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Yu-Chih Sun ^a

^a Institute of Teaching English to Speakers of Other Languages ,
National Chiao Tung University , University Road, Hsin Chu,
Taiwan

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Developing reflective cyber communities in the blogosphere: a case study in Taiwan higher education

Yu-Chih Sun*

Institute of Teaching English to Speakers of Other Languages, National Chiao Tung University, University Road, Hsin Chu, Taiwan

The purpose of this study is to highlight the possibilities and challenges that underlie efforts to integrate blogs into teacher-education programs in Taiwan higher education. The participants were 12 pre-service teachers undertaking Master's level study in Teaching English to Speakers of Other Languages. The outcomes of the blogging project were highlighted in terms of pre-teachers' professional development on the blogs, their difficulties encountered, problem-solving strategies employed, and the students' perception of blogging. The results suggested that blogging could encourage pre-service teachers to actively and reflectively engage in knowledge sharing, knowledge transformation, and knowledge generation. Blogging also encouraged the development of numerous strategies to cope with difficulties encountered in the blogging process. Overall, pre-service teachers held positive attitudes toward blogging as a support for their professional development and were conscious of audience considerations, and so tended to select and respond to blog content deemed interesting and useful to their audience.

Keywords: word; reflective learning; professional development; blogosphere; blogs; teacher education; learning strategies

Introduction

Among several emerging Internet applications, blogs (named also weblogs) have recently become one of the most well-received features of the Web 2.0 era and have fundamentally changed the way we use and contribute information on the Internet. The four characteristics of blogs, as identified by Nardi, Schiano, and Gumbrecht (2004), include personal editorship, hyperlinked post structure, strong archival features, and public access to the content. Blogs thereby help develop collective intelligence among users (Richardson 2006; Warlick 2005). The connective nature of blog writing that invites people to share, to create, and to connect on the blog changes dramatically our perspective of Internet-related possibilities (Richardson 2006; Warlick 2005).

The pedagogical use of blogging is grounded in Vygotsky's theory of social constructivism and scaffolding (Huann, John, and Yuen 2005). Blogs enhance the frequency and intensity of knowledge conceptualization, foster reflective learning, and knowledge generation through social interaction and meaning making (Oravec 2002, 2003), and promote the shift from surface to deep learning and diverse perspectives (Instone 2005; Warlick 2005). The archiving of blog entries provides a

*Email: sunyc@mail.nctu.edu.tw

space where self-expression and commentary can be organized easily and thus, the rapidly evolving discussions can facilitate bloggers' synthesis of their learning and of their reflection regarding blog content (Richardson 2006). Furthermore, by focusing reading and writing on one topic, bloggers are able to delve further into the topic and to develop topic-specific expertise in a particular subject area (Richardson 2006). Effective use of blogs encourages the development of individual and critical voices and prompts individual accountability in learning (Du and Wagner 2007).

Effective use of blogs also fosters social engagement and knowledge sharing by connecting learners to contexts beyond the classroom and, thus, encourages social knowledge construction (Du and Wagner 2007). By quoting and commenting on each other's blog posts, blogs foster the collaborative process of learning, which is particularly effective for students who are trying to negotiate meaning (Godwin-Jones 2003). The process of open expression nurtures the interconnecting of ideas, arguments, and theories between bloggers, fosters free exploration and discovery, and helps create a sense of a learning community that extends the discussion beyond the classroom and eventually allows for enhanced comprehension of knowledge (Baggetun and Wasson 2006).

Blogs are one of the emerging technologies offering opportunities for implementing student-centered pedagogical practice (Instone 2005). As indicated by Du and Wagner (2007), when people's identities are known, they tend to be more committed and autonomous in learning. Writing publicly on the blogs encourages ownership and responsibility on the part of students in various respects (Krause 2004). Through blogging, students take ownership of a given space and the work they publish on it – an outcome that replaces traditional acts of passive information consumption with acts of active information creation (Baggetun and Watson 2006; Godwin-Jones 2003; Oravec 2002; Richardson 2006; Warlick 2005).

Blogging is itself a very effective learning process that leads to learner autonomy (Baggetun and Wasson 2006; Oravec 2003). The openness and the collective nature of blogs encourage students to post solutions to the problems they were struggling with. The self-publishing nature of the blogs fosters responsibility on the part of the students who know they own the space and are writing for a real audience over the Internet. As Godwin-Jones (2003) noted, students are more thoughtful in terms of content and structure in the blogosphere; the same degree of personal responsibility is absent in discussion forums.

Studies indicate that the regular and extended cycle of writing, publishing, reading, and discussing on the blogs can decrease feelings of isolation (Dickey 2004), reduce anxiety about writing publicly (Sade 2005), and provide emotional support for learners (Kerawalla et al. 2008). Even though in Lenhart and Fox's (2006) report, 52% of bloggers report that they blog mostly for themselves, not for an audience, students still tend to be more careful in their writing when they are writing for a larger audience (Huann, John, and Yuen 2005). Some are extremely conscious of audience considerations and contemplate how others might interpret and reflect upon their views and, thus, select and respond to Internet materials deemed interesting and useful to their audience (Oravec 2003).

Even though blogs are emerging in many educational contexts, most studies on the integration of blogs into teacher development are based on anecdotal evidence or only focus on its conceptual fit with learning theories. Thus, the current study aims to

explore the dimensions of teacher knowledge, teacher beliefs, teacher thinking, and decision-making through blogging in the hope of better understanding teacher behavior and teacher thinking. Specifically, the research questions for the study are as follows:

- (1) What sorts of learning behaviors did the pre-service teachers demonstrate during a blogging task?
- (2) What are the challenges that pre-service teachers face and what problem-solving strategies do they employ?
- (3) What are pre-service teachers' perceptions about blogging as a means for professional development?

Method

Participants

The participants were 12 pre-service teachers (two males and 10 female) enrolled in a Masters' program in Teaching English to Speakers of Other Languages (TESOL) at a university in Taiwan. The pre-service teachers' ages ranged from 23 to 25. At the time of the study, these pre-service teachers were taking one-semester required course – TESOL Research and Methodology, which aimed to introduce pre-service teachers to the basics of the theory and practice in TESOL.

Procedures

The blogging project was integrated into the course to serve as a forum where pre-service teachers could reflect upon their knowledge gains regarding theory and practice and could share their feelings and ideas about being a language teacher. The pre-service teachers were first expected to set up an online blog by choosing a blog service of their preference.

Pre-service teachers were asked to submit at least 30 blog entries for a whole semester and as well as at least 30 comments to classmates' blog posts. During the course, there were also face-to-face in-class discussions and sharing of gains, frustration, and insights regarding pre-service teachers' blogging experiences. In the mid-term and final-exam weeks, the pre-service teachers had to complete a self-evaluation and peer-evaluation form and had individual face-to-face interviews with the instructor.

Data collection and analysis

The research used a triangulation data-collection method, including (1) collecting content shared on the blogs; (2) administering survey; and (3) conducting semi-structured interviews. Open-coding and content analysis were performed to answer the first research question by identifying concepts revealed in the content shared on pre-service teachers' blogs, then the data were aggregated into sub-categories. The interview and survey served to answer the second and third research question regarding the difficulties that pre-service teachers face, the problem-solving strategies

they employed, and their perceptions about blogging as a means for professional development.

A 25-item blogging survey was developed to examine pre-service teachers' perceptions and blogging processes (see Appendix). The first part of the survey contains 10-item five-point Likert-scale questions focusing on pre-service teachers' perceptions of blogging (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree). The purpose of the questions was to evaluate pre-service teachers' perceptions of goal attainment, self-efficacy, and knowledge sharing. The second part contained 15 questions regarding background information, such as previous and current working experience, blogging experience, availability of Internet access at home, blogging behavior, and ways of promoting the blogs.

The interviews were conducted as a follow-up in-depth investigation of the difficulties that pre-service teachers face, their problem-solving strategies, and their perceptions about blogging as a means for professional development.

Results and discussion

Descriptive statistics about the participants' background

Eleven out of 12 pre-service teachers in the study had been working part-time as English teachers in a wide variety of contexts, including bilingual kindergartens, cram schools, and tutoring. Seven of them had established their own blogs prior to taking the course. Of these seven pre-service teachers, only one had a blog in order to fulfil the course requirement; the rest of them had set up their own blog due mainly to their interest in blogging. One pre-service teacher chose a blog service with a charge, whereas the rest of them chose free blog services. Only two pre-service teachers reported encountering technical difficulties in blogging. Only one participant did not have a computer at home and had to write the blog in a computer lab at the school, whereas the rest of them wrote blogs at home or in the dormitory. Nine out of 12 of the pre-service teachers had computer-assisted learning experience. Eight of them reported that they enjoyed ($N = 2$) or enjoyed very much ($N = 6$) surfing on the Internet in their leisure time. Eight of them reported that it is possible ($N = 4$) or very possible ($N = 4$) that they would continue the blogging project after the course ends. Ten out of 12 participants used the default layout design provided by the blog service. They reported incorporating various multimedia formats in their blogs, including text ($N = 12$), audio ($N = 5$), video ($N = 8$), images ($N = 8$), and PowerPoint slides ($N = 2$).

Descriptive statistics about blog entries

Table 1 summarizes the descriptive statistics of pre-service teachers' blog entries. A total of 523 blog entries were updated by the 12 pre-service teachers over a semester period of time. The number of entries per pre-service teacher ranged from 23 entries to 98 entries. Of all the blog entries, 319 (60%) concerned language teaching and learning. A total of 575 comments were received, with an average of 47.92 comments per student, ranging from 6 to 122 comments. Regarding the number of views to the blogs, the total number of views was 14,738, with a minimum of 235 views on a blog and a maximum of 3627 views on a blog.

Table 1. Descriptive statistics of students' blog entries.

Students	Total number of blog entries	Course-related blog entries	Number of comments received	Number of views
A	62	10	38	3043
B	98	69	16	3627
C	42	30	17	633
D	30	30	32	505
E	51	16	41	856
F	30	23	6	235
G	40	34	41	450
H	30	25	24	544
I	51	20	93	2807
J	30	30	122	805
K	36	18	116	871
L	23	14	29	362

Research question 1: what sorts of learning behaviors did the pre-service teachers demonstrate during a blogging task?

The study used content analysis of the blog entries to illustrate pre-service teachers' professional development. The study categorized the data through concept discovery and concept definition. Table 2 summarizes the categorization that emerged in the study.

Table 2. Categorization of presentation of professional development in blogging.

Categorization	Description
Activating prior knowledge	Activating and articulating prior knowledge (ideas, beliefs about teaching, and what students are capable of), e.g., reflecting upon what they have learned in undergraduate courses
Reshaping ideas	Reshaping existing ideas (beliefs, values, etc.) through extensive reading and sharing of ideas about language teaching on the blogs, e.g., describing how their beliefs have been changed as a result of the input received in the class
Knowledge transmission	Presenting teaching content by sharing teaching-related materials (e.g., lesson plans, PowerPoint files), by searching for and categorizing useful links, by copying and pasting original articles related to TESOL and by commenting on them, by recommending useful items (e.g., books, training courses), and by presenting feedback (e.g., on training courses)
Knowledge transformation	Engaging in in-depth reflection on the nature of language learning and language teaching, e.g., how do different teaching approaches influence second-language acquisition?
Interaction	Interacting with other bloggers by asking questions, answering questions, and clarifying and confirming various points
Contextualization	Drawing on contextual information about students, curriculum, school cultures, and policies; and applying theory learned in the class to practice
Miscellaneous information	Sharing of English jokes, photos, hobbies, job information

The information included in Table 2 align well with the results of previous studies that blogs foster reflection and analysis on the part of the students, encourage revisiting and revising of learned concepts (Williams and Jacobs, 2004), enable the sharing of resources and opinions through exchanging interesting new URLs with their peers, and foster forming and maintaining knowledge communities (Kerawalla et al. 2008; Oravec 2003).

Research question 2: what are the challenges and the problem-solving strategies that pre-service teachers employed in their blogging process?

The results of the study revealed not only several challenges encountered by the pre-service teachers, but also strategies developed by them in their blogging process.

Time management

As Oravec (2003) mentioned, updating entries on the blogs periodically is one of the most important characteristics of blogging. However, the findings showed that lack of time to write was one of the most commonly identified difficulties.

The problem is further compounded by the pre-service teachers' rush and intensive efforts in updating blogs near the deadlines. One student explained, 'I blog only when I'm in the mood for blogging. I don't have the habit of writing or keeping a diary, so I blog only when a deadline is approaching'.

Pre-service teachers in the study reported finding help with this problem by experimenting with and exercising effective strategies that can enhance the productivity of blogging. Several pre-service teachers acknowledged in the interviews that deadlines positively affected their planning of schedules. Some of these pre-service teachers even considered a deadline as a 'positive inspiration'. As one student stated:

In the beginning, I was very cautious about every entry I wrote on my blog. It almost took me an hour to write just one entry. But when I realized that the deadline was approaching and that I couldn't keep writing this way, my writing suddenly became very fluent and productive. And I found that I've felt more comfortable writing blogs since then. (Student L)

In their already hectic schedule, many pre-service teachers learned to set a specific time to write their blogs. As one student commented:

I found that in order to push myself to blog regularly, I need to set a specific time for blogging. I also found that the top 100 bloggers on the Internet all update their blog on a regular basis. It is important to provide new insights constantly when it comes to blogging. (Student B)

The results are in line with previous studies show that producing a blog on a regular basis is challenging due to time pressure (Kerawalla et al. 2008; Oravec 2003) and demand for high-quality posts (Instone 2005). The current results of the study, nevertheless, highlighted several effective strategies used by the pre-service teachers to overcome the challenge, such as exercising time-management skills and thinking positively about the deadline.

Blogger's block

All the 12 pre-service teachers in the study commented in the interview that having 'blogger's block', a phenomenon involving temporary loss of ability to begin or continue writing, usually due to lack of inspiration, is another common difficulty in blogging. As one student commented:

I do have some reflections, especially right after teaching a class, but I always feel so tired after teaching a class that I go to bed directly, without jotting down those ideas first. Then the next day, I always forget what to write, or the feeling just faded away, and it becomes so hard for me to squeeze things out of my mind. (Student L)

To solve the problems of blogger's block, pre-service teachers in the study came up with several solutions, such as searching for information on Google, or undertaking extensive reading on issues related to language teaching and learning. One student's comments are representative of this effort:

I found that note-taking is useful to remind me what I can post on my blog. In addition, I try to find topics from textbooks and articles, and I combine different sources of information to create my own perspective or even post questions on my blog for help, like seeking help for computer technical support. (Student F)

Other pre-service teachers commented that it was always useful to write down titles on blogs first and, later, to find time to complete the content. In addition to writing blog entries, pre-service teachers shared valuable information on their blogs: pre-service teachers provided valuable links, first-hand information, such as conference updates, notes on attending training seminars or talks, or even photos or video clips of conference events and activities.

The results corroborate with previous studies that the open-ended nature of blogs could be vague to the students (Krause 2004) and many of the students expect more structure, more facilitation, more prompting, and even specific questions to respond to (Instone 2005; Krause 2004). However, the current study reported that even without teachers' involvement, the pre-service teachers still can autonomously develop strategies that help pre-service teachers to cope with the challenges and produce quality posts.

Attracting outside audiences

The participants in the study seem to show strong motivation to obtain 'celebrity status' by creating blogs that are followed by large number of readers on the Internet. As one student put it:

I don't consider it worth the trouble to write on the blog just for myself. If I didn't get a big enough audience to read my blogs, I'd feel nobody would really care about the blog and I wouldn't see the point of putting all this effort into writing it. (Student B)

The pre-service teachers in the study actively tried numerous ways to promote their blogs and, thereby, make their blogs more visible. These included notifying their friends and students about their blogs as well as placing their blog URLs on various online channels, such as on MSN, on their email signature, on a bulletin board service, on others' guestbooks, on others' blogs, on professional language-teaching

websites, and on free advertisement media. Pre-service teachers even tried to post answers to questions on Yahoo Answers (<http://www.yahoo.com.tw>) so that they could include their blog URL with their entry.

In addition to advertising one's blog, pre-service teachers commented on ways to increase their own blog's popularity by enhancing the quality of their blogs' content. Means to this end included providing useful and practical information to others, setting up interesting categories (such as weekly book recommendations or job columns) on their blogs, adding more pictures and PowerPoint files on the blog, using eye-catching titles for the entries, writing on some gossipy or taboo topics to arouse readers' interest, uploading personal photos, such as pet photos or wedding photos, and even purposefully typing in some popular terms on the blog so that web surfers could more easily run across the blog. The results corroborate with a study showing that students tend to adopt an engaging style of writing by including humor in their writing (Kerawalla et al. 2008).

Pre-service teachers also identified one important factor in boosting their blogs' popularity, that is, regular updates. As quoted, one student declared:

I found that in order to keep people interested in your blog and coming back, you have to provide new information at least twice a week. I found that if I keep updating my blog, the number of visitors will increase. If I don't post for a few days, the number of visits will drop immediately. (Student B)

Affective challenges

A blogging project, as the current study indicates, incurs the characteristics of openness, interaction, and periodical maintenance that can lead to a certain degree of anxiety on the part of bloggers. Thus, bloggers often find themselves having a sense of insecurity in revealing themselves on-line, feeling uncomfortable in promoting their blogs, or even failing to see the purpose of blogging. As two pre-service teachers put it:

I am afraid to reveal too much information about myself in cyberspace. As a shy person inherently, exposing my feelings and thoughts on-line makes me feel insecure. In this way, the blogging process is like a continuous breakthrough for me. (Student E)

Sometimes, I can't see the purpose of updating my blog when I see other blogs with at least 5000 or 6000 visitors per day – more than what I could have accomplished over one semester's period of time. This kind of comparison upsets me and strengthens my skepticism about the meaning of my blogging efforts. (Student B)

Pre-service teachers' initial anxiety about writing publicly on the blogs seems to reduce over time. As pre-service teachers stated:

In the beginning, I considered blogging only a course assignment, so I wrote it carefully and spent lots of time on each entry. Recently, I've been trying to be more relaxed, trying to look at it as my personal space and it feels better this way. (Student L)

Originally, I felt awkward sharing my feelings or thoughts on the Internet. I felt that the ideas that I was sharing on the blog were very private, and I felt a little bit uncomfortable about posting them on the blog. Then, after a few weeks, I feel much better. It takes time to adjust to the new culture and environment. (Student E)

In addition, momentum was also a problem. Since the blogging project was a semester-long task in which pre-service teachers had to update their blogs on a regular basis, they came up with a variety of strategies to maintain their drive. They did so by helping others, by developing an identity with their own blogs, by setting goals and rewarding themselves, or even by having a long-term vision for their blogs. As pre-service teachers stated:

Thinking about the possibility of publishing a book from my blogs serves as an incentive for me to write more and write better. (Student B)

As one study has indicated, students tend to be more careful in writing publicly on the Internet (Huann, John, and Yuen 2005). The public nature of the blog could make it a risky space in which others might examine their values or views and, thus, cause insecurity and discomfort on the part of the writers (Instone 2005). However, the participants in the study learned to encourage themselves and find enough value from the blogging experience to overcome their insecurity.

Research question 3: what are the pre-service teachers' perceptions of blogging?

Regarding pre-service teachers' perceptions about the values of blogging for professional development, as a result of the interviews, the following themes emerged.

On-line teaching portfolio

The results of the study indicated that blogs enable pre-service teachers to view the progress of their own writing efforts. This view is in line with the findings of previous studies (Groom and Maunonen-Eskelinen 2005; Lankshear and Knobel 2003) that blogging enables learners to keep track of their own learning history and encourages them to reflect on their own learning process. As they put it:

I appreciate the fact that I have an online public space to urge myself to keep records, which I otherwise might not even bother to do if I hadn't got this blog specifically for TESOL. (Student D)

Connecting and cooperating with others

The pre-service teachers considered the blogs a valuable space to communicate with others through means of replying to messages, sharing knowledge, and connecting with others. As they put it:

I learn the most from replying to others' questions on my blog. (Student B)

On the blogs, I can interact with my students. They can express their opinions about me, give me some suggestions, and ask questions. Parents can also get information about how I teach and what happens in the classroom. (Student A)

All comments received on my blog are replied to within 24 hours. I think feeling needed is the most important reason for me to blog. I am more enthusiastic about responding to others' requests on my blog than I am about updating new blogs. (Student B)

The results of the study are in line with previous study that the pressure of the audience and the writer's consciousness of the audience combined bring social aspects into the solitary activity of blogging (Nardi, Schiano, and Gumbrecht 2004).

Blogger's identity

The results of the study revealed that the pre-service teachers seemed to be very conscious of audience considerations, selecting and responding to content deemed interesting, and useful to their readers. They sometimes struggled between what the blogs meant to them and what the blogs meant to others. Other pre-service teachers seemed to hold high expectations for the impact of their blogs. One student commented on these expectations: 'I hope to become a valuable member in the cybersphere'. In this sense, these pre-service teachers cared a lot about what their blogs meant to others or even seemed to judge the value of their blogs by their popularity. As one stated:

If your blog is popular, then you are somebody. If your blog is not popular, then you're nobody in the blogosphere. Popularity is a criterion to judge the quality of a blog.
(Student A)

Also, to make the blogs more valuable, pre-service teachers discovered the importance of innovation. As one student commented, 'In the blogosphere, originality is more valuable than linking to or citing somebody else's document'.

As Mortensen and Walker (2002) indicated, there is always a tension between private and public spheres in blogging. The results of the study also revealed pre-service teachers' struggles with the boundaries between writing for oneself and for one's readers.

Conclusion

The results of the study revealed that blogs provide powerful organizational forums for online expression. Pre-service teachers in the study considered blogs not only a place to share their reflections on theories and practices in language teaching, but also a way of interacting with readers on-line. To this end, the pre-service teachers made enormous efforts to establish their space in the blogosphere by making their blogs meaningful to others, not just to themselves. The findings of the study are in line with previous studies in which blogging allowed students to participate actively as knowledgeable, reflective, creative, and critical members in cyber communities (Baggetun and Wasson 2006; Richardson 2006).

Pedagogical implication

The results of the study revealed that the pre-service teachers herein expected more frequent discussion in the class about the progress of each other's blogging and welcomed more feedback from their classmates about their blogs on cyberspace. More frequent sharing and discussing about blog efforts could be beneficial for not only boosting motivation and serving as a check point for both pre-service teachers and teacher, but also serving as a strengthener of ideas. In addition, while reinforcing

individual effort and accountability, teachers can also adopt a group blog into the curriculum so that it can foster collective knowledge construction and cooperation.

As the participants in the study were highly motivated learners undertaking Master's level study, similar blogging behavior might not be observed with younger and/or less experienced learners. More support might be necessary for teachers who try to integrate blogs into classes with younger or less experienced learners. That is, it could be necessary to give more instruction on how to create a good post, what information to include, and how to give constructive feedback and respond to feedback.

Recommendations for future research

The participants in the study showed strong inner conflict between blogging for oneself and blogging for readers on the Internet. Further research on issues regarding student-blogger's identity in the blogosphere and its impact on learning outcome will be worth investigating. In addition, several studies argued that there is limited interactivity in blogging (Nardi, Schiano, and Gumbrecht 2004). Further research on the extent and types of conversation or discussion the blog would engender or inhibit could further benefit our understanding of knowledge construction and transformation on the blog. Previous studies requiring less frequent blog posts show some uncertain blogging effects due to their open and vague nature and learner anxiety (Du and Wagner 2007; Krause 2004). However, the current study, with more frequent required posts, revealed pre-service teachers' active participation and strategy use, and lower anxiety about blogging. Much work still needs to be done to identify the best methods of using blogs for educational purposes, such as the optimal frequency of required blog updates, and the age and experience of learners in question.

In summary, the results of the study allow for rethinking the roles that blogs can play in teacher training and teacher development, and how human-computer interaction, now an inevitable reality, can be judiciously incorporated into our pedagogic decisions.

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References

- Baggetun, R., and B. Wasson. 2006. Self-regulated learning and open writing. *European Journal of Education* 41: 453–72.
- Dickey, M. 2004. The impact of web-logs (blogs) on student perceptions of isolation and alienation in a web-based distance-learning environment. *Open Learning* 19, no. 3: 279–91.
- Du, H.S., and C. Wagner. 2007. Learning with weblogs: Enhancing cognitive and social knowledge construction. *IEEE Transactions of Professional Communication* 50, no. 1: 1–16.
- Godwin-Jones, B. 2003. Blogs and wikis: Environments for on-line collaboration. *Language Learning and Technology* 7: 12–6.
- Groom, B., and M. Maunonen-Eskelinen. 2005. The use of portfolios to develop reflective practice in teacher training: A comparative and collaborative approach between two teacher training providers in the UK and Finland. *Teaching in Higher Education* 11, no. 3: 291–300.

- Huann, T., O. John, and J. Yuen. 2005. *Weblogs in education*. IT literature. http://edublog.net/astinus/mt/2005/09/weblogs_in_educ.html (accessed October 30, 2008).
- Instone, L. 2005. Conversations beyond the classroom: Blogging in a professional development course. Paper presented at the ASCILITE conference, in Brisbane, Australia, 4–7 December.
- Kerawalla, L., S. Minocha, G. Kirkup, and G. Conole. 2008. Characterizing the different blogging behaviors of students on an online distance learning course. *Learning Media and Technology* 33, no. 1: 21–33.
- Krause, S.D. 2004. *When blogging goes bad: A cautionary tale about blogs, email lists, discussion, and interaction*. <http://english.ttu.edu/kairos/9.1/binder.html?praxis/krause/index.html> (accessed August 18, 2007).
- Lankshear, C., and M. Knobel. 2003. *Do-it-yourself broadcasting: Writing weblogs in a knowledge society* (ED478120). Paper presented to the American Education Research Association Annual Meeting, Chicago, April 21.
- Lenhart, A., and S. Fox. 2006. *Bloggers. A portrait of the internet's new storytellers*. Report for Pew Internet and American Life Project. Washington, DC: The Pew Charitable Trust.
- Mortensen, T., and J. Walker. 2002. Blogging thoughts: Personal publication as an online research tool. In *Researching ICTs in context*, ed. A. Morrison, InterMedia Report. Oslo, Norway: InterMedia University. http://imweb.uio.no/konferanser/skikt-02/docs/Researching-ICTs_in_context-Ch11-Mortensen-Walker.pdf (accessed May 18, 2010).
- Nardi, B.A., D.J. Schiano, and M. Gumbrecht. 2004. Blogging as social activity, or, would you let 900 million people read your diary? In *Proceedings of the 2004 ACM conference on computer supported cooperative work*, 222–8. New York: ACM Press. <http://home.comcast.net/%7Eediane.schiano/CSCW04.Blog.pdf> (accessed May 18, 2010).
- Oravec, J.A. 2002. Bookmarking the world: Weblog applications in education. *Journal of Adolescence & Adult Literacy* 45: 1081–3004.
- Oravec, J.A. 2003. Blending by blogging: Weblogs in blended learning initiatives. *Journal of Educational Media* 28, nos. 2–3: 225–33.
- Richardson, W. 2006. *Blogs, wikis, podcasts, and other powerful web tools for classrooms*. Thousand Oaks, CA: Corwin Press and Sage.
- Sade, G. 2005. Weblogs as open constructivist environments. Paper presented at the BlogTalk Downunder conference, in Sydney, Australia, 19–22 May.
- Warlick, D. 2005. *Classroom blogging: A teacher's guide to the blogosphere*. The Landmark Project. Raleigh, NC: Lulu.com.
- Williams, J., and J. Jacobs. 2004. Exploring the use of blogs as learning spaces in the higher education sector. *Australasian Journal of Educational Technology* 20, no. 2: 232–47.

Appendix. Blogging for Teacher Development Survey

1. Strongly disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly agree

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|--|---|---|---|---|---|
| 1. I feel frustrated about not knowing what to write on my blog | 1 | 2 | 3 | 4 | 5 |
| 2. I would like the teacher to assign writing topics for the blog | 1 | 2 | 3 | 4 | 5 |
| 3. I am confused about the purpose of writing a blog | 1 | 2 | 3 | 4 | 5 |
| 4. It is helpful for me to read my classmates' blogs | 1 | 2 | 3 | 4 | 5 |
| 5. The blog assignment makes me feel stressed | 1 | 2 | 3 | 4 | 5 |
| 6. The blog assignment encourages me to think about issues related to TESOL | 1 | 2 | 3 | 4 | 5 |
| 7. It is difficult for me to find time to write on the blog regularly | 1 | 2 | 3 | 4 | 5 |
| 8. The blog assignment allows me to understand my classmates' views on TESOL | 1 | 2 | 3 | 4 | 5 |
| 9. I experienced a change in attitude about the blogging project over the course of the semester | 1 | 2 | 3 | 4 | 5 |
| 10. I am satisfied with my performance on the blog | 1 | 2 | 3 | 4 | 5 |

Demographic information

11. What is your previous work experience? _____
12. What is your current work? _____
13. Have you written a blog before?
 Yes No
14. If yes, under what circumstance did you set up the blog?
 course requirement personal interest other
15. Did you encounter any difficulties in setting up the blog?
 Yes No
16. If yes, what were the difficulties?

17. Do you have to pay for blog service?
 Yes _____ dollars per _____ No
18. Do you own a computer?
 No Yes (with Internet access without Internet access)
19. Where do you usually write when posting on your blog?
 at home or in the dormitory at a computer lab in school type on a word processor and then find a computer with Internet access to upload the files onto the blog
 other _____
20. Do you have any experience in learning via computer or Internet? Please briefly describe your experience.

21. Do you like to surf on the Internet in your leisure time?
 strongly dislike dislike neutral like strongly like
22. What is the likelihood for you to continue writing the blog after the course ends?
 very unlikely unlikely neutral possible very possible
23. In what ways do you promote your blog?

24. Do you use the default layout provided by the blogging service or design your own layout?
 default self-design
25. What are the multimedia formats incorporated in your blog?
 text audio video other _____