The Effect of Structured Journals on Reflection Levels: With or Without Question Prompts?

Canan Cengiz
Trabzon University, Trabzon, Turkey, cccanancengiz@gmail.com

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Trabzon University, Turkey

Abstract: The aim of this study was to determine the effect of question prompts on the process of journal writing by comparing unstructured and structured journals from pre-service teachers in the context of a Teaching Practicum course. Four early childhood pre-service teachers in their final year of undergraduate study constituted the case of this study. The unstructured and structured journals they kept in this process were compared in terms of content and reflection levels, and a questionnaire was utilized to determine their views. The study showed that when compared to unstructured writing, the use of question prompts assisted the pre-service teachers in achieving an advanced level of reflection in their journal writing.

Keywords*:* reflective thinking, reflective journal, structured journal, unstructured journal, question prompt, teaching practicum

Introduction

In pre-service teacher training, one of the most important experiences for teacher candidates is the teaching practicum (Paker, 2008). Because practical knowledge and wisdom are held by the individual and cannot be easily transmitted from one person to another, reading about teaching or observing others in the process is not a substitute experience, and therefore, pre-service teachers require the opportunity to practice in a real-life classroom (Ulvik & Smith, 2011) under the guidance of a mentor.

In the context of a practicum, pre-service teachers make observation visits to training schools, as well as assisting practicing teachers and participating in various educational and extracurricular activities. The performance of the pre-service teacher during the practicum is evaluated separately by both the university supervisor and the practising teacher (MoNE, 2012) in their practicum classroom. These evaluations and the feedback given to the pre-service teachers regarding their performance are crucial for their professional development; however, another important practice that contributes to their development as teachers during their practicum course is reflecting on their own teaching (Koç & Yıldız, 2012). The process of reflection supports retention and adds to their store of professional knowledge (Griffiths, 2000). In providing an important development opportunity for both professionals and students (Bolton, 2001), reflection has been broadly defined as starting from the introspection an individual performs about himself or herself, including critical dialogue with other people. In terms of teaching, reflective practice refers to the process of thinking carefully about an experience in order to remember it, to ascribe meaning to the experience, and to account for the experience in making plans for new experiences to be carried out in the future (Finlay, 2008). Through reflective practice, pre-service teachers have the opportunity to develop a broader perspective about teaching (Davis, 2006). As such, training pre-service teachers in

terms of reflective skills is critical with respect to the development of their personal and professional capabilities (Griffiths, 2000).

One instrument that has proven beneficial in promoting reflective practice is the reflective journal (Moon, 2007), which serves not only as a means for introspection, but also as evidence of the individual's thought process (Cengiz & Karataş, 2016). As the act of writing encourages the writer to consider the experience as an outsider and evaluate it more objectively (Pavlovich, 2007), the journal-writing process allows students to evaluate their own thoughts and question what to do in order to avoid failure. In this manner, journals ensure active participation in the learning process, as well as increasing the quality of learning and improving problem-solving skills (Watson, 2010).

Journals allow individuals to consider an event or a situation and to record their thoughts. When they bring forth a combination of observations, emotions, thoughts and values, journals go beyond a simple narrative of facts, becoming "reflective journals" (Hubbs & Brand, 2005; Malthouse & Roffey-Barentsen, 2013). In this regard, numerous researchers have classified reflective writing in terms of the depth of the reflection they contain (Boud, Keogh & Walker, 1985; Davis, 2006; Hatton & Smith, 1995; Mezirow, 1981; Moon, 2007; Valli, 1997).

While the numbers of levels or the names given to the categories are different in each case, the reasoning behind the categorization is common. For instance, a text that includes little to no reflection and simply describes the content of an event encountered by the writer without analysis is referred to as descriptive writing. On the other hand, reflective writing can be distinguished from descriptive writing in that it comprises a more thorough thinking product, where the writer steps back from a chosen event, establishes cause and effect relationships between events, identifies emotions and investigates the thoughts that underlie emotions and learning (Moon, 2009; Hatton & Smith, 1995). Moreover, reflective writing is viewed as a pedagogical strategy that can increase critical thinking (Han, Li, Sin, & Sin, 2018). At more advanced levels, where writers construct deeper meaning from their experiences, this process is often referred to as critical reflection by researchers. Writers engage in thinking more critically about an event, looking at it from different perspectives, and discussing issues such as personal biases and their impact on the decision-making process. In addition, they recognize that their ideas may change over time. Thus, based on the learning that takes place while engaging in this process, the writer makes action plans for future practice (Hatton & Smith, 1995; Moon 2009; Plack, Driscoll, Marquez, Cuppernull, Maring, & Greenberg, 2007).

While journals are recognized as useful instruments for reflective writing, there are issues that may arise during the application. A frequently encountered problem in students' reflective writing is that, rather than providing a critical evaluation of an event and presenting a new point of view, reflections often consist only of a "description" of the practice (Cengiz, Karataş, & Yadigaroğlu, 2014; Leijen et al., 2014). In this regard, students are often simply handed a journal and asked to write about their practical experiences. Due to lack of information and lack of structure, students often do not understand the purpose of the process (Mills, 2008).

In this sense, lack of clear understanding of the purpose for keeping journals inhibits reflection and limits their effectiveness (O'Connell & Dyment, 2013). In order to ~~avoid this issue and~~ ensure that students write deeper and more educationally meaningful reflections, scholars such as Aronson (2011) suggest the use of structured approaches, as providing guidance during the journal keeping process may support students in becoming more reflective (Boud & Walker, 1998; Aronson, 2011). In a structured approach of reflective journal writing, question prompts may be used in order to guide the writing process by assisting the writer to begin thinking reflectively and taking their reflections to a more

advanced level (Aronson, 2011; Moon, 2007). Well-posed questions would also motivate reluctant individuals to begin a reflective activity before they realize that they are fulfilling the requirement of journal writing (Moon, 2007). A number of studies in which pre-service teachers were asked to make written reflections have found that most writing was not sufficiently reflective (Arslan, 2017; El-Dib, 2007; Şahin, 2009; Yeşilbursa, 2011). An examination of these studies reveals that the journal entries were prepared in an unstructured format. On the other hand, some studies demonstrated that one of the main factors that affect reflection quality positively is question prompts (Chen, Wei, Wu & Uden, 2009; Han, Li, Sin & Sin; Inaty, 2015; Kori, Maeots & Pedaste, 2014).

The aim of this study is to investigate how question prompts affect the journaling process, the content of the journals and the quality of the reflections in the journals. With this goal in mind, the study attempted to answer the following questions.

1. What are the views of pre-service teachers regarding keeping structured journals?
2. Did the subjects that the pre-service teachers addressed in the structured journals differ from those found in the unstructured journals?
3. How does the type of journal being kept (structured vs. unstructured) affect pre-service teachers' levels of reflection?

Method

A qualitative case study design was applied in carrying out this study. Case studies involve an examination of an individual, an institution, a society or a multi-state in order to answer specific research questions (Gillham, 2000). According to this approach, a case applies to a very limited number of individuals (Zainal, 2007). Four senior pre-service early childhood teachers constitute the case of this study, which is an example of Stake's (1995) instrumental case study in that its purpose is to investigate the effects of question prompts compared to unstructured journals kept within the framework of teaching practicum classes. Thus, examining this effect is more important than the case itself, which means that the case of the research plays a supporting role in this study and is of secondary importance (Grandy, 2010; Stake, 1995). The key feature of case studies is that they investigate evidence from different sources (Gillham, 2000). In this sense, the data collection instruments – the reflective journals and questionnaires – provided the researcher with the opportunity to examine the case as a whole.

Setting and Participants

In Turkish educational system the compulsory education process begins at the primary level at the age of six years. Early childhood education, encompassing nursery and kindergarten programs, is also available for pre-school aged children. In this study, the pre-service teachers worked with children in the kindergarten program. The kindergarten program in Turkey features a framework designed to support the development of children from 36-72 months of age in all areas. In the past, preschool education was not required. However, as of the 2020-2021 academic years, it has become compulsory for children in the age group of 5 years (URL-1; URL-2).

The study was conducted with 12 fourth-year female pre-service teachers studying in the department of ECE at a Turkish university in the fall semester of the 2017-2018 academic years within the context of a teaching practicum course. The four-year college-level training

program includes content-specific courses, in addition to general pedagogy. In this framework, although reflective thinking is considered as an important skill for teachers, no course was specifically designated to teach reflective thinking. Practicum course, which is taken by students in the final year of study, is divided into Teaching Practice 1 in the fall semester and Teaching Practice 2 in the spring semester. Teaching Practice 1 is especially important, because it contains the first observations and experiences of pre-service teachers in an authentic learning environment. During the course, pre-service teachers have various assignments. Among these tasks, reflective journals play a special role in terms of enabling pre-service teachers to evaluate their own teaching, their observations and their subsequent practices. The pre-service teachers had not kept any reflective journals before the study.

For the purposes of this study, four of the participants were selected on the basis of their GPA in order to represent various levels of academic performance. The overall academic grade point average of the twelve pre-service teachers was 3.10 out of 4.00. Accordingly, four students were selected as follows: one with a below-average grade, one with the average grade, one with a slightly above-average grade, and one with a grade high above the average for the class.

The pre-service teachers were told that only the researcher would read and analyse that their reflective journals and listen to the audio recordings of the interviews. They were also informed that their names would be kept confidential and that each pre-service teacher would be referenced by a code name in the reporting.

The Researchers' Role

Throughout the semester researcher observed the 12 pre-service teachers in their practice at the training school as a supervisor. Every week, the researcher met with all of the pre-service teachers at the faculty and talked about the situations they faced in the training process. Each week, she observed two of the pre-service teachers in the practice classrooms and then met with them in person to provide feedback.

At the end of the semester, the pre-service teachers received a score out of 100 possible points from the teaching practicum course. Thirty percent of this grade was given by the university supervisor and the remaining 70% of the grade was given by the practicing teacher.

Data Collection

The data for this study were collected through two sources: (1) journals kept by the pre-service early childhood teachers and (2) a questionnaire consisting of open-ended questions that were prepared to reveal the views of pre-service teachers regarding the process of journal keeping. The journal-keeping activity was also included as a minor portion of the evaluation criteria. The pre-service teachers kept their journals for a total of 11 weeks as part of the 12-week course, during which the participants were required to be in a pre-school for one full day (six class hours) each week. For nine weeks of the teaching practicum, the journals were unstructured. Then, in the tenth and eleventh weeks, six question prompts were given to guide them in their writing. The question prompts were developed based on the Pathwise Classroom Observation System as described by Welsch and Devlin (2007). Pathwise Classroom Observation System is an assessment tool to evaluate the classroom performance of pre-service teachers and first-year teachers (Educational Testing Service, 2002). In this study the question prompts were adapted to the ECE program (see appendix 1).

Since the aim of this study was to determine how the question prompts affected the process of journal keeping, it was found suitable to compare entries from one unstructured and one structured journal written by the pre-service teachers. With this aim, the entries from the ninth week, which were the final unstructured entries, and the entries from the eleventh week, which were the final structured entries, were used as the data collection tools for this study. The reason for selecting the final unstructured and structured entries to collect the data was that these were considered more appropriate in consequence of the participants having received written feedback during the journal keeping process. Moreover, to eliminate the impact of the experience gained over time on keeping the journals, more recently written entries were selected for analysis.

As an additional means to collect data for the study, a questionnaire consisting of 15 open-ended items was prepared by the researcher. The questionnaire was designed so that the pre-service teachers would compare the unstructured and structured journals based on their experiences. A pilot study was conducted with two pre-service teachers in order to check whether the questionnaire items were understandable and matched with the purpose of the study. Based on the responses of the pilot study the questionnaire items were revised, and the instrument was then examined by an expert in education for feedback and further revision and it was finalized.

Two of the questionnaire items were as follows:
1. Do structured journals have any disadvantages over unstructured journals? If your answer is yes, please identify them.
2. What type of journals do you consider have you think more in detail while writing: unstructured or structured journals? Please, explain the reason for your answer.

The questionnaire was administered to all pre-service teachers (N=12) who were enrolled in the course. The pre-service teachers were asked to answer the questions outside the school in a comfortable and non-time-constrained environment. Rich descriptions from the data collected by the questionnaire will be presented extensively in another study. However, within the scope of the current study, a portion of the data gathered from the answers of the four participants to the questionnaire is presented to support the data gathered from the reflective journals.

Process

Within the framework of this study, the pre-service teachers maintained their journals for 11 weeks. For the first nine weeks, their writing was unstructured. The journals were reviewed every week by the university supervisor, and the pre-service teachers were provided with written feedback. In addition, they met with their supervisor each week to discuss their experiences in their practicum school. During this period, they were not instructed directly on reflection or reflective practice. However, in the first weekly meeting, the supervisor emphasized to the students that rather than just telling what happened during their practice teaching, the purpose of writing the journals was to get them to think about their experiences, determine their strengths and weaknesses, and accordingly, to formulate solutions to improve their teaching.

Later, for the two final journal entries, the pre-service teachers were given six questions to answer (see appendix 1). During the meeting in which the pre-service teachers were given the questions, each prompt was discussed; the supervisor explained briefly what was expected, and the pre-service teachers were asked to indicate whether there was anything that they did not comprehend. The pre-service teachers then wrote the two final journal entries by providing responses to the question prompts. The final unstructured journal entries

(for week nine) and the final structured entries (consisting of answers to the question prompts for week eleven) constituted one of the data sources of this study. Two weeks after the pre-service teachers had written their final journal entries, they were given the questionnaire consisting of 15 open-ended questions concerning their opinions on keeping the journals. They were asked to provide written responses to the questions.

Analysis of the Data

The data sources for this study consisting of the journal entries from the pre-service teachers and the questionnaire responses were subjected to content analysis.

The pre-service teachers were expected to reflect on their teaching by reflecting in their journals after each of their teaching performances at their practicum school. In the structured entries, they provided their reflections by responding to the question prompts, while the unstructured journals were written without specific prompts. However, the researcher believed that the question prompts used in this study were sufficient for framing the content of both the structured and the unstructured journals. This was because the researcher believed that the answers for the question prompts also covered the main subjects that could be found in a well-prepared unstructured journal. As such, the questions guided the pre-service teacher in determining the strengths and weaknesses of her teaching and what she could do differently, as well as to make plan for her next teaching. Accordingly, the pre-service teachers' responses from both the unstructured and the structured journals were sorted according to the question prompts as a means to compare them in terms of their content and reflectivity. In this process, because the pre-service teachers had not responded to the prompts in their unstructured entries directly, these entries were matched to the question prompts that were most relevant to each response. On the other hand, in their structured journals, the participants wrote their answers under each question prompt. These entries were read, and each response to each question prompt was evaluated in terms of whether it addressed any other question prompt. If that was the case, the statement was sorted according to the related question. Some of the statements in both the unstructured and the structured journals were found not to answer any of the six question prompts that were adapted from Welsch and Devlin's (2007) study, as the pre-service teachers had commented on subjects beyond the context of the questions. For those comments, two additional questions were formulated (see appendix 1), and the comments were organized accordingly. As a result of this process, the pre-service teachers' responses from both journals were matched with eight questions, and the data were organized for deeper analysis.

The responses to each of the questions were then subjected to content analysis, and each related answer for each question prompt was sorted into the appropriate category. Moreover, each response was evaluated as being either descriptive or reflective. Statements that consisted mainly of descriptions of occurrences in the practice classrooms were classified in the "descriptive" category, and those that were mostly reflective were classified in the "reflective" category. During this process, Davis's (2006) definition of productive versus unproductive reflective statements was taken as a basis. Namely, unproductive reflection is primarily descriptive and includes little analysis; and rather than associating ideas logically, they are simply mentioned. On the other hand, in productive reflection, the reasons for decisions are explained, claims are presented with evidence, alternatives are generated, assumptions are questioned, results of educational decisions are determined, and teaching is evaluated. Accordingly, in this study, writings that constituted productive reflection were classified as reflective and unproductive writings were classified as descriptive.

These two different analyses were conducted simultaneously. In other words, when a given category was established, consideration was given to whether the statements under this category were mainly reflective or mainly descriptive. The pre-service teachers' answers to the questionnaire items were also subjected to content analysis, codes and themes were determined accordingly. To increase the internal reliability, analysis process was examined by another expert in education, and consistency between the categories, themes and codes and the pre-service teachers' responses was also verified.

Findings

In this section, the findings obtained from the analysis of the pre-service teachers' journals and the answers they gave to the questionnaire items are presented.

The responses that qualified as answers to the first question were examined under two categories: "description of learning" and "explanation of learning" (see Table 1).

Description of Learning

In the writings that belonged to this category, the respondent stated the extent to which the children in her practicum class learned the skills and knowledge targeted by the lesson in a general way.

Explanation of Learning

Statements in which the respondents explained their opinions regarding the extent to which the children learned the knowledge and skills targeted in the related week by presenting specific examples (e.g., attitudes, behaviours and participation of the students) were classified in the "explanation of learning" category.

When the unstructured journals of all four pre-service teachers were examined, no statements were found in Selin and Aylin's writing that qualified as an answer to the first question prompt, as indicated in Table 1. However, in the journals collected from Pelin and Tülin, some statements could be classified in the "description of learning" category, such as Tülin's comment that "*in general, the students succeeded in writing the number* (number 5)."

When the structured journals were examined, it was observed that all four of the pre-service teachers had responded to this question. The response given by Selin was placed in the "description of learning" category, while the related statements from Aylin, Pelin and Tülin were assigned to the "explanation of learning" category. Pelin's journal entry in response to the first question prompt is an example of the statements that were classified in the "explanation of learning" category:

> *The children learnt very well what I intended to teach. [For example], the answer "365" was given to the question, "what is a year?." This knowledge was beyond them. [Also,] when I told them that the year 2017 is over and the new year 2018 is waiting for us, they told me about what they have done during the year and what could happen in another year. They said that they won't come to this school next year, because when a year passes, they will be older, and they will go to primary school. These answers surprised me a lot. I see these as an upgrade in development.*

The answers they gave to the second question were assigned to a single category entitled "explanation of the efficacy of practice" (see Table 1).

Explanation of the Efficacy of Practice

Under this category, the responses from the pre-service teachers consisted of explanations of the strengths of the activities they performed. When both the unstructured and the structured journals were examined, it was determined that all of the statements they provided qualified as answers to this question. To illustrate, the statements from Selin that served as responses to this question in her structured journal is presented below:

In general, children love moving. They generally get bored of desk-bound activities. For this reason, by planning an activity that included movement, I think I ensured that they comprehended better and actively participated in the activities. How do I know this?... Because by statements like, "let's play again," the children revealed that they enjoyed the activity, and their feedback regarding the activities was positive. They helped me make the subjects comprehensible to the children.

The responses to the third question prompt, were classified under three categories: (1) "description of the situation and the solution," (2) "description and discussion of the situation" and (3) "description of the situation and generation of a solution" (see Table 1).

Description of the Situation and the Solution

Statements in which the pre-service teacher described a problem she experienced in which she proposed a solution that is generally known and did not require deeper thinking, were assigned to the category "Description of the situation and the solution."

Description and Discussion of the Situation

Statements in which the pre-service teacher described a problem she experienced and discussed possible solutions but failed to generate a clear means to solve the problem were assigned to the category "description and discussion of the situation."

Description of the Situation and Generation of a Solution

If the pre-service teacher described the problem she experienced and generated a specific solution to the problem, the statement was classified in the "description of the situation and generation of a solution" category.

With respect to this question prompt, it was determined that neither Aylin nor Tülin produced a statement in their unstructured journals that qualified as a suitable response, whereas Selin and Pelin did respond to the question in their unstructured journal entries. Selin, for instance, mentioned a problem that she had experienced during her teaching: "*I was going to use a blue rubbish bag for my activity in order not to make the classroom too wet, but because I didn't think of it, my activity was a little bit wet. I will try to be more careful about these matters from now on.*" Her statement was classified in the "description of the situation and the solution" category.

On the other hand, in the structured journals, it was observed that all of the pre-service teachers answered this question. While Selin's statement was classified in the "describing and discussing the situation" category, the statements from Aylin, Pelin and Tülin's were assigned to the "describing the situation and generating a solution" category. In her journal, Pelin answered the question as follows:

> *If I had the chance to go back, I think I would easily use the same method. It wasn't difficult to achieve the learning outcomes. A lot of zone-of-development supported concepts were taught. Maybe I could have increased the number of clues and ensured more children joining me in the joy of finding a clue. The students sometimes pushed and shoved each other because of the competition. I could have avoided this by increasing the number of clues.*

The responses given to the fourth question were classified under two categories: "description of the plan" and "explanation of the plan" (see Table 1).

Description of the Plan

If a pre-service teacher reported the subjects or activity types she was considering for a future lesson, the response was sorted in the "description of the plan" category.

Explanation of the Plan

If a pre-service teacher explained the topic, the method she would employ or the activity she would carry out in future lessons, providing a reason for her choice, her statement was sorted in the "explanation of the plan" category.

In the unstructured journals, no statements were found from any of the pre-service teachers that qualified as an answer to this question. On the other hand, in the structured journals, it was found that all four of the respondents provided an answer to this question. In this regard, while Selin's response was classified in the category "description of the plan," the responses from Aylin, Pelin and Tülin were all indicative of the "explanation of the plan" category. Pelin responded as follows:

> *Considering what happened today, in my next activity that I will plan, I will pay more attention to the evaluation part. This is because that part gives me the most information on my teaching. This week, I asked questions according to the program. However, in evaluation, I prefer to try using rather different techniques. This week, I fell into repetition. I will think of a method that I haven't used before.*

The responses to the fifth question prompt were sorted under two categories: "description of the performance of the group/child" and "explanation of the performance of the group/child" (see Table 1).

Description of the Performance of the Group/Child

If the performance of a group/child was described in a general way, the related responses were sorted in the "description of the performance of the group/child" category.

Explanation of the Performance of the Group/Child

If certain features or specific examples were presented in order to explain the performance of a group/child, the related statements were sorted in the "explanation of the performance of the group/child" category.

An examination of the unstructured journals revealed that none of the pre-service teachers provided responses that qualified as an answer to this question.

On the other hand, all four of the pre-service teachers provided a response to the fifth question prompt in the structured journals. As with the previous question, the related response from Selin was sorted in the "description of the performance of the group/child" category, while the responses from Aylin, Pelin and Tülin were classified in the "explanation of the performance of the group/child" category. Aylin responded as follows:

> *Before conducting the experiment, when he saw the bonbons, one of the children said that he had conducted the experiment at home with his family… He knew about the experiment because he had already done it previously. After the experiment, he said, "there is dye in them, and their dye is leaking." The fact that he does things like that with his family made me happy. Another child gave different examples when I asked him to give examples of healthy and unhealthy food. He said "soup, milk, compote, and to be strong, leeks." The fact that he gave different examples, and that he participated in the lesson and gave correct answers to all the questions during the activity made me think that he is [a] good [child].*

The responses given by the pre-service teachers to the sixth question prompt were sorted under five categories: (1) "description of the performance of the group/child," (2) "description of what was done in this situation," (3) "explanation of the performance of the group/child," (4) "explanation of the reasons for this situation" and (5) "generation of solutions for this situation" (see Table 1).

Description of the Performance of the Group/Child

General statements regarding the performance of an individual child or a group of children were classified
in the category, "Description of the performance of the group/child."

Description of what was done in this Situation

Statements regarding what was done to address the challenges a child experienced or problems he/she created were classified in the "Description of what was done in this situation" category.

Explanation of the Performance of the Group/Child

When certain features or specific examples were presented in order to explain an individual's or a group of children' performance, the related statements were classified in the "Explanation of the performance of the group/child" category.

Explanation of the Reasons for a Situation

Statements relating to reasons for a challenge experienced by a child were classified in the "Explanation of the reason for a situation" category.

Generation of Solutions for a Situation

Solutions offered for challenges or problems experienced by a child were classified in the "Generation of solutions for a situation" category.

When the pre-service teachers' unstructured journals were examined, it was seen that only Pelin did not have any notes that are qualified as an answer to this question. Among the other pre-service teachers, the responses of Selin and Tülin were categorized in the "Description of the performance of the group/child" and "Description of what was done in a situation" category. Furthermore, Aylin's responses were categorized as "Explanation of the performance of the group/child," "Explanation of the reason for a situation" and "Description of what was done in a situation." On the other hand, when the pre-service teachers' structured journals were examined it is observed that all of them answered this question and that their answers mainly show reflective features.

Tülin's answer to the sixth question in her unstructured journal stated: "*In general, the children succeeded in writing the number correctly. I tried to help the ones that couldn't write it by giving the instructions again or drawing the number with them.*"

The same pre-service teacher, Tülin, responded to the sixth question in her structured journal according to the question prompt:

> *Asaf and Yusuf had difficulties in listening to the lesson. Since they are energetic and vibrant children, conducting experiments and painting bored and distracted them. [On the other hand], apples turning dark excited their attention, and they obeyed the instructions and participated actively in teeth-brushing, but they had problems with other transitions. In order to ensure their achievement of the learning objectives for my next activity, I will try to support them in being active throughout the lesson by combining science activities with games and making them discharge their energy.*

Tülin "explained the performance of the group/children" by discussing the children who were distracted during certain activities; she also "described the reason for this situation" by explaining that they had energetic and vibrant personalities. Then, noting that she would take these children' characteristics into consideration in upcoming lessons, she "generated solutions for the situation."

When the pre-service teachers' journals were examined, it was determined that only one of the pre-service teachers, Pelin, had shared her experiences about her learning process as a future educator in her journals in response to the seventh question. Her statements were sorted in the category of "describing awareness" (see Table 1).

Describing Awareness

The statements of the pre-service teachers regarding their own performance during the education process and what they had learned as educators were categorized as "describing awareness."

Pelin wrote in her unstructured journal that "*During this process, I saw that I am [getting] better at managing. I saw that I could be more efficient in timing; I could have been more careful about timing.*"

When the pre-service teachers' journals were examined, it was determined that some of the participants wrote about their emotions during the educational process. The related statements were categorized under the eighth question prompt, and the answers to this question were placed under the "Explanation of emotions" category (see Table 1).

Explanation of Emotions

Statements expressing emotions such as happiness, surprise and anxiety were assigned to the "Explanation of emotions" category.

When the unstructured journals were examined, it was observed that only Aylin and Pelin mentioned their emotions during the educational process, but in their structured journals, Selin, Aylin and Pelin all included statements regarding their emotions. In her unstructured journal, Aylin expressed that *"I had difficulties in classroom management, and the children were distracted like they had never been before. Things that normally don't happen happened. One of the children cried just because his/her friend threw the napkins she/he rolled on the floor. I was shocked when I saw the child."*

Question 1			Unstructured				Structured			
	Reflection Status	Category	Selin	Aylin	Tülin	Pelin	Selin	Aylin	Tülin	Pelin
	Descriptive	Description of learning	-	-	+	+	+			
	Reflective	Explanation of learning	-	-				+	+	+
Question 2	Reflective	Explanation of the efficiency of the practice	+	+	+	+	+	+	+	+
Question 3	Descriptive	Description of the situation and the solution	+	-	-	+				
	Reflective	Description and discussion of the situation		-	-		+			
		Description of the situation and generating solutions		-	-			+	+	+
Question 4	Descriptive	Description of the plan	-	-	-	-	+			
	Reflective	Explanation of the plan	-	-	-	-		+	+	+
Question 5	Descriptive	Description of the performance of the group/child	-	-	-	-	+			
	Reflective	Explanation of the performance of the group/child	-	-	-	-		+	+	+
Question 6	Descriptive	Description of the performance of the group/child	+		+	-	+			
		Description of what was done in this situation	+	+	+	-		+		
	Reflective	Explanation of the performance of the group/child		+		-		+	+	+
		Explanation of the reason for this situation		+		-			+	
		Generation of solutions for this situation					-	+	+	+
Question 7	Descriptive	Description of awareness	-	-	-	+	-	-	-	+
Question 8	Reflective	Explanation of emotions	-	+	-	+	+	+	-	+

Table 1: Answers to the question prompts

The (-) sign on Table 1 indicates that the pre-service teacher did not write a statement that qualified as an answer to the question prompt in their journal. The (+) sign on Table 1 indicates that there was a statement that could be sorted in the related category in the pre-service teacher's journal.

In Table 2, the total number of statements in the unstructured and structured journals of each pre-service teacher, the total number of reflective statements, and the percentage of reflective statements are given. As can be seen from the data, the pre-service teachers' structured journals contained a greater number of overall statements than their unstructured journals; moreover, their structured journals contained more reflective statements than their unstructured journals.

	Unstructured Journals			Structured Journals		
Pre-Service teacher	Total number of statements	Number of reflective statements	Percentages of reflective statements	Total number of statements	Number of reflective statements	Percentages of reflective statements
Selin	4	1	25%	8	4	50%
Aylin	5	4	80%	8	7	88%
Tülin	4	1	25%	8	8	100%
Pelin	5	2	40%	9	8	89%

Table 2: The percentages of reflective statements in the unstructured and structured journals

Following the implementation, the participants were asked to compare the structured journals to the unstructured journals. Their views on the structured journals were analysed and classified as *advantages* and *disadvantages* (see Table 3). As advantages of the structured journals, the pre-service teachers noted several features; these included ensuring more detailed self-observation, requiring deeper thinking when writing, ensuring more organized writing and motivating them to start writing. Moreover, Selin, Aylin and Tülin reported that when they were working on the structured journals, they observed their practice at their training school in more detail. As Tülin expressed, "*I conducted more detailed analysis in the structured journals, because necessarily (*during my activities) *I was considering the questions, and I did more observation in order to give suitable answers.*" Additionally, all of the pre-service teachers stated that writing in the structured journals required deeper thinking. As Pelin put it, *"in the structured journals, one needs to think and focus more [deeply]; I thought three times as much to give the most suitable answer to the question."* Furthermore, Tülin and Pelin both indicated that the structured journals ensured more organized writing; in Tülin's words "(in the structured journals), *I tried to write in a more organized way…*" Pelin also reported that the structured journals helped her to begin the writing process: "*...[the] structured journal offered us a framework; I had a [better] idea about where to start. It gave me the opportunity to systematically organize my thoughts; most of the time, I could express what I want to say more effectively.*"

Theme	Code	Pre-service teachers			
		Selin	Aylin	Tülin	Pelin
Advantages of structured journals	Ensuring more detailed self-observation	X	X	X	
	Requiring deeper thinking	X	X	X	X
	Ensuring more organized writing			X	X
	Facilitating the initiation of writing				X
Disadvantages of structured journals	More difficult to prepare	X			X
	More time consuming	X		X	X
	Limiting the point	X	X		X
	The answers to the questions might be similar		X	X	
	Too many questions				X

Table 3: The Participants' Views of the Structured and Unstructured Journals

On the other hand, although the pre-service teachers demonstrated a positive attitude towards keeping structured journals at the beginning, after the implementation, they pointed out some disadvantages, including issues such as being more difficult to prepare, more time consuming, and more limiting in what they could express. Additionally, they found that the answers to some questions might be similar and that there were too many questions. Selin and Pelin, for instance, expressed that they had greater difficulties in writing in the structured journals; as Selin pointed out, "(in the structured journals), *I felt like what I wrote would never be enough, and I pushed myself. I analysed my thoughts."* Moreover, Selin, Tülin and Pelin all agreed that the structured journals were more time consuming, as with Selin's comment that "(in the unstructured journal), the *implementation was easier and faster; I mean it was economical!"* Selin, Aylin and Pelin additionally noted that the structured journals limited them from writing about some topics that they wanted to discuss. As Aylin said, *"In the unstructured journal, I wrote without being limited. Otherwise,* (in the structured journals) *I sometimes could not express what I wanted to express."* Aylin and Tülin also indicated that the answers to some of the question prompts were similar in her comment that *"because the questions in the structured journal were similar, I got confused about which answer to give which question. For example, the first question and the second question… I would give almost the same answer to both of them."* Moreover, Pelin stated that there were too many questions in the structured journal.

Discussion

The aim of this study was to determine how employing question prompts affects the process of journal writing within the framework of a Teaching Practicum course for pre-service teachers. With this aim in mind, the discussion section of this study is presented under two sub-headings: the content of the journals and the reflection level of the journals.

The Content of the Journals

In this section, the content of the unstructured journals obtained from the pre-service teachers is presented by comparing it with the content of the structured entries. In this sense, the structured entries were largely composed of answers to the question prompts. All of the respondents answered each question prompt in their structured journals, while in the unstructured journals, only some of their responses qualified as answers to the question prompts. Furthermore, both the structured and unstructured journals contained statements that were beyond the scope of the question prompts. Therefore, in order to determine whether both journal types contained such statements, two additional question prompts were formulated to encompass these responses.

Afterward, both sets of journals were examined to determine whether statements that qualified as answers to the new questions were included in both the structured and the unstructured entries, and then comparisons were made according to the different journal types. In doing so, it was established that all of the pre-service teachers included writings that qualified as responses to the second question in their unstructured entries. The fact that all four respondents provided statements regarding the second question prompt (In what ways were your teaching methods/activities effective? How do you know?) in their writing shows that they tended to emphasize the aspects of their teaching methods and activities that were effective. In support of this observation, Boud (2001) pointed out that when we know that other people will read what we write, we shape our writing in consideration of the person

who will read it. From this situation, it can be inferred that the pre-service teachers in this case preferred to share information regarding the stronger aspects of their teaching with their instructor.

In terms of the fourth question prompt, "Based on what happened today, what would you plan to do next with this class?" none of the pre-service teachers provided a qualified response. Making new decisions regarding teaching based on experiences is a crucial part of reflective practice; the fact that none of the responses qualified as answers to this question can be explained by a lack of instruction regarding reflective writing (Cengiz, Ayas & Çimer, 2011; Malthouse & Roffey-Barentsen, 2013; Sağlam Arslan, Ünal, Karataş & Cengiz, 2018). Moreover, the same situation occurred with reference to the fifth question prompt, "Identify an individual or group of children who did well in today's lesson. How do you account for this individual's or groups' performance?" In addition, it was established that only some of the pre-service teachers included responses that qualified as answers to the first, third and sixth question prompts in their unstructured journals.

Although none of the question prompts asked the pre-service teachers to comment on the experiences they gained or the emotions they felt, some of the respondents commented on these issues in both the structured and the unstructured journals. In this respect, Leijen et al. (2014) examined pre-service teachers' views on guided reflective studies they planned and applied and found that most of them considered that their thoughts about themselves constituted the most important aspect of their experiences. Because the pre-service teachers expressed the view that adding a question regarding their emotions during the lessons to the question prompts would support their reflection, the researchers concluded that, in the first phases of teaching practice, it is difficult for pre-service teachers to reflect beyond their own thoughts and emotions.

In summary, the pre-service teachers who participated in this study did not include topics in their unstructured journals that were not also found in their structured journals. On the contrary, in responding to the question prompts, they discussed issues in their structured journals that were not included in their unstructured journals. With this in mind, it can be inferred that the structured journals were richer in content than the unstructured journals. Additionally, the statements of the pre-service teachers that went beyond the scope of the question prompts indicate a preference for referring to themselves and their feelings in their journal writing.

The Reflection Level of the Journals

When the answers in both journals were compared in terms of their reflection level, it was observed that most of the statements in the unstructured journals were descriptive, while most of the statements in the structured journals were reflective. This can be explained by the capacity of question prompts to support pre-service teachers in advanced reflection, as opposed to lower levels of reflection in unstructured writing (Moon, 2007). Question prompts provide cognitively complex ways learners think and feel about and make connections in experience (Wo & Looi, 2012). They improve the quality of reflection by facilitating the learning process and offering both cognitive and metacognitive support to writers (Chen, Wei, Wu & Uden, 2009; Ge & Land, 2003; Inaty, 2015; Kori, Maeots & Pedaste, 2014). They enable the learners to observe the meaning they have taken from the experience and investigate the underlying qualities that made the experience significant (Wo & Looi, 2012). The pre-service teachers' opinions on structured journals reported in the questionnaires uphold this interpretation; the respondents in this case expressed that, when they compared

structured journals to unstructured journals, they found it necessary to give more thought to their responses to the question prompts.

On the other hand, when they were asked to compare the unstructured journals to the structured journals, the pre-service teachers reported that preparing the structured journals was more difficult, and they spent more time on them. However, while they found them more challenging, they also stated that they thought in more detail when responding to the question prompts and carried out more detailed self-observations during their practices. Self-observation of their performance assisted them in becoming more aware of their behaviors, evaluating their own development and improving their performance, as with Schunk (2009). In this regard, Zimmerman (2000) indicates that determining the objectives of observation in a specific order and sequence facilitates the self-observation process. In this study, the question prompts may have enabled the pre-service teachers to engage in systematic self-observation by providing a framework concerning the issues that they should give attention in their observations. Furthermore, some of the pre-service teachers who participated in the study indicated that the structured journals were effective for promoting more organized writing, as well as and assisting them in initiating the writing process.

In terms of professional development, reflective journals play a crucial role in supporting professional practice for pre-service teachers. In this regard, studies on the relationship between pre-service teachers' reflections and their teaching performance indicate that reflections are good predictors of teaching performance and that developing teachers' reflective skills contributes to their professional skills (Gipe & Richards, 1992; Köksal & Demirel, 2008; Pultorak & Barnes, 2009). For this reason, improving the effectiveness of reflective practice is important in terms of contributing to the professional development of pre-service teachers. In this regard, the pre-service teachers in this study produced more advanced reflections in their structured journals than the unstructured journals, and their views on the issue support this conclusion. This can be explained by the well-designed question prompts that encouraged them to focus on the issues related to their practice.

Conclusion and Suggestions

When the literature is analysed, it can be seen that the results of the studies on reflective journal-keeping are varied. In some cases, pre-service teachers' journals have been found to contain mainly deep reflective entries; while on the other hand, some researchers have found that journals contain mainly descriptive accounts of events (Dyment & O'Connell, 2011).

In this regard, Malthouse and Roffey-Barentsen (2013) assert that teachers' inability to write productive reflective writing may be due to their lack of understanding about what is expected when they are asked to prepare reflective writing for the first time. This study is carried out with the idea that when pre-service teachers were asked to prepare reflective writings, the guiding questions might help them to better understand what was expected of them.

The aim of the study was to investigate how question prompts affect the journaling process, the content of the journals and the quality of the reflections in the journals. For this purpose, the pre-service teachers' structured and unstructured journals were examined according to their content and reflection levels. In addition, their opinions regarding the two types of journals were elicited.

A comparison of the structured and unstructured journals revealed that the structured journals were broader in terms of content. On the other hand, it was determined that when the pre-service teachers were free to write whatever they wanted, they preferred to talk about the

strengths of their teaching. Moreover, none of them about what they planned to do for the next lesson in their unstructured journals.

Making new action plans after considering actions taken is an important part of reflective thinking. In this regard, the pre-service teachers' neglect of making action plans in their unstructured journals indicated that the content of their writing was weaker when they had not received training on reflection or the journals were not guided by question prompts.

Finally, the pre-service teachers reported that they found preparing structured journals more difficult and time consuming. In addition, they expressed that they needed to think more deeply for the structured journals, as well as to make more detailed self-observations during their teaching. When the two types of journals are compared, data supporting these expressions emerged; namely, the pre-service teachers made deeper reflections in their structured journals.

To sum up this study indicate that employing question prompts for journal writing within the framework of teaching practicum enriches the content of the writing, as well as enabling pre-service teachers to produce more reflective responses. Based on these results, some suggestions regarding the current study, as well as future studies, are presented below:

- Employing question prompts is recommended, especially in cases where students are encountering reflective practices like journal keeping for the first time. Use of question prompts for journals encourage pre-service teachers in more meaningful reflection and contributes to their growth as teaching professionals.
- Similar studies may be carried out in which the opinions of pre-service teachers on reflective journaling are considered, but with certain changes:
  - o In the present study, it was observed that some of the pre-service teachers referred to themselves and their feelings as educators in both their structured and unstructured journals. This was their first practical experience of teaching so it is usual for that to be the dominant concern. Journals for those who experience continuous practicums throughout their course may have different requirements at different stages. Therefore, in order to enable pre-service teachers to express their views on these issues, a related question prompt may be provided for the structured journals.
  - o Some of the pre-service teachers who participated in this study found the structured journals to be time consuming, and some expressed that there were too many question prompts. In order to avoid these criticisms, question prompts that are similar in content may be combined, and pre-service teachers can be given different question prompts in different weeks.
- In this study, written feedback was given on the pre-service teachers' reflective journals. In future studies, pre-service teachers may be supported with verbal feedback from both the supervisor and the practicing teacher and in order to improve their levels of reflection (Cengiz & Karataş, 2014).
- In order to investigate the issue in depth, the present study was conducted as a case, with a limited number of participants. Further studies on this topic may be carried out on a larger scale to minimize the impact of the participants' unique characteristics, as well as the physical and other conditions, that may affect the results, as is the case in any social sciences study carried out with human participants.

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Appendix 1

1. To what extent did the children learn what you intended? How do you know?
2. In what ways were your teaching methods/activities effective? How do you know?
3. If you were going to teach this class again to the same children (if you could go back in time) what would you do differently? What would you do the same? Why?
4. Based on what happened today, what would you plan to do next with this class?
5. Identify an individual or group of children who did well in today's lesson. How do you account for this individual or groups performance?
6. Identify an individual or group of children who had difficulty in today's lesson. What accounted for this individual's or group's performance? How could you help this (these) child(s) achieve the learning goals?
7. "What did you learn about yourself as an educator?"
8. "How did you feel during the education process?"