in Park and Choi's (2006) research on writing self-efficacy development, tailored to suit college-level writing. A total of eleven items, consisting of sub-factors of grammatical function self-efficacy and expressive function self-efficacy, were rated on a 5-point Likert scale ranging from “strongly agree” (5 points) to “strongly disagree” (1 point). The grammatical function self-efficacy items included spelling, punctuation, coherence, and five grammar-related aspects (e.g., ‘I can construct sentences with accurate spelling, including subject-verb agreement, and affixes.’), while the expressive function self-efficacy items included the ability to express central ideas, supporting sentences, and the organization of introduction, body, and conclusion paragraphs (e.g., ‘I have learned to organized paragraphs with a topic sentence supported by relevant details.’). The survey was conducted using Google Forms, with a clear statement that the data would be used for research purposes only. The data were collected from the students through a link provided to them immediately after

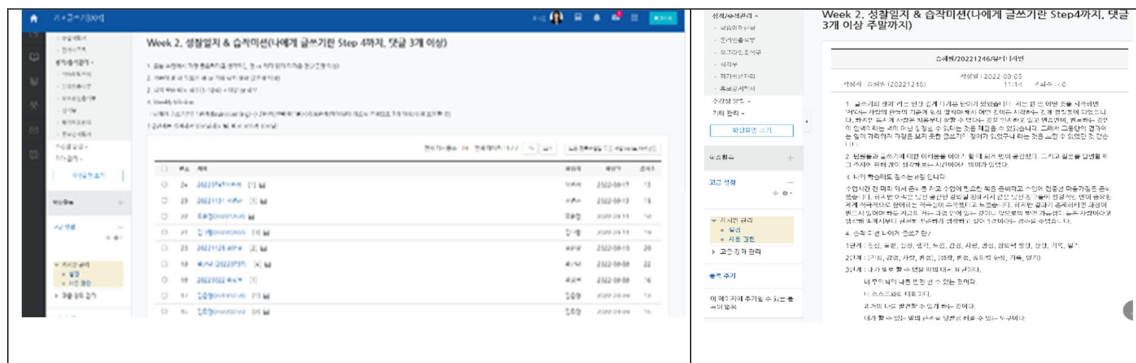


Fig. 1. Examples of reflective journaling on LMS.

the midterm exam, over a period of two weeks during the 8th to 9th weeks of the semester.

Secondly, reflective journals were required to be submitted through the Learning Management System (LMS) after each weekly class, along with the project-related writing assignments. Students were instructed to provide answers to three specific prompts. Previously, a reflective journal with four to five prompts had been attempted, but it was deemed that three prompts would be most appropriate for our university students. The three prompts were: (1) the most important point or meaningful insight gained from today's learning, (2) areas that require further study or other personal thoughts, and (3) a self-assessment score (ranging from 1 to 10) regarding one's learning attitude along with the reasons and determination. It was explicitly stated that each prompt should be addressed with at least two sentences to be counted as valid. Refer to Fig. 1.

The submission of the reflective journal was optional but carried a bonus score (ranging from 1 to 5 points) based on the frequency of submission. In the beginning of the semester, a notice was issued stating that 2 to 3 submissions would earn 1 point, 4 to 5 submissions would earn 2 points, 6 to 7 submissions would earn 3 points, 8 to 9 submissions would earn 4 points, and 10 or more submissions would earn 5 points.

Lastly, academic achievement was measured using the final scores obtained at the end of the semester. The final score for this course is based on a total of 100 points, with attendance accounting for 10 points, the midterm exam for 25 points, the final exam for 40 points, the draft assignments for 20 points, and class attitude and participation for 5 points. In our university, for required general education courses, a maximum of 35% can be assigned the grade of A, and the lower 25% of students must receive at least a C grade, following the policy of relative grading system.

C. Data Analysis

The survey results on writing self-efficacy, collected using the Google Forms survey tool, were analyzed using the SPSS 25.0 statistical analysis program. The analysis involved comparing the frequency of reflective journal writing and final exam scores, utilizing the data integrated

into the Learning Management System (LMS). Firstly, descriptive statistics, including the means and standard deviations of writing self-efficacy, reflective journal writing frequency, and final course scores, were calculated. Based on these results, participants were divided into three groups: high, medium, and low achievement. Significant differences and correlations among these groups were analyzed. Specifically, ANOVA and Pearson correlation analysis were used to examine the relationships between writing self-efficacy and academic achievement, and between the frequency of reflective journal writing and academic achievement. Moreover, for a comprehensive interpretation supported by qualitative insights, the content of reflective journals was also qualitatively analyzed alongside the quantitative findings. This mixed-method approach aimed to provide in-depth interpretations that support the quantitative findings derived from statistical analyses.

IV. Results and Discussion

The reliability of the 11-item writing self-efficacy survey, which measures how much students believe in their writing abilities, was indicated by Cronbach's α of .924 (expression function .917, grammar function .932), demonstrating a high level of reliability. Overall, the efficacy in expressive function ($M=4.12$) was slightly higher than the efficacy in grammar function ($M=3.78$). Firstly, considering the overall distribution of the writing self-efficacy scores, students with mean scores above 4 were classified as the high achievement group, scores ranging from 3 to 3.99 as the medium achievement group, and scores of 2.99 or below as the low achievement group.

To examine whether there were differences in academic achievement scores among these three groups, an ANOVA statistical analysis was conducted, revealing a significant difference ($p=.039$, $p<.05$). As shown in Table 2 below, the high group in writing self-efficacy had an average final score of 91.32, the middle group had 86.05, and the lower group had 77.08, indicating that higher writing self-efficacy corresponded to higher average final scores. Furthermore, a Pearson bivariate correlation analysis between these two variables indicated a significant positive correlation ($r=.319$,

Table 2. Descriptive statistics of academic achievement and the number of reflective journal entries by writing efficacy

Groups by writing efficacy	N	Academic achievement		N of reflective journal entries	
		M	SD	M	SD
High Group (above 4)	58	91.32	16.21	7.85	3.21
Mid Group (3~3.99)	56	86.05	19.92	6.22	4.95
Low Group (below 2.99)	21	77.08	21.54	4.71	5.52

$p < .01$). In other words, higher belief in one's writing ability was associated with higher actual academic achievement, suggesting a positive impact of the writing course.

Next, the analysis of whether there were differences in the frequency of reflective journal writing based on writing self-efficacy revealed the following results, as presented in Table 2. The mean frequency for the high achievement group was 7.85, for the medium achievement group it was 6.22, and for the low achievement group it was 4.71. These findings indicate that higher levels of writing self-efficacy were associated with a greater frequency of reflective journal writing. The results of the ANOVA statistical analysis also indicated a significant difference in the frequency of reflective journal writing among the groups based on the level of writing self-efficacy ($p = .047, p < .05$). These findings suggest that students with higher writing self-efficacy not only demonstrate higher academic achievement but also exhibit more active participation in reflective journal writing. In line with previous research, higher writing self-efficacy has been associated with increased motivation [9], higher levels of intrinsic motivation [10], lower levels of anxiety [12,13], and greater perseverance [11], all of which are positively related to academic achievement [6]. Thus, it was confirmed that students with higher writing self-efficacy are more intrinsically motivated, actively engage in reflective journal tasks, demonstrate perseverance, and invest more effort in overcoming learning challenges, ultimately leading to higher academic achievement.

Finally, to investigate whether there are differences in

writing self-efficacy and academic achievement based on the frequency of reflective journal writing, the overall frequency was taken into consideration, and students were classified into three groups: 0-3 times as the low-frequency group, 4-7 times as the moderate-frequency group, and 8 or more times as the high-frequency group. ANOVA statistical analysis revealed significant differences in writing self-efficacy among these three groups, indicating that higher frequency of reflective journal writing was associated with higher levels of writing self-efficacy ($p = .049, p < .05$). Furthermore, the Pearson bivariate correlation analysis between the frequency of reflective journal writing and writing self-efficacy also demonstrated a significant positive correlation ($r = .257, p < .01$), indicating that students who consistently engaged in reflective journal writing exhibited higher levels of writing self-efficacy.

As presented in Table 3, students with higher frequency of reflective journal writing not only demonstrated higher levels of writing self-efficacy but also achieved higher academic performance. Statistical analysis examining the differences among the three groups also revealed a significant difference in academic achievement based on the frequency of reflective journal writing ($p = .033, p < .05$). Moreover, the Pearson bivariate correlation analysis between these two variables demonstrated a relatively strong and significant positive correlation ($r = .715, p < .01$). The findings thus far indicate a positive correlation between the frequency of reflective journal writing and both academic achievement and writing self-efficacy. The specific degrees of correlation

Table 3. Descriptive statistics of academic achievement and writing efficiency by the number of reflective journal entries

Groups by the number of reflective journal entries	N	Writing efficiency		Academic achievement	
		M	SD	M	SD
High Group (above 8 times)	59	4.32	0.37	92.07	17.8
Mid Group (4~7 times)	56	4.09	0.63	87.26	19.2
Low Group (1~3 times)	20	3.75	0.58	81.07	18.4

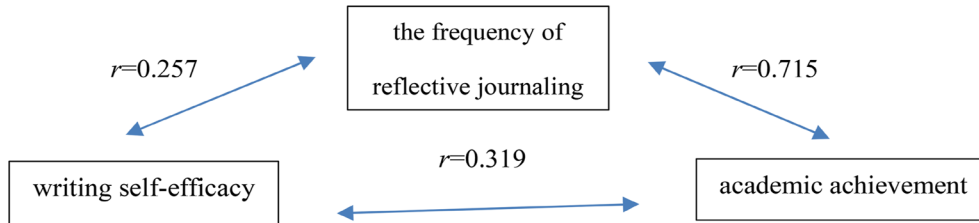


Fig. 2. Correlation between reflective journaling frequency and academic achievement and writing self-efficacy.

among the frequency of reflective journal writing, academic achievement, and writing self-efficacy can be summarized in Fig. 2.

As depicted in Fig. 2, all three variables exhibit significant positive correlations, with the highest correlation observed between the frequency of reflective journal writing and academic achievement. This implies that students who diligently engage in weekly reflective journal writing are more likely to demonstrate higher academic achievement. In relation to this, several positive effects were found in the common responses provided by students in their reflective journal entries.

“While writing the reflective journal, I find it beneficial that I naturally review and recall the most important points, newly acquired knowledge, and meaningful insights from what I learned today. In class, I may understand the content, but often forget what I learned in the previous sessions. However, by keeping a reflective journal, the contents I write seem to remain in my memory more vividly. The professor shares valuable insights during every class, and I am motivated to take detailed notes to ensure I don't forget and to include them in my reflective journal. I am determined to write the journal more than 10 times and receive the full bonus score of 5 points.” (Excerpt 1. from Reflective Journal, Week 5, Class 01, by Choi OO)

“At first, the assignment of keeping a reflective journal alongside the project-based class felt burdensome and challenging. However, as I started writing it every week, I gradually began to understand why our professor assigned this task. It helps me review what I learned during class and realize what is truly important. It also prepares me for the next class, making me consider how to better prepare myself.

Reading other students' reflective journals also provides valuable insights, helping me identify any missed points or concepts I may not have fully grasped. Overall, I find this experience to be valuable.” (Excerpt 2. from Reflective Journal, Week 9, Class 09, by Kwon OO)

“As we delved into the project-based class, I found that writing the reflective journal helped me organize the opinions and plans discussed in class with my team members. It feels like everything comes together while I write my journal. Today, during our team meeting, an idea that I hadn't pondered earlier came to mind while writing my reflective journal, so I included it in section 2. I think it would be beneficial to discuss and incorporate it the next class.” (Excerpt 3. from Reflective Journal, Week 9, Class 04, by Kim OO)

According to the students' reports, through the process of writing reflective journals, they found that it helped them review and retain the knowledge they learned in the writing class on a weekly basis. It also enhanced their metacognition by identifying what was important. Moreover, it provided an opportunity for them to plan and commit to their future actions. Reading other students' reflective journals allowed them to recognize their own areas for improvement. Particularly in the context of the project-based class, the act of summarizing various opinions and information shared with teammates during class discussions served as a catalyst for developing ideas.

Although some students initially felt burdened by the requirement to write reflective journals every week and were unsure about what to write, many of them gradually emphasized the importance of more detailed content and the significance of reflective journals as they continued writing,

often mentioning their motivation to receive bonus points. In summary, writing reflective journals not only facilitated the review of learned material, but also enhanced metacognition, memory retention, and idea development. This, in turn, had a positive impact on increasing writing self-efficacy. Hence, students who consistently and diligently wrote reflective journals demonstrated higher academic achievement, indicating a static correlation between writing self-efficacy and actual academic performance.

V. Conclusion and Implication

This study aimed to explore the potential mediating effects of reflective journal writing on writing self-efficacy and academic achievement among university students enrolled in a project-based introductory writing course for one semester. Participants were encouraged to reflect on and evaluate their learning experiences and the writing project process through journal writing. The findings revealed a significant positive relationship between higher levels of writing self-efficacy and both academic achievement and the frequency of reflective journal writing. Specifically, higher frequencies of reflective journal writing were associated with higher levels of writing self-efficacy and academic achievement. While positive correlations were observed among writing self-efficacy, academic achievement, and the frequency of reflective journal writing, the highest static correlation was found between the frequency of reflective journal writing and academic achievement. Based on these research findings, the following conclusions and implications can be drawn:

Firstly, the findings of this study, indicating that higher writing self-efficacy is associated with greater academic achievement and that reflective journal writing mediates this relationship, can serve as empirical reference for educators considering the implementation of reflective journaling and researchers interested in reflective learning approaches. Writing can facilitate learners in gaining a thorough understanding of concepts, enhancing problem-solving abilities, promoting critical thinking, and advancing the learning process in various domains of education [25,26]. Reflective journal writing provides learners with

opportunities to review the knowledge they have acquired and internalize their learning experiences, thereby enhancing their thinking skills and learning outcomes as well as facilitating their metacognitive awareness and overall academic success. As such, the incorporation of reflective journal writing into educational practices holds great potential for enhancing the learning outcomes of students across different academic disciplines. Therefore, it can be utilized in various educational contexts across different subjects.

Secondly, the results of this study indicate that groups with higher frequencies of reflective journal writing exhibited both higher writing self-efficacy and higher academic achievement, with a particularly strong correlation observed between the frequency of reflective journal writing and academic achievement. This implies the need for the active implementation of reflective learning practices in educational settings, as these practices positively impact students' writing self-efficacy and academic performance. Through reflective journal writing, students can retrospectively review and evaluate their understanding of course materials and learning processes, leading to an enhancement of their writing self-efficacy. Writing self-efficacy holds significant importance for academic achievement [9], as it positively affects students' motivation to engage in assignments, even in the face of writing anxiety [13]. Thus, educators need to recognize the importance of reflective journal writing and integrating it into their teaching repertoire to enhance students' writing self-efficacy and academic performance. Moreover, providing guidance and support in developing effective reflective writing skills can further enhance its impact on students' writing self-efficacy and academic performance.

Thirdly, based on qualitative analysis, students reported that reflective journal writing facilitated the review of learned content, enhanced metacognitive awareness and memory, and contributed to idea development. Although it was optional, many students chose to write reflective journals weekly to earn bonus points. Initially, they expressed feelings of uncertainty and burden, but gradually recognized the value of this practice and its benefits. Consistent engagement in reflective journal writing provides an opportunity for reviewing learned content, enhancing

metacognitive processes, and fostering motivation to develop ideas and undertake better writing projects. These findings align with previous research on the effects of reflective journal writing in other subject areas, interpreted within a similar context [14,18-24]. Therefore, it is crucial to emphasize the benefits of reflective journal writing to students and motivate them to engage in regular writing practices to enhance their learning outcomes. For instance, implementing a motivation and reward system, such as offering bonus points or incentives, can foster student participation, enthusiasm, and sustained engagement in regular reflective journal writing. In particular, it is important to encourage students with low self-efficacy and high writing anxiety to engage in consistent reflective journal writing, enabling them to experience the learning benefits.

This study identifies several limitations and provides suggestions for future research. First, this study focused on 135 students from four classes of a basic writing course at the researcher's university, which may limit the generalizability of the findings. It is recommended that future research examine the effects of reflective journal writing in a broader range of universities and across various academic subjects, allowing for comparisons and a more comprehensive understanding of its impact. Second, this study measured self-efficacy in writing once after the midterm and compared it with the frequency of reflective journal writing and academic achievement. To further investigate the direct and immediate effects of reflective journal writing, it is suggested that future research conduct pre- and post-measurements of self-efficacy, specifically before and after engaging in reflective journal writing, to assess the changes more precisely. Additionally, specific instructional strategies should be developed to enhance motivation and quality of reflective journal writing, particularly for individuals with low self-efficacy in writing, as this may increase their participation in reflective journaling. This study provides valuable insights into the potential benefits of reflective journaling for promoting writing efficacy and academic achievement. However, further research is necessary to validate and extend these findings, considering the suggested limitations and recommendations for future investigations.

References

- [1] J. Goody, *Literacy and Classification: On Turning the Table*. In R.K. Jam. (ed). *Text and Context*. Philadelphia, 1977.
- [2] S. Y. Pyo, "The effectiveness of project-based learning on basic writing classes in college," *Journal of Learner-Centered Curriculum and Instruction*, vol. 23, no. 1, pp. 273-289, 2023.
- [3] A. Bandura, "Self-efficacy: toward a unifying theory of behavioral change," *Psychological Review*, vol. 84, pp. 191-215, 1977.
- [4] K. A. Robinson, T. Perez, A. White-Levatich, and L. Linnenbrink-Garcia, "Gender differences and roles of two science self-efficacy beliefs in predicting postcollege outcomes. *Journal of Experimental Education*. pp. 344-363. Sept. 2020. [Online]. Available: <https://doi.org/10.1080/00220973.2020.1808944>.
- [5] A. Bandura, *Self-efficacy: The Exercise of Control*, York: W. H. Freeman, 1997.
- [6] F. Pajares, "Self-efficacy beliefs, motivation, and achievement in writing: A review of the literature," *Reading and Writing Quarterly*, vol. 19, no. 2, pp. 139-158, 2003.
- [7] Y. M. Park and S. K. Choi, "A development study on writing self-efficacy of Korean students," *Korean Education*, no. 82, pp. 95-126, 2009.
- [8] F. Pajares, "Empirical properties of a scale to assess writing self-efficacy in school contexts," *Measurement and Evaluation in Counselling and Development*, vol. 39, no. 4, pp. 239-249, 2007.
- [9] B. J. Zimmerman, "Self-efficacy: an essential motive to learn," *Contemporary Educational Psychology*, vol. 25, no. 1, pp. 82-91, 2000.
- [10] Y. Zang and H. Guo, "A study of English writing and domain-specific motivation and self-efficacy of Chinese EFL learners," *Journal of Pan-Pacific Association of Applied Linguistics*, vol. 16, no. 2, pp. 101-121, 2012.
- [11] M. S. Prat and P. Redford, "Writing essays: does self-efficacy matter? The relationship between self-efficacy in reading and in writing and undergraduate students' performance in essay writing," *Educational Psychology*, vol. 32, no. 1, pp. 9-20, 2012.
- [12] F. Pajares, S. L. Britner, and G. Valiante, "Relationship

- between achievement and goals and self-beliefs of middle school students in writing and science,” *Contemporary Educational Psychology*, vol. 25, pp. 406-422, 2000.
- [13] L. Woodrow, “College English writing effect: self-efficacy and anxiety,” *System*, vol. 39, no. 4, pp. 510-522, 2011.
- [14] D. Boud, R. Keogh, and D. Walker, “Promoting reflection in learning: a model,” in D. Boud, R. Keogh, and D. Walker, (Eds.), *Reflection: Turning Reflection into Learning*. pp. 18-40. London: Routledge, 1985.
- [15] D. A. Schön, *The Reflective Practitioner*, London, Temple Smith, 1983.
- [16] J. Mezirow, *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning*, San Francisco, Jossey-Bess, 1990.
- [17] J. Flavell, “Metacognition and cognitive monitoring: a new area of cognitive-developmental inquiry,” *American Psychologist*, vol. 34, no. 10, pp. 906-911, October 1979.
- [18] H. K. Kim and C. J. Kim, “A study on the influence of a reflection journal upon self motivated-learners’ study,” *Journal of Engineering Education Research*, vol. 19, no. 5, pp. 65-71, 2016.
- [19] H. K. Kim, “The effects of self-reflecting journal on speaking ability in the communication education for science and engineering,” *Journal of Engineering Education Research*, vol. 21, no. 5, pp. 3-9, 2018.
- [20] J. Chang, “Developing self-directed learning by keeping English reflective journals,” *Research Institute of Curriculum and Instruction*, vol. 13, no. 4, pp. 697-716, 2009.
- [21] N. Heo and J. Kim, “Communication practicum experience among nursing students: reflective learning approach,” *Journal of Learner-Centered Curriculum and Instruction*, vol. 17, no. 19, pp. 311-333, 2017.
- [22] J. Moon, “Learning through reflection,” in F. Banks, and A. S. Mayes, (Eds.), *Early Professional Development for Teachers*, pp. 364-378, The Open University, 2001.
- [23] D. D. Stevens and J. E. Cooper, *Journal Keeping: How to Use Reflection for Effective Teaching and Learning, Professional Insights & Positive Change*, Sterling, Virginia: Stylus Publishing, LLC, 2009.
- [24] W. Moore and S. Hunter, *Beyond ‘Mildly Interesting Facts’: Student Self-Evaluations and Outcomes Assessment*, in MacGregor, pp. 65-82, 1993.
- [25] M. Kieft, G. Rijlaarsdam, and H. Berge, “Writing as a learning tool: testing the role of students’ writing strategies,” *European Journal of Psychology of Education*, vol. 21, pp. 17-34, March, 2006.
- [26] S. Fry and A. Villagomez, “Writing to learn: benefits and limitations,” *College Teaching*, vol. 60, no. 4, pp. 170-175, September 2012.



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