Reflective writing in the pandemic period: A university students' reflection

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Article Info	Abstract
Keywords: Online learning, Thesis Reflective writing Students' reflection Pandemic Research Article	This qualitative study analyzed pedagogical aspects based on reflections of experience of 7th-semester students in reflective writing activities while working on thesis assignments in the undergraduate program of Elementary School Teacher, Universitas Pendidikan Indonesia at Serang Campus during the COVID-19 pandemic. By involving 67 students, reflective writing learning data were analyzed based on learning feedback and online guidance collected through an online survey and a combination of semi-structured interviews via teleconference. This study confirmed that reflective writing activities could make students overcome difficulties in writing online guidance. Students can independently implement the context of reflection in the writing process and develop logical thinking in scientific writing. Reflective writing activities are considered appropriate for medium-term structured learning and assignments such as theses. These results can be a basis for using reflective writing practices in other writing assignments during the online learning period. Reflective writing practice was expected to be integrated into learning to encourage students to get used to reflective practice.

1. Introduction

Many works of the literature showed the effectiveness of reflective writing practice for learning. Not only in education, but every human activity also contains a process of reflection. Reflection occurs when students consciously consider, review, and evaluate their learning experiences. When students are not aware of their learning experiences, they tend to fail to assess and evaluate them independently. Awareness of the learning experience is an essential component of learning. Reflection is a process that allows students to pay more attention to their learning (Pratiwi, 2012). The reflection process's emergence also shows students' seriousness in learning something and is an essential skill as a lifelong learner. The process of independent learning and the skills of being a lifelong learner are essential during the COVID-19 pandemic, where all levels of education are doing distance learning, including final-year students who are preparing their final project or thesis. On the other hand, they need guidance to complete their final assignments in a clear and detailed manner, but face-to-face supervision is not permitted. Students are required to equip themselves with evaluative skills to anticipate this situation. The thesis itself demands specific writing skills to meet the quality, such as structure, coherence, and cohesion (Clarke, 2004).

According to several experts, there are several benefits from the application of online learning in learning, including facilitating classroom management, increasing interaction, developing learning independence, expanding access to learning resources, and overcoming distance and time limitations. Concerning independent learning, online learning is appropriate for self-directed or reflective learning (Rais & Aryani, 2019). Through online learning, students have the opportunity to learn at their pace, style, and

comprehension. Various learning content facilities that provide students with an alternative to choosing their preferred way of absorbing information are expected to personalize themselves and enjoy learning activities to create motivational and independent learning (Bovermann, Weidlich, & Bastiaens, 2018).

How lecturers and students work towards developing their writing skills online is very important to emerging. Reflective writing is one of the methods used by students in preparation for their thesis writing during an online situation (Steele, 2015). This reflective writing habit will later become the initial capital in writing a final project in online supervision situations. It aims to strengthen quality by connecting other ideas and knowledge independently (Gordijn et al., 2018). Referring to this, researchers are interested in seeing the results of students' reflections who use reflective methods to write theses through online learning.

Therefore, this study seeks to analyze the pedagogical aspects of reflection based on students' experiences who carry out reflective writing activities during online supervision. This study investigated to what extent the reflective writing method used in students' thesis based on students' point of view. In addition to analyzing student reflections, this paper also discusses the benefits and limitations of reflective writing used in writing theses.

2. Literature Review

Reflection is a process of connecting theory and practices through a continuous thought process. The reflective thinking process is defined as reconsidering every possibility, belief, and all forms of knowledge in depth to support the conclusions that have been and will be drawn (Livingstone, 2019). There are three components of reflective training, namely Experience (an event that someone experienced), Reflective (deliberative processes that a person might learn from their experiences, and Action (move taken from the results of reflection) (Jasper, 2005). Based on the process of concluding, the reflection process can occur when students experience the learning process (in-action) and at the time after the learning process (on-action) (Malthouse & Roffey-Barentsen, 2013). The reflection process allows students to gain knowledge from what they experience, then transforming it into knowledge to anticipate experiences that will be faced in the future because the reflection process can significantly develop thinking and problem-solving skills (Cisero, 2006; Farrah, 2012; O'Connell & Dyment, 2011).

The reflection process is also related to critical thinking since it is considered to encourage students to expand and improve natural consideration in evaluating situations before taking action. Considering arguments, theories, reality, thoughts, and other experiences makes a person who does the reflection process more critical and responsive in identifying the action choice. (Jung, 2011). To develop critical thinking and attitude, reflective writing must be done frequently. Writing on specific topics through continuous evaluation and reflection can improve the quality of the depth of the writing produced (Lyons, 2010). Reflective writing is recognized as an effective alternative to facilitate students' critical thinking processes. (Gorlewski & Greene, 2011; Purcell, 2013). Reflective writing is also considered a part of higher-order thinking skills because it involves cognitive, affective, social, and meta-cognitive aspects (Williams, Woolliams, & Spiro, 2012). From the cognitive aspect, reflective writing can help students deepen learning. An in-depth learning process, it will simultaneously increase learners' self-confidence and cognitive abilities. From a metacognitive perspective, reflective writing requires students to analyze and organize ideas into complete, structured, and coherent knowledge. Affective aspects appear in the reflective writing process because students express and describe their experience emotionally in written form and reflect the values, thoughts, and knowledge into one written idea (Prosser & Webb, 1994). Therefore, good reflective writing skills have an essential role in the learning process, especially for high school institutions, because of their impact on improving learning performance.

Even though it is assumed very useful, several things must be considered in choosing reflective writing activities as learning. Reflection is a cognitive activity exploring the writer's ideas and experiences, so it is difficult to judge how robust the reflection process is in student writing activities (Kembe et al., 2008).

However, this is also an advantage as more flexible in the assessment process. The depth of reflection so far has only been assessed from the results of the writing produced and the activity observations during the writing process (Boud & Falchikov, 2006). In measuring this reflective process's depth, a hierarchical cognitive structure represents the learning process as described by (Ono & Ichii, 2019).
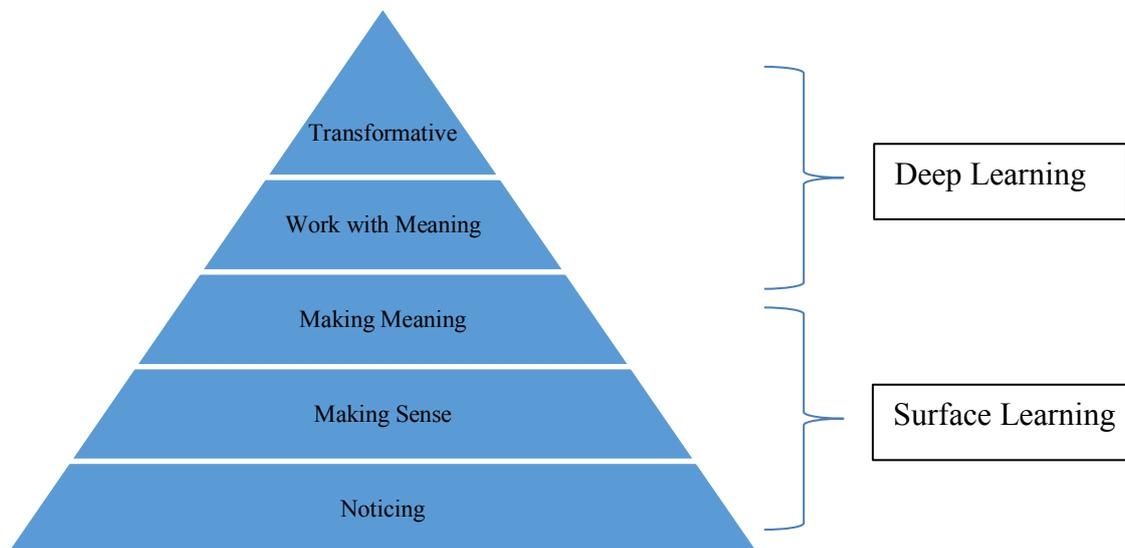
Fig. 1. Hierarchy Pyramid of Cognitive Structure in Reflective Writing

The Noticing stage occurs when students begin to find topics or focuses that are interesting or important to explore further. The Understanding stage is where students think more about the topic or theme that has been selected and look for coherence between ideas. The making sense stage is marked when students begin to understand the topic or theme conceptually, then question and connect ideas into writings. These steps start to enter the cognitive structure. In the Making Meaning stage, students can make connections between ideas and other things. Students will begin to refer to research and other literature sources. This stage ends with arranging understanding and ideas towards specific goals. Meanwhile, in the Transformative Stage, students with high self-motivation can show where they can formulate their new ideas. This stage can repeatedly occur without having to contact the original learning material.

Those stages are reflected in the output of the writing as shown below.
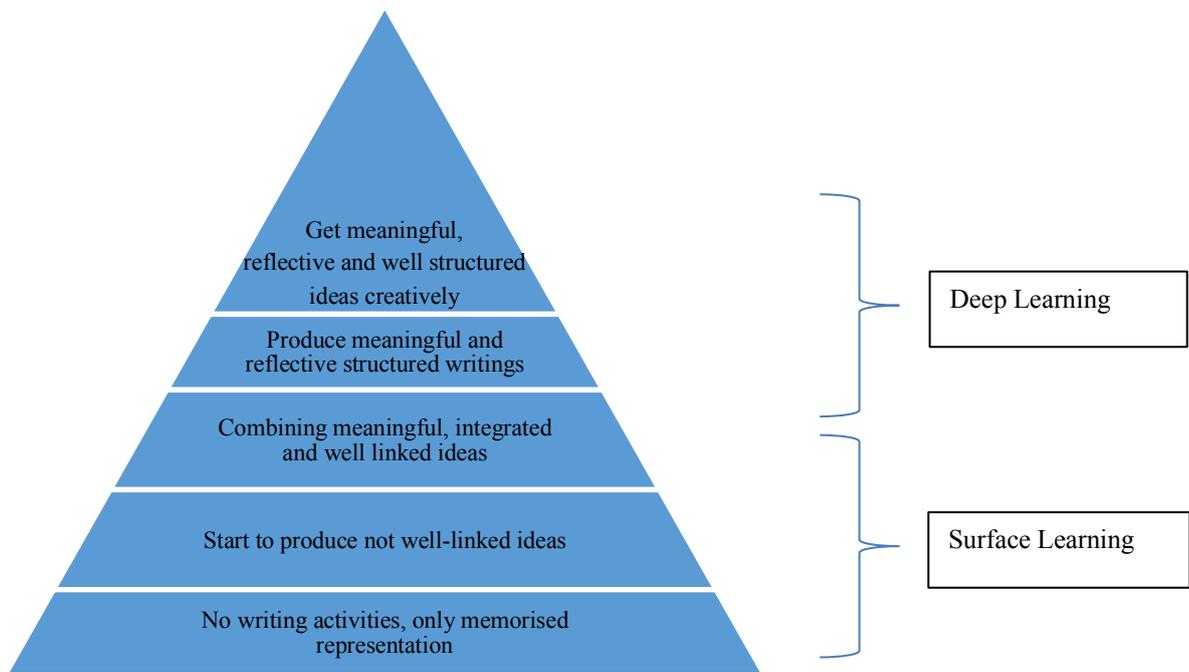
Fig. 2. Pyramid of Output Representation of Cognitive Structure Hierarchy in Reflective Writing

The structure of reflective writing learning is also a stage of learning. This learning stage is hierarchical, developing from surface (low) to deep (high) learning. In the last two learning stages -working with meaning and transformative learning- students reach the pinnacle of deep learning.

Online reflective writing in this study refers to some form of writing activities including a stand-alone assessment task to reflect on students in light of educational theory incorporated into some type of writing, such as essays, with an online situation of supervision or guidance. Through this study, the authors try to analyze the reflections of students who experienced a critical reflective writing process. Referring to this, researchers are interested to see students' points of view after using reflective methods to write theses through online learning. The significance of this study will contribute to the limited description of the reflective writing successful from the students' side. Since the effectiveness of reflective writing is mostly measured by the result of writing. In reflective writing models, students take the main role so that investigating students' point of view and pedagogical aspect they found will ideally construct the implementation further.

2.1. Objective of the Study

This study examined the results of the Elementary School Teacher Program students' reflections at Universitas Pendidikan Indonesia Serang Campus after carrying out reflective writing activities in writing their thesis by online supervision in the odd semester of 2020/2021.

3. Methodology

3.1. Participants

Participants involved in this study were 67 7th-semester students who contracted the thesis course taken from the total of 180 final-year students population. Students who participated in this study were the experimental group in improving thesis writing skills using reflective method research. These students have conducted the reflective writing learning process through a reflective writing guide book and online supervision. The students employed Google Meet and WhatsApp application to conduct thesis supervision. They wrote their thesis in Google Docs platform and share to the supervisor and 3-4 students so that they can commented and share the essay improvements. They synchronously meet the supervisor and group

discussion for each chapter of thesis completed using online platform. This reflection is a follow-up research on the learning outcomes of these students.

3.2. Data Collection

Reflective writing reflection data were analyzed based on two data sources, namely learning feedback and online guidance, through a Google Form survey and a combination of semi-structured interviews via teleconference. All of 67 students were interviewed one-on-one to deepen the result of survey questions related to their process of online supervision, feedback and their improvements on their thesis result. In the survey and interview, students were asked about the practice, benefits, and limitations of the reflective writing method and how it supports them to achieve maximum results in thesis writing (Dyment & O'connell, 2014).

3.3. Data Analysis

The data collected were analyzed quantitatively using percentages and means for the sake of descriptive analysis. The objective was to determine the current practice, benefits and limitation of reflective writing process. The data collected from the interview was utilized to support and triangulate the findings of the questionnaire. The in-depth descriptive analysis of the interview data supported several findings of the online survey. To indicate the number of participants interviewed, authors used code of alphabetic and number order, A to Z (first 26 students) and continued by A1 to Z1(for students number 27 to 52) then A2 to O2 (for students number 53 to 67). This research is essential to bridge the gap between research and teaching in using reflective writing activities in the final project. As noted in the introduction, a growing body of literature has examined the value of reflective writing, but few studies have used qualitative data analysis. Besides, this study is useful for increasing our understanding of the effects of students' reflective writing activities, covering knowledge acquisition and retention, and improving their experience of knowledge and learning satisfaction. The data analysis used was the qualitative method.

4. Findings and Discussions

4.1. Students' Reflective Writing Activities

In this aspect, the researcher used 16 items as indicators to determine the most frequently used reflective writing practice. The survey results from the 16 activities are illustrated in the following Table.

Table 1.

Students' Reflective Writing Activities

Reflective Writing Statements	Participants	Percentages
I wrote the essence of advice online into a note	46	68.66%
I had a special book or application to record online supervision results	31	46.27%
I developed notes on online supervision results by themselves	48	71.62%
I wrote my opinions on the written revision	20	29.85%
I included other sources in the writing ideas	58	86.57%
I asked questions about unclear during online guidance	59	88.06%
I asked questions about material I has missed	60	89.55%
I reviewed the writing rules sentence structure and punctuation as well as typing errors	66	98.51%

I reviewed writing rules as well as sentence structure	59	88.06%
I reviewed punctuation and typing errors	58	86.57%
I reviewed my writing before online consultation	66	98.51%
I often exchanged guidance notes with friends in the group	64	95.52%
I faced problem with online consultation	40	59.70%
I was always excited about facing online tutoring	56	83.58%
I found their own mistakes	63	94.03%
I applied the solutions independently	56	83.58%

Most of the participants carried out the 16 indicators of reflective writing activities. For example, the first indicator -*writing the essence of advice online into a note*- is done by approximately 68.66% of participants. Even though only 46.27% of students *have a special book or application to record online supervision results* (2nd indicator), they record their guidance well. *They developed notes on online supervision results by themselves* (3rd indicator) in their writing (71.66%). Even though 29.85% students still tend to follow the supervisor's direction compared to *writing their opinions on the written revision* (4th indicator), 86.57% of them always *include other sources in the writing ideas* into their thesis chapter (5th indicator).

The activity that students often commit (88.06% and 89.55%) is to *ask questions about unclear during online guidance* (6th indicator) even though the *material has been missed* (7th indicator). Other activities such as *reviewing writing rules* as well as *sentence structure* and *punctuation and typing errors* are also quite often done by 85% of students (8th-10th indicator). In addition to *reviewing their writing* before online consultation, 95% of participants admitted that they often exchanged guidance notes with friends in the group (11th-12th indicators) when using the reflective writing method guide. Participants also felt that they were always *excited about facing online tutoring* because they *found their own mistakes* and *applied the solutions independently* before the mentoring process (above 80%).

From the analysis of students' reflective writing practices, it can be seen that the majority of students meet the criteria for reflective writing. If it is done evenly, about 79% of students' reflective writing activities have been carried out. These results classify them at the level of deep learning. It is indicated by the results of a survey where students can formulate their ideas and then reflect on other sources and knowledge. Thus it can be seen that the participants have entered the high category reflective learning stage.

4.2. Increasing Self-Confidence

The participants recognize reflective writing practice to have several benefits. Among them are being able to increase self-confidence as a consequence of improving logical thinking skills and structured writing. Reflective writing is considered useful to give students opportunities to develop their thinking and writing skills. Some of the phrases that refer to the race of self-belief are as follows.

In this way, I can learn by practicing writing, I feel this really helps me to think coherently …… *[Student A]*

I think my ability and thinking skills have improved..... [Student B]

By reflecting, I am more confident before facing supervision ..... [Student E]

Even though there is rarely consultation, but during the exam, We are quite sure because it is following the examiner's way of thinking..... [Student G]

This result supports several studies stating that reflective writing benefits are believed to improve writing skills and critical thinking (Farrah, 2012; O'Connell & Dyment, 2011). Most students find it useful to acquire these skills. Some students highlighted the effects of reflective writing on online tutoring and feel confident when they face exams because they can develop logical thinking and structured writing skills (Livingstone, 2019). It is also in line with the statement by Ryan & Ryan (2013), where successful academic reflective writing must be taught with structure and address awareness and its relation to task perception, self-regulation, and self-evaluation of performance (Negretti, 2012).

4.3. Deeper Understanding

As shown by several studies, students feel that deeper understanding is one of the critical benefits of reflective writing. During the reflection process, several signs of reflection make learning deeper, such as continuous thinking. Students' independent evaluation in reflective writing activities helps students be closer and more intensive to the topic or theme, helping them deeper on processing their ideas and thought flow. The following statements are some examples.

> *I like it because I felt that I had to focus on the topic, and couldn't just skim reading..... [Student K]*

> *I have to write down the main points and then development..... [Student M]*

> *After having an idea, I became really curious to read, and made me think more about the chapter I am writing..... [Student O]*

These results support Livingstone's (2019) research, which shows that a strong and transferable knowledge process characterizes deep learning. The learners understand how, why, and when to apply their knowledge to solve problems. The reflective writing process allows students to develop sustainable thinking and solve problems in writing. The students assumed by reflective writing they can enrich and explore their writing without supervisor instruction (Jensen, 2010).

Another sign of deep learning, besides transferable knowledge, is a critical sign of successful reflection and the use of reflective writing opportunities to advance these abilities (Pellegrino & Hilton, 2012). Several comments representing this opinion are among others.

> *I feel I have a deeper understanding of what I write .... [Student C]*

> *In this method, I learn to make concepts, and logical thinking flows about the results of the lecturers' revisions in-depth .... [Student F]*

> *The lecturer asked me to criticize my writing many times by making our own assessments - or asking friends in online tutoring..... [Student G]*

4.4. Limitations of the Online Reflective Writing Method

Apart from the students' various benefits, they also noted some difficulties in reflective writing activities after online supervision. Student K, for example, explained that they face a problem with reflective writing, not reflective writing but at stages that do require a long process before it becomes writing:

> *The flow becomes longer, usually, we write directly then corrected, but we don't have to check it several times ..... [Student K]*

> *If you have an idea, you have to communicate it directly with friends because the response is sometimes long.... [Student O]*

Another challenge is the difficulty some students have in expressing their ideas and integrating them with appropriate literature to support them. Participants are expected to write their ideas more analytically by adding other figures' opinions, not just personal assumptions.

> *Every sentence must have a quotation, so you have to really look for and read a lot .... [Student P]*

The most challenging thing is to synthesize and continue to differentiate where we get the opinion of a character or theory….. [Student W]

The product of reflective writing, which combines many ideas being one conclusion, does tend to be valued higher than personal reflection (Williams, Woolliams, & Spiro, 2012). It is also a challenge because students have different preferences and levels of understanding of the topic being written; thus, some students feel that they are the central place of reference.

I don't know why I am asked to review by many friends… [Student U]

Because of online communication, I often ask lecturers even for elementary things according to my friends….. [Student S]

This is following Pratiwi (2012) research results that offering reflective writing must be adjusted to the academic level of different students because the reflection process will be different for each individual. The tendency to ask one or two people who are considered to have a higher academic level will be evident (Ross, 2014).

5. Conclusion and Suggestions

In situations where learning and supervision should be executed using online methods, reflective writing activities are considered very suitable for scientific writing final assignments. The majority of students enjoy and carry out reflective writing activities as seen from the activity indicators that are fulfilled 78%. The level of learning carried out by the Elementary Teacher Education Program students of Universitas Pendidikan Indonesia at Serang Campus can also be categorized at a high level of deep understanding because they are able to compile ideas and reflect them into a structured outcome. On average, participants are at the Work with Meaning processing stage and are already aware of the benefits of the reflective method. This study confirms that students appreciate the use of reflective writing methods in their final assignments in pandemic situations. They see benefits for the transfer of knowledge, critical thinking, and writing skills through a logical and systematic process. Students feel deeper learning and are confident in compiling writing ideas. Apart from the benefits, students also face challenges in reflective writing. Most felt that the winding process made the writing process longer and slower. On the other hand, the learning process becomes more intense because online communication is considered very easy so that the tendency to clarify ideas becomes wider. Paying attention to the academic ability level and making it into a smaller reflective group will help apply the same method in the other assignment.

6. Limitations and Future Research

This research limits some pedagogical aspects found by undergraduate students' writing activity. More in-depth research and practice will enhance the use of reflective writing methods in other appropriate assignments. Instructors, teachers, and lecturers are expected to use similar adaptative methods because they are proven to provide benefits and are assumed to provide students with learning satisfaction during online learning. In addition, broader practice will also encourage students to become familiar with reflective practice across courses and assignments. This research can contribute to marking the first steps for future reflective learning practice.

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