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## DETERMINING REFLECTIVITY LEVELS OF PROSPECTIVE TEACHERS THROUGH BLOGS

*Research Article*

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### Abstract

In this study, it was aimed to determine the reflective thinking levels of prospective teachers and the change of their reflectivity levels within the teaching practicum process. For this purpose, the blog postings, which written by the prospective teachers at different themes, were analyzed. Within the scope of the study, reflective thinking levels were discussed based on the six different criteria with the following titles: Attending to feeling, sharing personal experience, analysis and meaning-making, depth of reflection, language use and writing quality, use of textual evidence and historical context, and transfer of knowledge. In this study, the document analysis method was used as a data collection technique. The study was carried out with 37 prospective teachers, attending Teaching Practicum in the Department of Computer Education and Instructional Technology (CEIT) of a state university in Ankara, Turkey. Prospective teachers wrote about their teaching experiences throughout teaching practicum on their blogs. Blogs were evaluated with the help of the reflection level rubric, which prepared by the researchers. It was concluded that the lowest reflection level emerged with regard to the use of textual evidence and historical context criteria and that less reflective blogs were, in almost all criteria, with respect to the overall evaluation of the course (Theme-5). In the last section, further results and related recommendations are mentioned.

*Keywords:* reflective thinking, prospective teachers, teaching practicum, blog

### 1. Introduction

Reflection refers to taking the experiences, obtained through observations into a conceptual frame. Dewey (1993) points out that reflection ensures critical thinking on the experiences as well as making sense of observations and that learning consists of reflections, which are carried out based on experiences. Dewey (1993: cited in Kozan, 2007) emphasized the impact of reflection on learning and pointed out that reflection is an active and conscious

cognitive process regarding main ideas. Four criteria, determined by Dewey (1993: cited in Kozaan, 2007) as regards reflective thinking can be described as follows:

1. Reflective thinking is the process of making meaning that transfers an experience to the learner, which requires a deeper understanding regarding/related to other thoughts and experiences of an individual.
2. Reflective thinking is a systematic, careful and well-disciplined way of thinking that has become established with scientific needs.
3. Reflective thinking requires keeping in touch with other individuals in a community.
4. Reflective thinking requires attitudes that appreciate personal and intellectual growth of the others and the individual itself.

Creating learning environments with real life and/or business life, many disciplines prepare individuals for future, the society they live in and the business world today. The students are supposed to reflect the academic information learned into practice and thus reflective thinking skills come to the forefront (Rivers, Richardson & Price, 2014). Since reflective thinking skills include some kind of self-assessment skill, which require an individual to make planning so that the individual could determine and develop his weak and strong aspects in thinking and learning processes in addition to his/her awareness regarding such processes, reflective thinking is of capital importance in terms of the development of anybody, having specialized in a certain field. Furthermore, it is expected that students are well-equipped with skills such as problem-solving, making investigation, questioning, thinking, being aware of what and how they learn in the 21st century. These requirements also bring the importance of reflective thinking into question.

Reflective learning and thus reflective teaching are of capital importance in training individuals, who have reflective thinking skills and that can solve the problems, encountered thereof. Reflective learning is described as the assessment of performed applications, taking lessons from teaching experiences, problem-solving and making professional life meaningful by making use of the knowledge and experiences, acquired for future education (Gür, 2008). Reflective teaching is identified as the creative problem-solving activities and an approach of questioning, which features the feelings of others and that cares about constructivism in teaching (Yorulmaz, 2006). Reflective teaching is based on research and that starts with systematical questioning of experiences. And thus, it continues with active thinking of teachers as regards this process in consideration of the environment and working conditions in learning-teaching process and taking essential decisions therewith (Pollard, et al., 2008). The teacher has a great role and responsibility to apply reflective thinking and bring in these skills. That the teachers provide extensive, accurate, proper and on time feedbacks, especially in written, has a positive impact on students' reflection capacity (Quiton & Smallbone, 2010). The teachers with reflective teaching skills, are those who keep their practices under constant surveillance, that are foresighted, that consider themselves responsible for the personal, educational and emotional needs of the students, that are sensitive to the problems, experienced in this respect and that try to improve themselves and their professional knowledge and skills all the time (Norton, 1994; Ünver, 2003). Reflective teachers evaluate their practices, which are carried out based on a schedule, in line with the data gathered; performs reflections and inquiries regarding their studies and enhances such practices. It is essential that even the teachers, who are able to arrange learning environments likely to gain students with reflective thinking skills, should also have these skills.

Reflective teachers are those, who can analyze teaching condition, that can consider the situation critically and that can ensure their professional development all the time thereby evaluating teaching-learning conditions. In view of Pollard, Anderson, Maddock, Swaffield,

Warin, & Warwick (2008) several basic characteristics of reflective teaching to improve reflective thinking skills of teachers are outlined as follows:

- It requires drawing attention to the objective and results as well as technical sufficiency of the application, it takes shape in a circular process and requires teachers to monitor, evaluate and correct their own practices all the time.
- It requires being sufficient in research methods based on evidence in order to support high standards and continuous development in teaching.
- It requires open-mindedness, responsibility and sincerity.
- It increases continuous learning, communication and cooperation with colleagues in order to ensure professional development.
- It requires the teachers to organize learning and teaching activities in a creative manner.

### **1.1. Evaluating the reflective thinking process**

It is seen that the reflective thinking process is evaluated in various forms in various studies. Choy and Oo (2012) asserted reflective thinking is a precursor to stimulate critical thinking and they identified three categories of reflection: introductory, intermediate and advanced level. These levels indicate how deeply a teacher's reflection of his/her teaching practices. They found that teachers who participated in the research did not deeply reflect the teaching process. The teachers participated in the study were more interested in how they were assessed by their students and superiors, so they were not willing to reflect on their own teaching processes. Jay and Johnson (2002) examined the reflective thinking in three dimensions: descriptive reflection is to describe the matter of reflection, comparative reflection is to reframe the matter for reflection in the light of alternative views, others' perspectives, research, etc., and critical reflection is having considered the implications of the matter, establish a renewed perspective. These dimensions have also shown the complexity of reflective thinking process. For assessing the reflection process of written assignments, Kember, McKay, Sinclair and Wong (2008) stated a four-category scheme: habitual action/non-reflection, understanding, reflection, and critical reflection. The reflection level scheme offers not a precise measurement but guidance in making judgments. Andersen and Matkins (2011) used the same reflection scheme and assessed the quality of prospective teachers' reflections. They also examined the blog usage on prospective teacher's reflective practice. The study revealed lower reflection levels of prospective teachers during observations and higher reflection levels when a prospective teacher analyzing their own performances. Researchers suggested more pedagogical guidance for teaching practicum should be provided by the cooperated teacher.

### **1.2. Reflective practice in prospective teacher education**

School Experience and Teaching Practicum ensure that the prospective teacher, who observe the class environment and teaching activities, think as a teacher and reflect their ideas thanks to reflective thinking. Reflections are of capital importance in that they transfer their experiences and what they experience in the process. Thanks to such reflections, prospective teachers will have the opportunity to transfer their own thoughts and knowledge and combine theory and practice (Dyment & O'Connell, 2011). Reflective thinking skill has an important place in teacher training in that it ensures prospective teachers learn to "think and act as a teacher" with different ways and reflect such. While the prospective teachers acquire reflective thinking skills in this process on the one side, they also experience how learning environments that gain these skills to their prospective students on the other. Several activities can be used in order to make prospective teachers gain reflective thinking skills.

Keeping diary or blogs, taking video records and the portfolios can be given as an example of these activities.

Web 2.0 instruments ensure individuals to transfer their knowledge and thoughts and share them with others. With the communication and cooperation performed in social networks, self-expression and reflective thinking skills of prospective teachers are also improved (Reich, Levinson, & Johnston, 2011). In his study, Wright (2010) reveals that communication at certain intervals in social networks, sharing feelings and reflections reduce isolation feeling and affect reflective thinking skills in a positive manner. Using blogs in teacher training, it is possible to create virtual communities in which prospective teachers get feedback. That these blogs are open to others for reading promotes prospective teachers in terms of writing more effectively (Hernández-Ramos, 2004). Ray and Coulter (2008) have stated that blogs are an authentic example of utilization of technology by the teachers to communicate with each other and share their experiences. Studies indicate that the use of blogs in teaching practice support reflective thinking (Deng & Yuen, 2011; Jones & Ryan, 2014). The blogs help prospective teachers to ask questions regarding learning process, develop hypothesis (Lee, 2008), think in detail about the problems, encountered in classroom environment (Ekiz, 2006) and express themselves as a teacher. Writing an efficient reflective blog is not only related to the fact that a prospective teacher tells what is happening in the learning environment but also to the perspective in the teacher's expression as well as making self-assessment with respect to the events (Andersen & Matkins, 2011; Schön, 1987).

Blogs recover learning process from time and space limitations, and learning continues in any environment where it is possible to access internet. The blogs sustain learning activities outside the classroom in this context. Studies performed in this respect reveal that students also take on the responsibility of learning while using the blogs, express their opinions more conveniently, express themselves better in the blogs, and they are able to improve their learning skills in time thereby performing an active interaction with the onlookers thanks to the comments made for what they write (Jacklinga, Natolia, Siddiquea, & Sciullia, 2014; Kang, Bonk, & Kim, 2011; Meredith, 2010; Yeo & Lee, 2014). It is further possible to develop reflective thinking skills by creating blogs in which students can reflect their own thoughts, performances and roles about a subject learnt in classroom environment or a discussion participated in that respect. Any student can be promoted to realize reflective thinking process through the assessment of their own development processes by every student about the activities, carried out in their own blogs. Taking part actively in learning environments, students obtain new information using their own experiences. Thus, it is ensured that students can make use of what they have learned in new conditions. Such recent knowledge is shared through interactions in the later periods, and reflective thinking skills start to improve once recent interactions are performed. With reflective thinking, which is one of the high-level of thinking skills, learners will have the skills to use the information, solve the problems encountered in this respect and learn by apprehension rather than learning by heart. Teachers and the trainings of the prospective teachers are very important while preparing learning environments to bring students in reflective thinking skills. A teacher with reflective thinking skill can determine the problems likely to arise in learning-teaching process and produce solutions in order to overcome such problems (Shoffner, 2006).

Arrangement of learning environments in a way to introduce prospective teachers with reflective thinking skills in their training process will result in the fact that these teachers will also organize these kinds of learning environments when they, themselves, become a teacher. Keeping diaries, video records, student improvement files and reflective blogs are the most commonly used practices to bring in reflective thinking skills. Reflective blogs in particular ensure improvement of thinking skills and active participation in the process just as they help

students see their own development by monitoring and recording improvement in learning. Preparing activities and arranging learning environments to bring in reflective thinking skills especially in the courses regarding Teaching Practicum will also contribute to the professional competences of prospective teachers just as they are likely to help prospective teachers use their knowledge and skills during practice and solve the problems, encountered in this respect.

When it is considered that Teaching Practicum is a process of gaining and sharing experience, it is concluded based on the opinions of prospective teachers that blogs are a proper instrument for this process. Deng and Yuen (2011) state that prospective teachers making use of blogs express that reading the blogs of their friends make positive contributions to their learning and that they receive emotional support from their friends. Killeavy and Moloney (2010) revealed that recently appointed teachers developed a reflective practice on teaching experiences and that an application community was created in which these teachers receive support from their colleagues thanks to the blogs.

It is essential that first, the teachers should have these qualifications in order that the type of people needed by the societies of the present day could be trained. And the introduction of these qualifications depends on the training received by the teachers before the service. Pre-service training which is the first stage of teacher training, has two components. First of these is the theoretical information required by teaching profession; and the second one is application lessons in which students are enabled to implement theoretical courses learnt in universities. This process, executed in practice schools consists of School Experience and Teaching Practicum. School Experience is a course based on observations and interviews, designed in an attempt to introduce prospective teachers with school environment, students, etc. in general. As for Teacher Training, prospective teachers find the opportunity to implement their skills and professional knowledge, learnt during their training. In this process, students have the opportunity to develop their professional competences, consolidate their knowledge about their fields, evaluate students and plan teaching in the practice schools they are sent to.

Within the context of this study, it is thought that blog application performed in teaching practicum contribute to prospective teachers in reflection of their experiences as well as their learning together by interacting with each other within the process.

### **1.3. Objective of the Study**

In this study, it is aimed to determine the reflective thinking levels of prospective teachers and the change of such levels within the process thereby analyzing the blogs written by the prospective teachers in different themes during a semester. In line with this objective, it was focused on the aspects and depth of reflective thinking, and several suggestions were produced on the use of reflective blogs in teaching practicum. Within the scope of the study, level of reflective thinking is discussed in six different aspects under the following titles; i.e., attending to feeling, sharing personal experience, analysis and meaning-making, depth of reflection, language use and writing quality, use of textual evidence and historical context, and transfer of knowledge.

## **2. Method**

The study was conducted with a case study and the document analysis method was used as data collection techniques. In the case study, one or more than one event or case included in a limited environment, are analyzed, a great variety of data collection techniques are used (Creswell, 2007). The document analysis is one of these techniques. In this study, blog

postings of the prospective teachers were analyzed by the document analysis method and they were evaluated in terms of their reflective thinking levels.

### 2.1. Participants

The study was carried out with 37 prospective teachers attending the Teaching Practicum in the CEIT department of a state university in Turkey. All of the prospective teachers were at the 4th-grade level. They attended classes for 6 hours in the middle schools and high schools within the scope of the course and found the opportunity to make observation and practice. In the faculty, they had 2-hours theoretical lessons and they discussed their observations and practices with the lecturer and each other. They used face to face and blogs for discussion medium.

### 2.2. Instrumentation

*Reflection Level Rubric:* In this study, in order to evaluate the reflective thinking levels of prospective teachers, Reflection Level Rubric (in Appendix) was created. Several rubrics, which were available in the literature and that focus on reflective thinking skills, were reviewed during the creation of the rubric (Burton, 1999; Sparacino, 2006; Wetmore, Boyd, Bowen & Pattillo, 2010; Wald, Borkan, Taylor, Anthony & Reis, 2012). Then, six different criteria in compliance with the context of the research were gathered and were edited for this study. The criteria were as follows; attending to feeling; sharing personal experience, analysis and meaning-making, depth of reflection, language use and writing quality, use of textual evidence and historical context and transfer of knowledge. In order to determine the reflective thinking level, each of the criteria was scored between 0 and 3 using a 4-stage grading key of Kember, McKay, Sinclair, and Wong (2008). According to the grading key, the level of reflective thinking was graded in four ways, being habitual action (0), understanding (1), reflection (2) and critical reflection (3).

*Habitual action* refers to the level in which the individual only writes routine events without reflecting his/her feelings and thoughts (Kember, McKay, Sinclair, & Wong, 2008). In *understanding* level, the individual creates his/her own meaning about the issue. The understanding level is related to deep learning whereas habitual action points out a superficial learning approach (Kember, McKay, Sinclair, & Wong, 2008). While the individual associates the matter with personal experiences in *reflection* level, the individual offers synthesis and a new perspective by reviewing prior learning and the previous results regarding the issue in *critical reflection* level, which is the highest level of reflection (Kember, McKay, Sinclair, & Wong, 2008).

### 2.3. The Research Process

During a term, the prospective teachers made observations at the public schools and performed several practices in which they can experience their teaching skills. At the same time, they took weekly theoretical lessons for 2 hours in the faculty and they were informed about reflective thinking. During the theoretical lessons, prospective teachers were asked to create a blog, called "Teaching Practicum Blog" and they asked to write their own reflections. The blog topics were started in compliance with the themes, determined by the researchers. Prospective teachers had written blogs about the following themes:

Theme-1: How to be a good teacher?

Theme-2: Evaluate the support which you took during the process of Teaching Practicum.

Theme-3: What difficulties, you have been experienced during the process of Teaching Practicum?

Theme-4: What did you learn in Teaching Practicum?

Theme-5: Evaluate the process of Teaching Practicum in general.

The themes were delivered to the participants during the term respectively. Prospective teachers were asked to write about their experiences dealing with these specified themes in the aspects of communication types, classroom management, time management, and assessment practices, which they observed in the school environment. Prospective teachers wrote their blogs attending teaching practicum for a period of 15-weeks. At the end of this period, their blog writings were evaluated through the rubric.

## 2.4. Data Analysis

Blog posts of prospective teachers were examined through the content analysis method. The meanings in the blog writings were tried to reveal and they were matched with the levels of the rubric (Yıldırım & Şimşek, 2016). During the analysis, two of the researchers evaluated all of the blog posts and they rated blogs in accordance with the reflection levels of the rubric. At the end of the evaluation, the correlation between two raters was calculated as .83 level. This score shows the harmony between raters.

## 3. Findings

### 3.1. Reflective thinking level of participants' blog postings

Blog postings about the specified themes were scored in accordance with the rubric criteria. Each of the criteria was scored between 0 and 3 point in terms of reflective thinking level. Accordingly, blog postings have scored between 0 and 18 points in total from 6 criteria. Table 1 shows the frequency of blog postings in terms of themes.

Table 1. Frequency of blog postings according to reflection level

	Non-reflection	Understanding	Reflection	Critical reflection	Total number of Postings	Mean Reflection level	Reflection level name
Theme1	0	13	16	8	37	1,86	Reflection
Theme2	0	6	15	14	35	2,23	Reflection
Theme3	0	0	16	21	37	2,57	Critical reflection
Theme4	0	0	15	16	31	2,52	Critical reflection
Theme5	0	8	13	8	29	2	Reflection

As shown in Table-1, blog postings written in themes are at least *understanding* level. While the average reflectivity score of each theme is calculated, the number of postings at the relevant level is multiplied by the reflectivity level coefficient in the rubric, and the total obtained is divided by the total posting. When the calculated mean reflectivity scores are examined, it is seen that theme 1, theme 2 and theme 5 are in *reflection* level, and theme 3 and theme 4 are in *critical reflection* level. At the last theme, which they are expected to evaluate the process in general; reflectivity level is decreased as well as participation. Below, there are examples from blog postings of three reflection levels:

Theme-1: Reflection Level

*“the teacher should measure the availability of each student when evaluating and, if necessary, students should take intermediate evaluations such as oral and quiz before the exam. In this respect, the attention and interest of the students is increasing more and more*

towards the class. I have encountered many of these examples in my internship school and observed the reactions and behaviors of the students.” (PT1 (PT: Prospective Teacher))

#### Theme-2: Understanding Level

“while observing the guide teacher, we learned how to react to the students , how to attract attention to subject if the distraction occurred during the course and we learned the strategies of teaching. In addition, the scenario solutions we have made within the Teaching Practicum course helped us during observations. We took decisions by putting ourselves in the place of the teachers in the scenario. I can say that many of these scenarios contribute a lot to us” (PT2)

#### Theme-4: Critical Reflection Level

“I have been hanging out many times and things I did not know what to do. I tried to find answers by gaining experience at the same time, as far as I could see from the guidance teacher. For example, I realized that it was wrong for students to help them while they were working in the lab. Students need to learn from the effort, rather than from the easy way. I learned that in such situations I had to intervene less.” (PT3)

#### Theme-4: Critical Reflection Level

“in Teaching Practicum, I have learned many things from the children as much as I have learned from the guide teacher. As I recognized the children, I had an idea of how they learned as I learned their needs, their knowledge, their reactions. I discovered that the method of addressing learners and determine the teaching method according to student's need is important. For example, in the course of ICT, students were watching the teacher's way of computer use very carefully. For this reason, I can say that the demonstration method can be more productive in these students.” (PT4)

#### Theme-4: Reflection Level

“In the course of Information Technologies, it is necessary to adjust the teaching time so as to teach the subject and then to make the activity. It is necessary to have an effective course. Our guide teacher was quite successful in this regard. It is also important not to expose students to too much narration, and to give them time to practice. The guide teacher was often good at scheduling.” (PT5)

#### Theme-5: Understanding Level

“We can say that we found the opportunity to practice in real life with the teaching practicum lesson. In the internship, I had the opportunity to practice many things that I learned theoretically in the school and see my shortcomings” (PT6)

In order to analyse reflective thinking levels of the written blogs, average values were calculated by scoring the criteria in the rubric individually for five themes. Average points of each theme based on the criteria are included in Table 2.

Table 2. *Each theme's point averages of reflective thinking level based on the criteria*

Criteria	Theme 1	Theme 2	Theme 3	Theme 4	Theme 5
Attending to feeling; sharing personal experience	1,6	2,5	2,7	2,6	2,1
Analysis and meaning making	1,8	1,9	2,1	2,5	2,5
Depth of reflection	1,7	2	2,2	2,5	2,3
Language use and writing quality	1,9	2,3	2,3	3	2,9
Use of textual evidence and historical context	1,3	2,1	2,2	2	1,9
Transfer of knowledge	1,8	2	2,1	2,6	2,5

**Attending to feeling; sharing a personal experience:** In this sub-dimension, the participants transfer their feelings and personal experiences about the issue and associate these experiences with what they learnt. While the blogs written under Theme 1 are at the level of reflection in this sub-dimension, they have reached up to the level of critical reflection under Theme 2, Theme 3 and Theme 4. They fell back to the level of reflection again in Theme 5. **Analysis and meaning-making** aspect refer to analysis of the issue in an extensive manner and meaning-making. In this sub-dimension, blog postings reached up to the level of critical reflection in theme 4 and theme 5 whereas such were at the level of reflection in the first three themes. **Depth of reflection** indicates that the posts were understood deeply and that a conscious level of reflection is available. While the blogs written under Theme 1, Theme 2 and Theme 3 are at the level of reflection in this sub-dimension, they have reached up to the level of critical reflection under and Theme 4 and fell back to the level of reflection again in Theme 5. **Language use and writing quality** refer to compliance with spelling rules and the use of a strong language to express thoughts and point of view. While the blogs written in this sub-dimension are at the level of reflection in this sub-dimension, they have reached up to the level of critical reflection under Theme 4 and Theme 5. **Use of textual evidence and historical context** refers to the use of proper and persuasive samples in order to support what is written and make meaningful connections between them. While the blogs written in this sub-dimension are at the level of understanding in Theme 1, they have reached up to the level of reflection under Theme 2, Theme 3 and Theme 4. **Transfer of knowledge** aspect refers to the fact that learner understood the subject completely and that they use in the blogs what they have learnt in the classes. While the blogs written in this sub-dimension are at the level of understanding under the first three themes, they have approached the level of critical reflection under Theme 4 and Theme 5.

#### 4. Conclusion, Discussion and Recommendations

Reflective thinking levels of blog posts showed an increase from Theme 1 through Theme 4 in the following sub-dimensions; "analysis and meaning making", "depth of reflection", "language use and writing quality" and "transfer of knowledge" however they decreased a little in Theme 5. Prospective teachers wrote more reflective articles from theme 1 through Theme 4 in terms of these criteria. As for theme 5, which is the final theme of the term, prospective teachers mainly repeated what they had written in the first four themes or made a brief outline of the semester. In this respect, it can be said that reflectivity levels of the evaluation of Teaching Practicum process with respect to the final theme have decreased. Prospective teachers wrote blogs, which are rather superficial and that do not have enough power of reflection regarding the overall evaluation of the process of teaching practicum. Hall (2017), in his work with teachers, has shown that the use of directions about how to write increases the reflectivity of blogging. Leijen et.al. (2014) also stated the guidance increases the quality of reflections during practicum. Foong, Nor and Nolan (2018) found that

the facilitation styles of the mentor and supervisor, such as collaborator or coach, influence the reflective thinking level and outcomes as demonstrated by the prospective teachers during the practicum dialogue. The weakness of direction in the final theme of this study may have led prospective teachers to disperse from the topic and hence to less reflective writing. On the other hand, Lee (2005) reported some other factors that affected development of student teachers' reflective thinking. Personal background, content of the reflection and placement context are among these factors. These factors can also influence the level of reflectivity.

As for the following sub-dimensions: "Attending to feeling; sharing personal experience" and "use of textual evidence and historical context", whereas the reflectivity level increased from Theme 1 until Theme 3, it decreased in Theme 4 and Theme 5. The reason for such a decrease can be considered to stem from the contents of the themes. While the first three themes focus on a certain subject, Theme 4 and Theme 5 require prospective teachers to handle the process of teaching practicum from a wide perspective. In the study conducted by Körkkö, Kyrö-Ämmälä and Turunen (2016), as the practicum sessions are going ahead towards more contextual and general, it was observed that student teachers' reflections were broadened and to be more critical. In this study, on the other hand, it is likely that making the overall evaluation of the Teaching Practicum process may have led the prospective teachers to stray off from the issue. They need to learn to make a more critical assessment of their personal experiences. It is also important for them to be able to establish links between the pedagogical lessons they have received in the past years and the situations they met in Teaching Practicum.

Based on "Use of textual evidence and historical context" criteria, teachers wrote less reflective in almost all themes. It may be set forth that the reasons regarding this dimension should be studied with new research. One of the reasons for this may be that prospective teachers failed to include enough evidential sampling for their blogs. It seems difficult for prospective teachers to present evidence-based examples to support their writing as long as they do not read enough scientific publications that examine classroom management, assessment, teaching methods and their impact on student achievement in schools. Contrary to Toom, Husu, and Patrikainen (2015), this result shows that prospective teachers have shortcomings in the connection between theory and practice. It may be useful to examine case studies and related scientific studies on the situations they can meet in their teaching career during the teacher training program. Thus as supported by the results of this study that, the teacher candidates addressed in this study are not sufficient in terms of mentioned criterion and that they have need to be supported during their program.

In this study reflective blogs of prospective teachers, who attend the course of Teaching Practicum for one semester and that write regular blogs, were analyzed. When reflective thinking levels of blog postings were reviewed, it is seen that most of them were written at the level of "reflection". Blogs written at the level of "critical reflection" also have a considerable amount. Blogs written in accordance with the themes, which were provided within the term every other month, consist of the letters in which participants discuss their teaching experiences in terms of communication types, classroom management, and time management, process of assessment and evaluation and professional development. It can be said that prospective teachers revealed more reflective products in comparison to their overall assessments in the blogs, written for more specific issues. This conclusion can be an indicator of there is need for the prospective teachers' more guidance during writing. It is clear that prospective teachers need to look at events from a broad perspective and write more critically. It is thought that it would be beneficial to improve their critical and reflective writing practices during teacher education, or include lessons to teacher training program for improving writing skills. Furthermore, this study, which was performed with prospective

teachers, may also be conducted with in-service teachers who had started their profession, and it may be investigated to what extent the theoretical information, learnt in the universities, and are reflected in their professional lives and classroom procedures.

## **5. Implications**

In this study, using the blogs, prospective teachers were given the opportunity to reflect on their experiences. In teacher practicum, the use of digital media supports reflective thinking (Cook-Sather, 2017), also providing them with a discussion and learning environment (Osmanoğlu, 2016). In this way, we can say that the use of digital media as supportive in teacher education has helped prospective teachers to link theory and practice. Prospective teachers were encouraged to reflect on their experiences in various aspects of their teaching experience. In this study, the themes with more direction, prospective teachers wrote more reflective. This revealed that the guidance could be the critical factor that accelerated the reflective thinking in the teaching practicum. As suggested by Juklova (2015), more contact between the involved individuals and systematic sharing of knowledge contribute to the mutual improvement of stakeholders in teacher training. The sharing of knowledge and experience could be more efficient with the participation of guidance teachers and faculty members in the sharing of prospective teachers' blogs.

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**APPENDIX: Reflection Level Rubric**

Grade	0	1	2	3
Criteria	Habitual Non-reflection	Understanding	Reflection	Critical reflection
Attending to feeling; sharing personal experience	Blog has no reference to personal experience	Blog conveys a single personal feelings about experiences	Blog conveys some single personal feelings about experiences but doesn't relate to personal learning	Blog always conveys personal feelings as the student reflects relates them to future personal learning
Analysis and meaning making	No analysis or meaning making	Little or unclear analysis or meaning making	Some analysis or meaning making	Comprehensive analysis or meaning making
Depth of reflection	Demonstrate little or no understanding of the writing prompt and subject matter. This reflection needs revision.	Demonstrate a basic understanding of the writing prompt and the subject matter.	Demonstrate a thoughtful understanding of the writing prompt and the subject matter.	Demonstrate a conscious and thorough understanding of the writing prompt and the subject matter. This reflection can be used as an example for other students
Language use and writing quality	Considerable difficulty expressing ideas or descriptions clearly. Many grammatical, syntactical, and spelling errors	Writing style conveys meaning adequately. Some grammar, syntax and spelling errors	Good writing style with solid ability to convey meaning. Very good grammar, syntax, spelling, etc.	Strong writing style with clear ability to express thoughts and point of view. Excellent grammar, syntax, spelling, etc.
Use of textual evidence and historical context	No examples from the text are used and claims made in your own writing are unsupported and irrelevant to the topic at hand.	Use examples from the text to support most claims in your writing with some connections made between texts.	Use relevant examples from the texts studied to support claims in your own writing, making applicable connections between texts.	Use specific and Convincing examples from the texts studied to support claims in your own writing, making insightful and applicable connections between texts.
Transfer of knowledge	The responses don't demonstrate that the author fully understands and has applied concepts learned in the course	The responses demonstrate that the author, to a certain extent, understands and has applied concepts learned in the course	The responses demonstrate that the author, for the most part, understands and has applied concepts learned in the course	The responses demonstrate that the author fully understands and has applied concepts learned in the course