

## ***Blogging as Mediated Action in the Development of Two EFL Teachers: An Activity Theory Approach***

**Yi-Wen Liu**

*National Chiao Tung University, Taiwan*

**Ching-Fen Chang\***

*National Chiao Tung University, Taiwan*

Blogs are among the most widely used Web 2.0 tools and have become a popular means of teacher development. This study, drawn from an activity theory approach, investigates how blogs serve as reflective and social tools mediating the development of two English teachers. Data are collected from the two teachers' blogs, periodical online observation of the two teachers' blogging, and interviews with the two teachers. The findings show that blogs are helpful in monitoring and reflecting the teachers' instructional processes. Moreover, blogs enable teachers to communicate with others in the online community and find encouragement. The results of the study suggest that teacher training programs and school administrators should encourage both pre-service and in-service teachers to establish their own blogs in order to function as a reflective tool and to expand their social network for professional development.

**Key words: activity theory, teacher development, blogs, reflection, social interaction, online communities**

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\* corresponding author

## INTRODUCTION

In recent years, with the widespread applications of social networking tools, blogs (a shortened form of weblogs) have become popular as online journals. Herring, Scheidt, Wright, and Bonus (2005) define blogs as “frequently modified web pages in which dated entries are listed in reversed chronological sequence.” (p. 142). With little need for technological sophistication, people may easily and rapidly publish ideas, record personal experiences and reflections, or exchange opinions with others in the blogosphere (Blood, 2002). These features also hold potential in education.

Previous studies have proposed that journal writing is one of the most effective means of critical reflection (Richards, 1991) and professional development (Jeffrey & Hadley, 2002). Blogs, which can function as online personal journals, are credited in motivating teachers to record and reflect on their teaching processes (Ferdig, 2007; Ray & Coulter, 2008). Compared to traditional text-based journals, blogs can be creative spaces that integrate multi-media narratives and web links. Additionally, blogs originally meant for personal reflection can extend outward as vehicles for online communication, where teachers may share ideas with other teachers, receive feedback, and gain support from others (Luehmann, 2008; Riding, 2001).

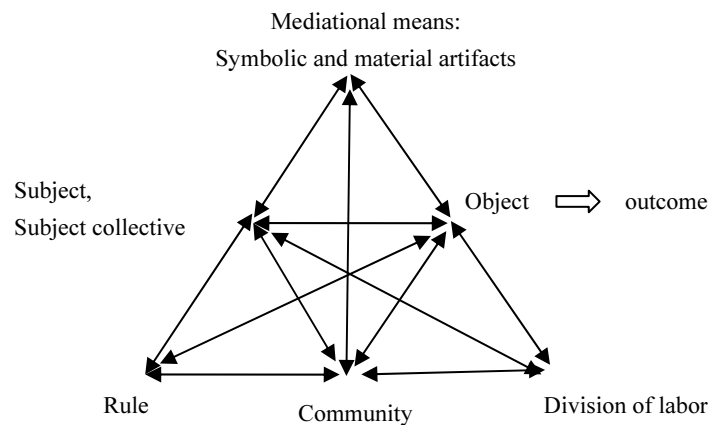
A growing number of teachers, including second language (L2) teachers, have started using blogs in their teaching practices and professional development. The increasing number of teacher blogs has drawn attention to language teacher development. Although blogs have been widely implemented, only a few studies have centered on teacher blogs in relation to short-term teacher training programs (Chan & Ridway, 2005) or professional development projects (Loving, Schroeder, Kang, Shimek, & Herbert, 2007). Little is known about how and why teachers use blogs for their development (Luehmann, 2008; Ray & Coutlet, 2008). This paper aimed to explore how teachers of English as a foreign language (EFL) use blogs for their professional practice. More importantly, we attempted to explore how personal and contextual factors influence EFL teachers’ professional

blogging practices from an activity theory approach (Engeström, 1987, 1999).

### **Activity Theory As the Theoretical Framework**

Activity theory, an important component of sociocultural theory, is originated from Vygotsky's notion of mediation (1978) which represents that human actions are collective and mediated by cultural tools and signs. Leont'ev (1981) extended the notion of mediation by building a three-level model. The basis of this model was to make a distinction between action and activity. In the model, a human activity is driven by an objective-related motive. The motive is instantiated by an action which is observed in the form of goal-directed behaviors. The behaviors are operationalized by "the conditions and tools of action at hand" (Engeström, 1999, p. 4).

Engeström (1987) further situated human actions within social, cultural, and historical contexts. Engeström's model, as illustrated in Figure 1, explains collective activities in terms of the interaction between an individual and his or her environment through mapping out essential elements in an activity system. In this model, an activity is undertaken by a human agent (subject) who is motivated toward the targeted point (object) at which contradictions occur. The transformation is mediated by different artifacts, tangible and intangible alike (artifacts), before ultimately reaching the desired outcome. The transformation is contextualized within an on-going community in which behaviors are constrained by conventions or regulations (rules), interaction with others who share the same object (community), and division of labor, which refers to power status divided among members of that community within the context. Kuutti (1996) further elaborated that all elements of the model are not fixed but interwoven either within an activity system or across different activity systems.



**FIGURE 1**  
**The Expanded Activity System (Engeström, 1987, 1999)**

In the past decades, activity theory has been considered a useful framework for investigating teacher learning and development (e.g., Jonassen & Rohrer-Murph, 1999; Wells, 2002). Wells (2002) further found a close connection between reflective writing and activity systems. In this sense, activity systems seem to provide an appropriate framework for studying teachers' developmental processes through blogging.

### **Teacher Development and Related Studies**

Teacher development is a continual process involving change and growth within the intellectual, experiential, and attitudinal dimensions of a teacher (Lange, 1990). In recent years, the essential themes of teacher development have undergone a conceptual shift from contextual knowledge to mental functions (Richards & Farrell, 2005) and a theoretical shift from product-oriented to process-oriented (Freeman & Johnson, 1998; Knight, 2002). These changes of focus have led to a switch in trends concerning research and practice. Research on teacher development has started to regard the

teacher “as a learner of teaching, the social context of schools and schooling within which teacher-learning and teaching occur, and the activities of both language teaching and language learning” (Freeman & Johnson, 1998, p. 397). In practice, reflective teaching has been credited as a core approach in assisting teachers to record their processes and enhancing reflection (e.g. Boud, 2001; Jarvis, 1992; Jeffrey & Hadley, 2002).

Teacher diaries or reflective journals, which may help teachers critically reflect over their teaching, have been recognized as effective tools for teacher reflective teaching, an important practice in teacher development (e.g. Francis, 1995; Jeffrey, 2007; Richard, 1991). Jarvis (1992), for example, found journals to have a positive impact on in-service teachers in specific training programs. Numrich (1996) revealed that journals offered insight into the pressing needs of novice ESL teachers. More recently, Jeffrey and Hadley (2002) and Jeffrey (2004, 2007) conducted a series of studies examining and comparing his own teaching diaries at different stages. He concluded that journal writing helped him monitor his teaching and gain a better understanding of both the realities of teaching and his own abilities and limitations.

### **Blogs for Teacher Development**

With the development of social networking technology in recent years, blogs, which mainly function as online journals, may benefit teacher development in three ways. First, blogs can be accessed by readers with unprecedented ease. Second, blogs are not only personal but also interactive and collaborative. Finally, blogs provide functions for instant publishing and editing (Suzuki, 2004).

Previous research has explored how blogs may benefit teacher development, particularly in regards to reflective practice and online communities. For example, Stiler and Philleo (2003) examined the use of blogs as online journals in two groups of pre-service teachers and found that both students and teachers considered blogging to be a unique tool that

enhances reflective development and builds online communities. In their investigation of teachers' self-regulating processes in blogging, Eekelen, Boshuizen, and Vermunt (2005) found that the process of reading and writing online journals appeared to enhance the development of both pre-service and in-service teachers. Loving et al. (2007) examined the roles blogs played in a teacher networking project and found that blogs helped to build a network among the teachers involved in the project. Teachers shared resources and ideas through the blogs and reflected on their own practices. Ray and Coulter (2008) explored how teachers' reflections in their blogs varied from casual reflection to meta-reflection. Furthermore, blogs enhanced the creation of online communities in which interaction and collaboration among teachers provided insights and guidance for teacher development. Luehmann (2008) defined six types of practice for teacher development in reference to a middle school science teacher's blog entries (a detailed description will be presented in the "Method" section). She concluded that blogs may encourage identity and foster a sense of professionalism in the blogosphere.

In summary, previous studies have demonstrated that blogs encourage teachers' self-reflective practices, assist in conceptual development through material and idea sharing, and enhance the construction of online communities that provide links among teachers. While a few recent efforts have started to examine the relationship between blogging and teacher development, few studies have focused specifically on L2 or even English as a foreign language (EFL) teachers. Furthermore, few have attempted to examine how teachers use blogs for their professional practice from a sociocultural perspective.

### **The Current Study**

The current study adopted activity theory as a theoretical basis, taking into particular consideration teachers' experiences and social-historical contexts in order to investigate how blogging mediated English teachers' development. Three research questions were addressed:

1. How do English teachers' blogs mediate their learning practice?
2. What factors influence the mediating functions of blogs in the teachers' development?
3. How do the English teachers perceive the role blogging plays in their professional development?

## METHODS

### Participants

The current study targeted two EFL teachers who were recruited as participants based on three main criteria. First, they were English teachers from formal schooling systems. Second, they posted over fifty blog entries related to language teaching. According to Chang (2007), "fifty entries" was a bottom line ensuring that enough entries existed for analysis and that the bloggers devoted enough time to maintaining their blogs. Finally, they posted blog entries regularly and continuously. As Bailey (1990) noted, regular and candid entries documented in a personal journal are the best way to record teaching experiences. Table 1 shows the two participants' demographic information.

**TABLE 1**  
**The Two English Teachers' Demographic Information**

	<b>Wu</b>	<b>Lin</b>
Gender	Female	Female
Age	Late 20s	Early 30s
Nationality	Taiwan	Taiwan
Education	A BA in Foreign Language from Taiwan	An MA in TESOL from Taiwan
Type of school at which they taught	Elementary school	Vocational high school
Years of teaching	4 years	9 years
Years of blogging	4 years in <i>Wretch</i> <sup>1</sup>	1.5 years in <i>Yam</i> <sup>a</sup> 2.5 years in <i>Wretch</i>

<sup>1</sup> *Wretch* and *Yam* were two local blog providers which mainly attracted bloggers in Taiwan.

## The Teachers' Blogs

### Wu's Blog

Before data collection, Wu had been blogging for four years. She launched a blog in *Wretch* simply because it was the most popular blogging provider at the time. Figure 2 presents a screenshot of her blog and the column displaying a list that categorized her post entries.



**FIGURE 2**  
**The Homepage of Wu's Blog and The Page of Entry Classification**

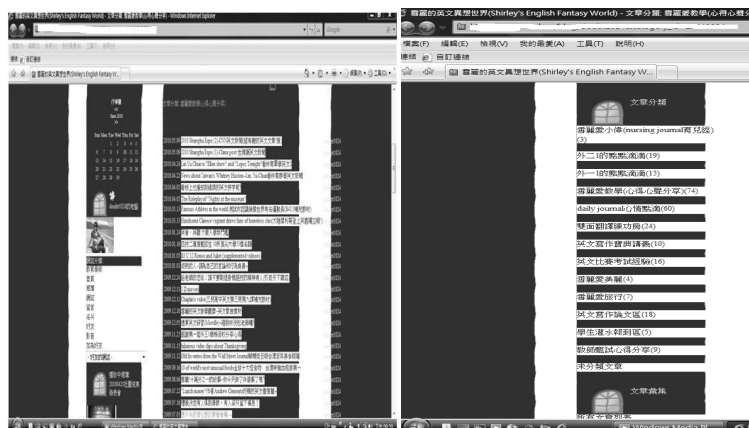
Before data collection, Wu had written over 1,400 entries, of which 422 (30%) entries were related to teacher learning practice. Compared with other teachers who simply used blogs for English teaching and learning, Wu's blog



included a wider range of topics, including traveling, personal reflection on daily life, music, and food (see Figure 2). Three of Wu’s self-classified categories were related especially to teacher learning practice (*teaching journals*, *pre-service teaching journals*, and *lesson plan examples*). On average, she posted four or five entries per month as teaching journals.

### Lin’s Blog

At the time of data collection, Lin had been writing blog entries for over four years. Lin launched her first blog in *Yam*, another popular blog provider in Taiwan. However, when she found that more people in her social network used *Wretch*, she switched to *Wretch*. Because Lin’s blog entries in *Yam* were not accessible, the current study only collected entries from *Wretch*, in which she posted 197 entries related to teacher learning practice. Figure 3 presents the screenshots of Lin’s blog in *Wretch*.



**FIGURE 3**  
The Homepage of Lin’S Blog and the Page of Her Entry Classification

Before data collection, Lin had posted 252 blog entries with 197 (78%) ones related to teacher learning practice. Among the 13 themes she used to categorize her blog entries, 10 related to English teaching and learning, including *teaching journals*, *learning materials related to English writing and thesis writing*, and *experiences with English speech contests and teacher recruitment tests*. On average, she wrote five or six entries related to teaching and learning every month.

### **Data Collection Procedure**

The data of the study included four major sources: weekly online observations, research logs, two interviews with each teacher, and blog entries. The data collection procedure involved two stages. At the first stage, we started observing the two teachers' blogs weekly, including all entries posted from the beginning. We took observation notes and kept research logs. We then contacted the two teachers who granted their consent, after which we started collecting their blog entries related to teacher learning practice and conducted the first interviews. At the second stage, we continued taking observation notes and collected the two teachers' updated blog entries. After a six-month observation, we conducted the second interviews, which focused on changes in their blog actions, themes, or experiences in blogging (See Appendix A for the two interview guides).

### **Data Analysis**

#### *Blog entry coding*

To understand the learning practices shown in the two teachers' blogs, we adopted content analysis procedures (Krippendorff, 1980) to analyze the two teachers' blog entries with a coding scheme proposed by Luehmann (2008). Luehmann's coding scheme initially categorizes teacher practice into six types, namely, *awareness and consideration of personal educational*

*autobiography* (P1), *engagement in critical inquiry-based reflection* (P2), *engagement in community-based interactions* (P3), *studying practices in a way that is connected to, yet removed from, studying practices* (P4), and *consideration and integration of an expert voice* (P5), and *engagement in thoughtful, intentional professional practice over a long term and in sustained ways* (P6). However, as Leuhmann (2008) reported, P6 was related to each of the other five practices. Since it was not an applicable category to analyze teachers' learning practice, we decided to keep the first five categories in the current study but delete P6 in our coding scheme. Table 2 shows the operational definition of each type (see Appendix B for examples)

**TABLE 2**  
**Operational Definitions of Luehmann's Coding Scheme**

<i>P1</i>	<i>Autobiography</i>	<i>Teachers' own awareness, understanding, and emotions that assist them in dealing with the discrepancies between their prior beliefs and the professional identity they are seeking to develop.</i>
<i>P2</i>	<i>Inquiry-based reflection</i>	<i>Critical examination of the varied tensions in teachers' professional practice. It enhances teachers' understanding of the complexities of teaching.</i>
<i>P3</i>	<i>Community-based interaction</i>	<i>Engages in interactions between the blogger and groups of like-minded people who share certain approaches to their practice. It can offer valuable developmental support for teachers.</i>
<i>P4</i>	<i>Studying Practices</i>	<i>Using classroom-based materials, such as lesson plans or students' work, as the focus of personal reflection.</i>
<i>P5</i>	<i>Expert Voice</i>	<i>Connect and integrate professional work or research-based implications.</i>

To understand the two English teachers' blogging behaviors throughout the years they kept their blogs, we first divided all of Wu's and Lin's blog blogging process into three stages. The first stage referred to the first six months of their blogging, and the last stage was the last year of their blogging

before the data collection time. The second stage referred to the period of time between the first and the last stages. However, since there were two and half years in Wu's case and only one year in Lin's case at the second stage, we attempted to adjust the difference between the two teachers' blogging length and the amount of their blog entries and the huge amount of posts by Wu at this stage, and only coded Wu's entries posted in the odd months at the second stage (15 months) but coded all of Lin's blog entries at this stage (12 months). In total, 224 entries by Wu and 197 entries by Lin were coded and analyzed.

Next, the blog entries were coded based on Luehmann's coding scheme (2008). Similar to Luehmann's study, we found that a single post was usually associated with one or more of teacher practices, as exemplified in Excerpt 1 in the following.

Excerpt 1

While I am not a novice teacher now, I still constantly ask myself, "How to be a good teacher?"...How to achieve successful classroom management?...How to make my teaching both enjoyable and substantial so that the students will look forward to my class every week...Until now, what I have mentioned above are all unsolved questions in my mind...

I would like to share the valuable experiences I have learned from three admirable teachers...

Master Teacher 1: Ms. Wang

1. Attitude and thoughts are extremely important: Take your students as your own sons/daughters, playing multiple roles while you are teaching (a teacher/parent/friend)...
2. Learn with your students... (blog entry, 2007/09/12)

In this post, Lin first reflected her teaching process and then shared three teachers' stories with others. The reflection was coded as a P2, *Inquiry-Based Reflection*, and the sharing stories were coded as a P3, *Community-Based Interaction*. To truly reflect teacher learning practice in both teachers'

blogging, we identified an analytical unit as a teacher learning practice defined in Luehmann's five grounded categories, not as an entire post.

To ensure inter-rater reliability, the two authors first randomly selected 10 entries at each stage from each teacher's blogs. Then, we coded the 60 posts based on the five grounded practices. A preliminary inter-rater agreement was 70%. Disagreement was resolved after discussion. The inter-rater agreement in the rest of the coding results yielded 85%. Disagreement was later resolved after discussion.

Finally, after calculating the observed frequency and percentage of learning practices in each teacher's case at the three stages, chi-square analysis was conducted to determine whether there is significant difference between the two teachers' blogging practice and changes of individual teachers' blogging practice at different stages ( $p < .05$ ).

#### *Analysis of Observation and Interview Data*

Engeström's activity system model (1987, 1999) was used to examine the relationships of their blogging processes. The model helped to examine individuals' motive-driven actions toward the goals they set for their blogging, the roles that individual blogs played as mediated artifacts, and the contextual elements situated within their blogging processes. Both researchers read through the interview transcriptions, marked incidents related to the six essential components (subject, mediated artifacts, objectives, rules, community, and division of labor) within different activity systems, and discussed the marked elements and their relationships with the teachers' blogging. Finally, we mapped out the interweaving relationships between the elements in Wu and Lin's activity systems to explain the factors influencing their blogging.

## RESULTS AND DISCUSSION

### Research Question 1: How do English teachers' blogs mediate their learning practice?

*Both teachers' blogging in relation to teaching*

Table 3 shows the observed frequencies and percentages of Wu's learning practices in her blogging throughout the three stages. Chi-square analysis indicated that the observed frequencies of Wu's five learning practices at the three stages were significantly different from each other. As shown in this table, Wu's learning practices, at the first stage, mostly related to her *Awareness of Personal Educational Autobiography* (P1) (33, 33.7%), *Studying Practices* (P4) (27, 27.6%), and *Critical Inquiry* (P2) (21, 21.4%) in that order. The learning practice pattern varied at the second and third stages in which Wu posted most entries related to *Community Interaction* (P3) (81, 49.4% and 49, 53.8%), respectively. Comparatively, the frequencies of P1, P2, and P4 dropped down in the two stages.

**TABLE 3**  
**Observed Frequencies and Percentages of Wu's Learning Practice at the Three Stages**

Stages	Stage 1		Stage 2		Stage 3	
Total number of episodes	98		164		91	
P1 Autobiography	33	33.7%	38	23.2%	11	12.1%
P2 Critical Inquiry	21	21.4%	15	9.1%	9	9.9%
P3 Community Interaction	13	13.3%	81	49.4%	49	53.8%
P4 Studying practices	27	27.6%	15	9.1%	14	15.4%
P5 Expert Voice	4	4.1%	15	9.1%	8	8.8%

Total number of episodes = 353.  $\chi^2 = (8, 353) = 58.036, p = 0.001$

Table 4 presents the observed frequencies and percentages of Lin's learning practices at the three stages. The results of chi-square analysis revealed that the observed frequencies of Lin's five learning practices at the

three stages were significantly different from each other. Different from Wu, Lin posted most entries related to *Community Interaction* (P3) throughout the three stages. However, the observed frequencies of P3 were more at the first and third stages than at the second stage. The frequency of her posts related to *Awareness of Personal Educational Autobiography* (P1) also decreased at the third stage but *Critical Inquiry* (P2) and *Expert Voice* (P5) increased at the second and third stages.

**TABLE 4**  
**Observed Frequencies and Percentage of Lin's Learning Practice at the Three Stages**

	Stage 1	Stage 2	Stage 3
Total number of episodes	29	171	153
P1 Auto-Biography	7 24.1%	42 24.6%	26 17.0%
P2 Critical Inquiry	1 3.4%	20 11.7%	19 12.4%
P3 Community Interaction	17 58.6%	57 33.3%	82 53.6%
P4 Studying Practices	2 6.9%	19 11.1%	7 4.6%
P5 Expert Voice	2 6.9%	33 19.3%	19 12.4%

Total number of episodes = 353.  $\chi^2 = (8, 353) = 21.408, p < 0.006$

Table 5 shows the observed frequencies and percentages of Wu and Lin's learning practice. The two teacher' blogs demonstrated significantly different learning practice. Although both teachers posted most entries related to *Community Interaction* (P3) and the observed frequencies of P1 and P2 were similar, Wu's blog tended to reflect her teaching by making lesson plans (P4) (56, 15.9%) while Lin's blog tended to share *Expert Voice* (P5) (54, 15.3%).

**TABLE 5**  
**Observed Frequencies and Percentages of Wu And Lin's Learning Practice**

	Wu		Lin	
Total number of episodes	353		353	
P1 Auto-Biography	82	23.2%	75	21.2%
P2 Critical Inquiry	45	12.7%	40	11.3%
P3 Community Interaction	143	40.5%	156	44.2%

P4 Study of Practice	56	15.9%	28	7.9%
P5 Expert Voice	27	7.6%	54	15.3%

Total number of episodes = 706.  $\chi^2(4, 706) = 19.505, p = 0.001$

According to the first interview, Wu initially defined her blog as a recording tool for her own teaching process while Lin defined her blog as a platform for idea exchange. The results of teacher learning practice analysis, however, demonstrated that blogging provided the two teachers' opportunities to explore more practices than they initially planned or expected. These practices are "valuable and important to teacher growth." (Leuhmann, 2008, p. 308)

### **The Roles of Blogs in The Professional Development of The Two Teachers**

Previous studies have revealed two main advantages of blogging in teacher development: facilitating personal reflection and building online communities (Eekelen, Boshuizen, & Vermunt, 2005). The results of this study revealed that blogs can play two roles in the two teachers' cases—as a reflective tool facilitating the teachers' reflections on their teaching and as a social tool mediating them and others. The roles of blogs are further elaborated as follows.

#### *Blogging as a reflective tool*

Dewey (1933) defined reflection as a discovery process that involves making connections through the deeper understanding that a learner gains from one experience to another. Since then, reflection has been regarded as the core of learning. In teacher education, reflection opens up possibilities for the transformation of everyday classroom life for teachers (Bartlett, 1990). Reed and Bergemann (2001) further asserted that reflection is an indispensable thinking process that may help pre-service and in-service teachers become more successful. Previous studies have suggested that the



process of writing in electronic journals, such as blogs, may help to raise teachers' awareness of teaching complexities and may further enhance the development of reflectivity (Stiler & Philleo, 2003). More importantly, blogs can be a non-invasive and non-threatening instrument for teachers in observing, examining, and reflecting on their classroom processes (Suzuki, 2004).

In line with these assertions, both teachers' blogs functioned as a reflective tool facilitating the process of reflection. Wu mentioned that when she recorded her teaching process, the scenes flashed through her mind. Blogging also helped her reflect on the knowledge or information she received from workshops that she attended.

In workshops, some speakers are excellent while some are really disappointing. I am not the kind of person who raises my hand to challenge the speaker face-to-face. Thus, my blog turns into a place for me to show others my opinions. Before writing down my ideas, I have to compile the information I received in the workshops with my reflection. It becomes an opportunity for me to reconsider the issues. (the 1<sup>st</sup> interview, 2009/08/19).

Lin was an innovative teacher who tried different ways of teaching. However, not every innovative teaching idea was a success. For example, once she brought in a coffee machine, showed her students how to make coffee and taught those related English terms. However, her students did not show enthusiasm in the task. Through recording the teaching process, she reexamined the problems and found solutions.

Originally, I thought it would be interesting if we could have a cup of coffee while learning related English terms. But soon I found that these high school students prefer milk tea to coffee. As I recorded this event in my blog, many ideas flashed into my mind... Now I realize that I have to understand my students more before I design a task (the 2<sup>nd</sup> interview, 2010/02/27).

By recording their teaching tasks in blogs, they recalled their own teaching processes, examined the strengths and weaknesses of their teaching, and reevaluated their responses to the events or difficulties they encountered at work. In this sense, blogs, as reflective tools, helped them revisit their teaching ideas and practices, deepen their understanding, and identify problems. The reflective process might further foster their metacognition which was essential to their learning and professional development.

*Blogs as a social tool*

As a popular Web 2.0 tool, blogs can easily serve as a virtual network platform for connecting with others and facilitating social interaction (Ray & Hocutt, 2006; Suzuki, 2004). Compared to traditional reflective journals, which are normally personal and static, reflective blogs “are dynamic, social, and collaborative journals that allow for public discourse between the author, peers, and teacher education professionals” (Ray & Coulter, 2008, p. 19). The two teachers acknowledged that blogs were especially helpful in enhancing social interaction with others and allowing community members to show support and make suggestions. Since it was common for in-service teachers to face challenges and difficulties in teaching, the asynchronous computer-mediated communicating tool—blogs—allowed others to take time to think about the issue in concern before providing valuable suggestions (Ray & Coulter, 2008). For example, Wu expanded her social network with old friends and many English teachers with whom she was not previously acquainted but at the same time, she excluded people in her teaching community. She perceived that the feedback she received in her blogs sometimes were even more helpful than the oral feedback from her colleagues. She especially felt cheerful and encouraged when realizing that someone on the Internet tried so hard to comfort her or help her overcome the difficulties she encountered in teaching. As she said,

While I have many nice colleagues, I still need support from those who are not

related to my working environment. Thus, I think it is good to have a blog. In blogs I often feel happy to find someone leaving me messages and encouraging me even if they don't know me before. Their suggestions are usually helpful and inspiring. After reading their words, I reconsider my teaching approaches (Wu, the 1<sup>st</sup> interview, 2009/08/19).

Lin built a close relationship with her colleagues, students, and acquaintances through her blog. She reported that some feelings were not easy to be expressed in face-to-face conversation but she would reflect more thoroughly over what happened and share deeper thoughts with her colleagues through blogging.

At school, I only chat with one or two of my friends. It is not appropriate to talk much about our inner thoughts since there are always others in the same office with us. On the Internet, I find that many of my colleagues tend to express their true feelings, which is what unlikely to happen when we are talking face-to-face. There are also some teachers who I was not quite familiar with at first, but we gradually came to understand each other and cheer each other up through interacting on blogs (Lin, the 2<sup>nd</sup> interview, 2010/02/27).

Different from Wu who blocked people in her teaching community, Lin's blog especially functioned as a virtual space between her and her students. She felt cheerful and encouraged when reading sweet words from her students in her blog. The intimate interaction with her students via her blog encouraged her to be more engaged in her blogs. In addition to the interaction with her students, interaction with others in the online community also encouraged her to share her teaching materials and experiences in her blog. Through sharing ideas with other members, she built a close relationship with others. The blogging experience became enjoyable.

Loving et al. (2007) indicated that blogging enhances links among teachers because it can fulfill both conceptual and affective purposes, which help teachers build rapport with others. Luehmann (2008) also proposed that with

the help of blogs, teachers could simultaneously support and be supported by a professional community, positioning themselves centrally within a larger professional discourse. Support and suggestions from other members may be among the most valuable and influential rewards from the online communities. As shown in the two teachers' cases, the long-term blogging became a continuing reflective practice of their teaching and helped them build an online community to connect others, in which they reflected over their teaching, shared ideas with others, and received encouragement and suggestions from other community members. These mediated actions, thus, led to various learning practices that they might or might not plan or expect while they first launched their blogs.

**Research Question 2: What factors influence the mediating function of blogs in the teachers' development?**

The analysis of the two teachers' activity systems revealed that although the two teachers' activity systems shared some common grounds, the interweaving relationships of the factors in their activity systems seemed to demonstrate different patterns, as shown in Figures 4 and 5. Figure 4 shows both teachers' initial activity systems, and Figure 5 shows both teachers' activity systems at the later stages. As a novice teacher, Wu was anxious about her teaching which sometimes led to negative emotions. In contrast, being an experienced teacher and holding a master's degree in TESOL, Lin attempted to experiment different approaches in her teaching and was eager to share and exchange her ideas and experiences with fellow bloggers. These initial motives triggered transformation in their activity systems in order to achieve the goals they set. Blogs thus functioned as mediated artifacts in their activity systems. In addition to the different initial motives for blogging, their teaching and learning experience led to different mediated actions in their blogging. For example, Wu always used the Chinese language as major mediation while Lin, gaining experience in accessing English professional resources while studying in graduate school, wrote her blog entries

sometimes in Chinese and sometimes in English.

In addition to initial motives and teaching and learning experience, the audience of their blogs seemed to affect the mediating function of blogs in the two teachers' development. The two teachers held different attitudes toward the members in their blogs. Wu initially set the function of her blog as a record of her teaching. To record her true feeling and reflection on teaching, Wu set strict limits on her blog readership. She invited her friends and teachers from other schools who sought for teaching materials but excluded people from her teaching community, including her colleagues, students, and students' parents, because content related to her negative emotions may be inappropriate to share with her students or colleagues. This is shown in Wu's interview below.

Many of my blog entries are about my personal feelings. My blog is a place to release pressure and negative emotions about teaching. I don't want my entries to be read by anyone in my work place since I feel uncomfortable and can't express my feelings freely... For my colleagues, my students, and students' parents, I have launched another blog which only includes teaching skills and resources... (Wu, the 1<sup>st</sup> interview, 2009/8/19).

In contrast, Lin originally set her blog as a platform to keep in touch with others. Her blog functioned as a virtual community where she communicated with her school colleagues and students after school.

The objectives that the teachers set at the beginning of their blogging also influenced the power relationship between them and other members. Since Wu planned to simply record teaching for her own reference and Lin attempted to share her ideas and experiences with others, both teachers tended to hold strong power to decide what to be posted and what to share. As Lin said,

For me, blogging is self-centered. I record what I regard as important, such as my experiences in high School teacher recruitment tests. I do not post entries for a

certain group or audience. Therefore, I do not spend much time thinking about the topic or content. It is tiring if I have to always consider whether my topics are attractive enough. (the 2<sup>nd</sup> interview, 2010/02/27).

After the four-year blogging, the two English teachers' productive and persistent posting facilitated their exploration of various types of learning practices and intensive interaction with others. The constant writing, reflection, and interaction with others appeared to change the teachers' blogging practices. The changes were also reflected in their activity systems, as shown in Figures 4 and 5. Getting more experiences in teaching, Wu decreased her posts related to her *Awareness of Personal Educational Autobiography* (P1), *Critical inquiry* (P2), and *Studying Practices* (P4) but wrote posts related to *Community Interaction* (P3) at the second and third stages of blogging, as observed in Table 3. Consistent with her initial objective to share ideas and experiences with others, Lin posted most entries related to *Community Interaction* (P3). However, she also increased posts related to *Critical Inquiry* (P2) and posts related to *Expert Voice* (P5). In the interview, she revealed that in the process of blogging, she learned much information and professional knowledge while exploring other teachers' blogs. Thus, in addition to her own idea and experience sharing, she also introduced the professional content she found in others' blogs (P5). This may lead to an increase of posts related to P5, as shown in Table 4.

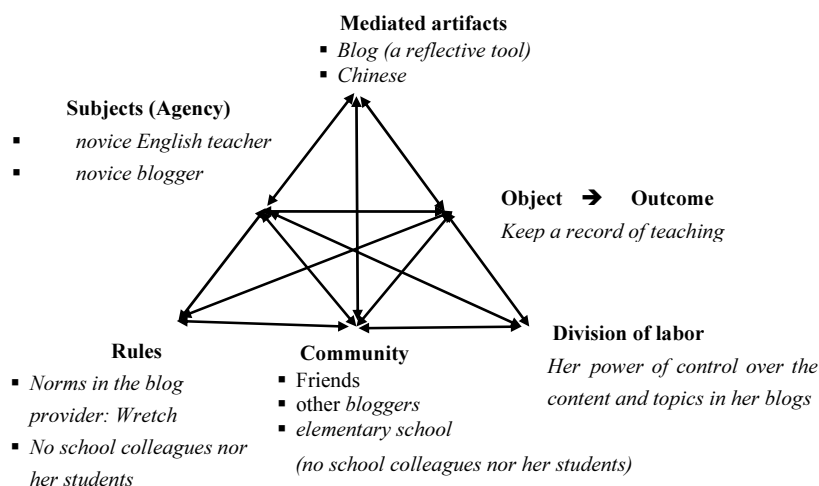
Riding (2001) indicated that wide-range membership and facilitated communication are essential contributing factors to successful, continuous development among members in communities. For both teachers, other community members' zealous participation and active feedback reinforced their regular and persistent engagement in the online community, as Wu mentioned in her interview.

It is hard to describe the feelings of blogging. Sometimes it is tiring. I have to type a lot of words and upload pictures and videos. However, when I stop posting entries for a period of time, I think that I can't go on with that and must get back

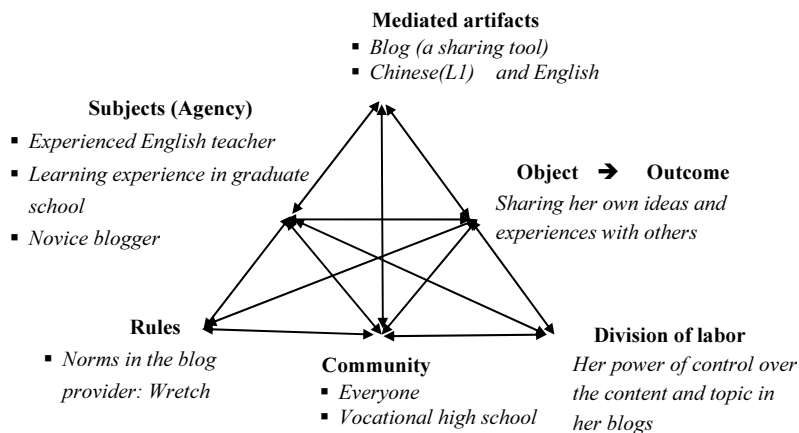
to the blogging community. There are people who help me a lot in the online community. I have to keep my connections with them and I would also like to do whatever I can do to help others through blogs... (the 2<sup>nd</sup> interview, 2010/3/18).

Lin confessed that she was not a hard-working blogger. However, when she found that her blogs attracted readers who she did not even know and who had accidentally visited her blog and given her feedback, Lin was encouraged to become more involved in her blog, interact with other bloggers, and share teaching materials and professional resources with blog readers. The reciprocal relationships between their agency and interaction with others in the online community led to the change of their goals and objectives, resulting in their highly engagement in blogging and the change of their mediated actions in their blogging.

### Wu's initial activity system

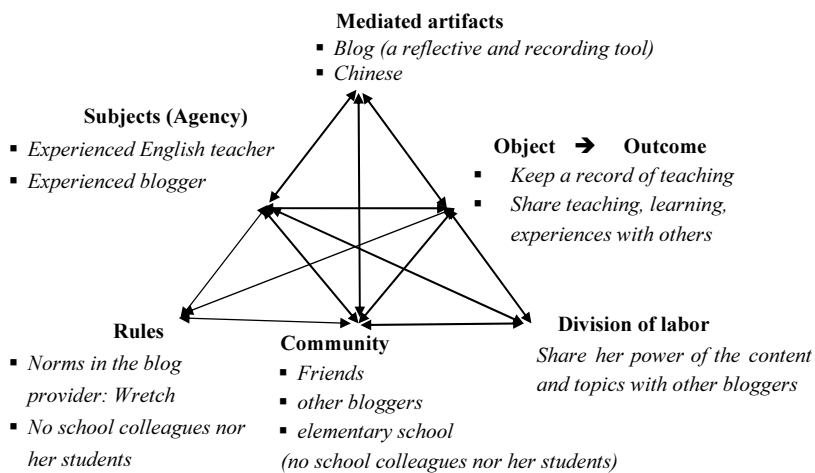


**Lin's initial activity system**



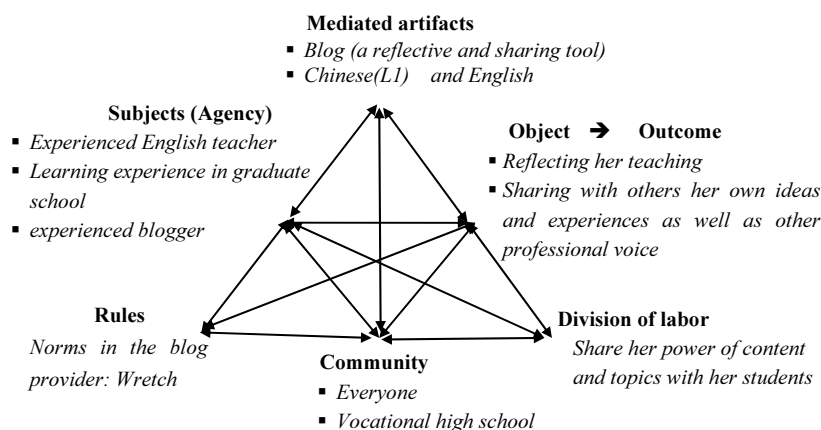
**FIGURE 4**  
**Wu'S Activity Systems in The Process of Blogging**

**Wu's activity system at later stages**





**Lin’s activity system at later stages**



**FIGURE 5**  
**Lin’S Activity Systems in The Process of Blogging**

Although both teachers demonstrated enthusiastic engagement in their blogs, they maintained their different attitudes toward the accessibility of their blogs. In other words, Wu kept blocking people in her teaching community from accessing her blog and Lin set no constraint on the accessibility of her blogs. However, the feedback from other members seemed to influence their decision of post topics. Wu began to care about her readers’ need while choosing topics. Lin was concerned most about her students who might be able to learn useful information from her blog. Thus, she always chose topics which may interesting or useful for her students, and her students’ needs and feedback to her blogs to some extent might have affect in her decision of topic selection.

The analysis of the two teachers’ cases through the lens of activity theory revealed that both teachers’ activity systems were dynamically transformed throughout the process of blogging. The transformation was influenced by multiple factors and the interweaving relationships among the factors, as shown in Figures 4 and 5, including the accumulation of their teaching,

learning, and blogging experience (agency), their interaction with others (community), and the power relationship between them and other bloggers (division of labor.)

Previous studies have suggested that blogging benefits teacher development by facilitating personal reflection and building online communities (e.g. Eekelen, Boshuizen, & Vermunt, 2005; Tsui, Wu, & Sengupta, 1996). In line with the claims made in the blogging literature, the results of the study indicate that the two functions that blogs performed in the two teachers' cases encouraged either the experienced or the novice teacher to explore various learning practices which they did not expect when they launched their blogs. These practices may further influence their professional development.

It is noticed that since both teachers were long-term and active bloggers who regularly posted and intensively interacted with others. The various learning practices presented in their blogs and the transformation of their activity systems may not be found in other teacher bloggers who do not display persistent and regular blogging behaviors. Thus, the claim that blogging leads to teacher development should not be viewed as inevitable outcome.

### **Research Question 3: How do the English teachers perceive the role blogging plays in their professional development?**

As mentioned in Research Question 1, none of the teachers especially associated blogs with their teacher development. However, after several years of blogging, they considered that the blogging practice indeed contributed to their professional development. Although the two teachers came from different personal backgrounds, teaching experiences, and blogging experiences, they both held positive attitudes toward their blogging experiences for three reasons.

First, the two teachers considered blogs to be the best tool for their teaching practice because of the technology's easy publishing and revising

features. These features allowed them to be creative and flexible concerning the topics, posting time, and frequency of posts, as well as the multimedia incorporated into their blogs. Second, the social functions of blogs provided them with opportunities to interact with other teachers because Wu and Lin both asserted that the constant exchanging and sharing of ideas with other colleagues was an important factor in their improvement. As Wu stated,

Subject teachers in most schools tended to work individually. While some teachers want to exchange ideas with others, others might consider it unnecessary because it would take up a lot of time. The interactions with others in blogs were asynchronous, without being limited by time and space. (The 1<sup>st</sup> interview, 2009/8/19)

Third, the support, positive feedback, and suggestions that both teachers received from the online community reinforced their passionate devotion to their blogs. As Lin indicated,

Some people give me feedback in my blog. I don't know who they are. We don't know each other. Nevertheless, they visit my blog and give me suggestions. This is a good thing. I can communicate and exchange ideas with others through my blog. Supports from others have turned out to be a great power inspiring me to keep writing blog entries. (the 2<sup>nd</sup> interview, 2010/2/27)

Through the writing process, they became more aware of their teaching problems and were able to adjust their teaching attitudes and attempted to find more practical solutions to improve their teaching. As Tsui, et al (1996) indicated, electronic journaling process not only stimulates teachers' awareness of the complexity of teaching but also enhances their development of reflectivity.

In summary, the two teachers' blogging experiences were positive; their experiences led the two teachers to confirm the efficacy of blogs in teacher development. They felt that their blogging experience enhanced their content

knowledge, helped them become more mature, and boosted their confidence in their teaching. In her interview, Wu even suggested that every teacher should have her/his own blog for the sake of professional development.

Actually, I think it is necessary for all teachers to have blogs, especially English teachers in public schools. In my point of view, subject teachers should work as a team. However, subject teachers in most schools tend to work individually. While some teachers want to exchange ideas with others, they might consider it to be something that takes a large amount of time. Even if that's the case, blogs can be useful for teachers who post their ideas in their free time (Wu, the 2<sup>nd</sup> interview, 2010/03/18).

Although Lin acknowledged the blogs' time-consuming nature and their requirement for patience, she also suggested that blogging would be a helpful way for teachers to constantly share stimulating ideas and improve their teaching.

## CONCLUSION

This study focused on the development of two Taiwanese teachers through their blogs. The results of this study indicated that blogs served as reflective and social tools and facilitated language teachers' reflections on their practice and the construction of online communities connecting them with others who shared the same interests and goals in teaching. The findings of the present research suggest that blogs may serve as a tool with great potential to facilitate teacher development. Teacher training programs and school administrators should take advantage of blogs and invite both pre-service and in-service teachers to launch their own blogs, which would allow them to build supportive social networks with other teachers.

This study is not without limitations. Although the study targeted two English teachers, they had been blogging for only a few years. Although we

conducted two interviews to retrieve the teachers' motives, blogging processes, and blog behaviors throughout the whole study, data at the first and second stages were not collected directly as they happened, but rather according to the participants' recall. Because teacher development is a continually evolving process, the six-month data collection procedure may not holistically grasp their blogging practices over the years. Longitudinal studies may gain a more comprehensive view of the relationship between blogs and teacher development.

## THE AUTHORS

*Yi-Wen Liu* received her master's degree in Institute of TESOL, National Chiao Tung University, Taiwan.  
Email: smilingxd@msn.com

*Ching-Fen Chang*, Ph.D. is assistant professor in Institute of TESOL, National Chiao Tung University, Taiwan. Her research interests include computer-mediated communication and second language teaching and learning, second language writing, and sociocultural theories in second language teaching and learning.  
Email: cfchang311@gmail.com

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## APPENDIX A

### Interview Guides

#### Interview#1

##### **I. Factors Influencing Blogging**

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###### **Subject and Object**

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###### ***Personal Background***

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1. What is your educational background? What is your major?
  2. How long have you been teaching?
  3. Why did you decide to be a teacher?
  4. What are your expectations on a teacher/ an English teacher?
  5. Tell me about your own (English) learning experiences.
  6. For you, what is the most challenging part of teaching?
- 

###### ***Blogging***

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7. Tell me about your previous blogging experiences.
  8. What motivated you to write entries related to teaching and learning?
  9. Before you started to post blog entries, how did you perceive blogs? What did you expect to achieve through blogging?
- 

###### ***Mediation***

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10. Why did you choose to write blog entries in Chinese/English?
  11. Why did you launch your blog in the blogging website?
  12. How many entries did you try to post per month?
  13. In addition to English teaching and learning, are there entries concerned with other categories in your blog? Why did you include these categories?
  14. Before blogging, did you have any experiences of keeping paper and pen teaching diaries? What are the similarities and differences between traditional teaching diaries and blogs?
  15. Did the characteristics of blogs (video/picture sharing, asynchronous interaction, publicity) facilitate or cause any inconvenience during your blogging process?
  16. Did you record every event during your teaching process in blog? If not, how did you decide whether to record the event or not? Were there any factors
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influencing your choice?

17. How did you feel when restating an event in blog entries?
18. For you, did expressing thoughts and feelings (either positive or negative) in blogs do you any help? In what ways?
19. Were there any impressive events in your blogging experience?
20. Did you review your entries? If yes, how did you feel when reviewing the entries?

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**Community, Rules, and Division of Labors**

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21. Did you have any ideas about those who read your entries? (e.g. Who were they? What were their careers?)
22. Did you try to interact with those who read your entries? How?
23. Did others provide feedback to your blog entries? If yes, please explain a little bit about the feedback you received.
24. Did feedback from others help you in any ways, either in terms of teaching or blogging (e.g. support, encouragement, suggestions)?
25. Did feedback from others affect your writing style or contents?
26. Tell me if the increasing number of readers affect your writing style and contents? How?
27. Did you find anything convenient/inconvenient for you due to the conventions or regulations of the interface of blogs or the blogging website?

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**II. The participants' perceptions of blogging**

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28. In your opinion, what are the differences between online interaction and face to face interaction?
29. What were the factors encouraging you to continue writing blog entries?
30. Did you learn anything from the blogging process? If yes, what were the differences between other teacher development approaches (e.g. workshop) and blogging?
31. Overall, how do you feel about the blogging experiences?
32. Concerning with the blogging experiences/teaching, are there any other things you would like to say?

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**II. The participants' perceptions of blogging**

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33. In your opinion, what are the differences between online interaction and face to face interaction?
  34. What were the factors encouraging you to continue writing blog entries?
  35. Did you learn anything from the blogging process? If yes, what were the differences between other teacher development approaches (e.g. workshop) and blogging?
  36. Overall, how do you feel about the blogging experiences?
  37. Concerning with the blogging experiences/teaching, are there any other things you would like to say?
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## **Interview# 2**

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1. Several months has been pasted since we conducted the first interview, did you perceive any differences of yourself when blogging? (e.g. your attitude, the time you invest in blogging )
  2. Tell me the feelings of restating events/reveal emotions in blog? Did the writing process still benefit you in the past month? In what ways?
  3. Did you still feel being supported by the online community?
  4. Were there any impressive events during these months? What role did blogging play and how did it help you in the events?
  5. Did you ever feel tired during the blogging process and would like to give up? Why did you decide to continue your blogging?
  6. Will you continue to post blog entries in the future? Why?
  7. In your view, do blogs enhance English teachers' development? Do you encourage other teachers to keep blog entries?
  8. In addition to teaching, did blogging help you in any other ways?
  9. What are your current perceptions of blogging? Do you still hold the same attitude and expectations on blogs as what you held at the beginning of your blogging process?
  10. Is there anything else you would like to say?
- 

## **APPENDIX B**

### **Examples of Teacher Learning Practices**

<b>Autobiography (P1)</b>	...Overall, don't escape from your duty no matter what it is. Learn as much as you can when you are not familiar with the work. I believe that with love, patience, a sense of responsibility and the help of other teachers in my school...As my teacher said, education is a lifelong career full of challenges. I will always remember what she told me in her email. It is not easy to pass the Teacher Entrance Exam. If I don't do my job with all my heart, the tiring process of preparation for the exam and my experiences in the summer camps would be nothing but a waste of time.
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<p style="text-align: center;"><b>Inquiry-Based Reflection (P2)</b></p>	<p>Today I had four class periods and the most frustrating one occurred in the class I work in as the homeroom teacher. The main reasons for this class period's failure are the following:</p> <p>1. I wasted too much time arranging the equipment. It took me a lot of time to guide students in drawing the curtain, putting disks in the computers and turning on the projector so that there was little time left in the class period.</p> <p>How to improve: Instead of asking the students to draw the curtain, it would be better if the teacher could show them how to do it at the beginning...</p>
<p style="text-align: center;"><b>Community-Based Interaction (P3)</b></p>	<p>Three years ago, with the help of some enthusiastic teachers, a joint entrance exam for recruiting senior high seniors now exists alongside the junior high school teacher joint entrance exam. Some schools still recruit their teachers individually in order to choose appropriate ones (this is especially true of some prestigious schools, of which few, so far, have taken part in the joint teacher entrance exam). There are many people, though, who would like to know more about skills for passing the teacher entrance exam. Thus, I am going to share my experiences from participating in the exam last year.</p> <p>Because I had failed the exam so many times, I almost lost my confidence. Unlike others who might be on the waiting list if they were not regularly enrolled. I was even not on the waiting list. I was really not good at teaching demonstration, but...</p>
<p style="text-align: center;"><b>Studying Practice (P4)</b></p>	<p>...In the English club, I got the idea what to teach. I can give a RT at the final performance. In kindergarten, I can start from <i>Phonics and Phenemic Awareness</i>. Then, I can add some songs, stories, and picture books...</p>
<p style="text-align: center;"><b>Expert Voice (P5)</b></p>	<p>When we write English compositions, we don't know how we write. What we can do is to find experts or teachers to help us revise them but we don't know our problems. There are several websites helping us diagnose our problems about word use and grammar!! Many people check their theses in these websites. I strongly recommend them!</p>

