

## **“Because I Know How to Use It”: Integrating Technology Into Preservice English Teacher Reflective Practice**

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### **Abstract**

This article examines the role of technology in preservice teacher reflection. Situated in informal reflection (Shoffner, 2008), preservice English teachers' choice of a specific technology medium for reflective practice is examined for satisfaction with their choice and understanding of that medium's influence on their reflection. The implications of the preservice English teachers' views on technology use for reflection are then explored, with attention to the choice of "easy" forms of technology and the elements of journal length, choice of expression, and audience awareness in reflective practice.

Reflective practice is an accepted component of today's teacher education programs. Teacher educators seek to integrate various forms of reflective practice throughout teacher preparation, acknowledging that reflection supports teachers' ability to analyze issues of teaching and learning from differing perspectives, as well as their efforts to make changes to practice and belief (Calderhead, 1992; Zeichner & Liston, 1996). Opportunities abound for reflection in teacher education, from formal papers on assigned topics to collaborative discussions on educational experiences.

One of the most common forms of reflection, however, is that of the reflection journal (Bain, Ballantyne, Packer, & Mills, 1999; Francis, 1995; Spalding & Wilson, 2002). Reflection journals allow preservice teachers to “clarify and extend individual thoughts and concerns and provide...a means of consistently supporting...inquiry into their development as learners and teachers” (Collier, 1999, p. 174). Boud (2001) also supports the use of journals for reflection, explaining that

in learning terms, the journal is both the place where the events and experiences are recorded and the forum by which they are processed and re-formed. This working with events is intended as a way to make sense of the experiences that result, recognize the learning that results, and build a foundation for new experiences that will provoke new learning. (p. 10-11)

Electronic reflection is also relatively commonplace in teacher education programs. With variations on the implementation, teacher educators are incorporating different forms of technology into reflective practice, with implications for both preservice teachers’ reflection and their understanding of technology (Germann, Young-Soo, & Patton, 2001; Koszalka, Grabowski, & McCarthy, 2003; Romano & Schwartz, 2005). The integration of reflection and technology supports the recognized need to develop technologically proficient teachers who can meet the demands of today’s classrooms (Bell, 2001; McVee, Bailey, & Shanahan, 2008; Russell, Bebell, O’Dwyer, & O’Connor, 2003). To do so, Mishra and Koehler (2006) have noted that teachers must develop pedagogical understandings of technology application to subject-specific instruction. Preservice teachers must have multiple opportunities to engage meaningfully with various forms of technology connected to classroom practice, student learning, and personal development during their university preparation (Bird & Rosaen, 2005; Dexter & Riedel, 2003; Lock, 2007).

Meaningful engagement with technology during preparation supports preservice teachers in their efforts to develop the technological pedagogical content knowledge (or technology, pedagogy, and content knowledge [TPACK]; Mishra & Koehler, 2006) needed to understand “complex relationships between technology, content, and pedagogy and [use] this understanding to develop appropriate, context-specific strategies and representations” (p. 1029) in their future teaching.

English language arts education is no exception. English teacher educators incorporate varied reflective assignments (Margolis, 2002; Stockinger, 2007) and diverse technologies (Grabill & Hicks, 2005; Singer & Zeni, 2004; Young & Bush, 2004) throughout secondary English teacher preparation.

As Swenson (2006) noted, English teachers must understand both how to use different forms of technology in the classroom and the possibilities and limitations created by that use. In order to examine critically the affordances and constraints of technology in the classroom, however, English teachers must be able to reflect on the use of technology to support their teaching and students’ learning (Shoffner, 2007). Engaging

preservice English teachers with reflection and technology, separately and collaboratively, supports the goal of developing English teachers who can effectively address the diversity of issues that arise in the teaching of English language arts.

The integration of technology into reflective practice, however, encourages teacher educators to consider the role of technology in preservice teacher reflection. As Mishra and Koehler (2006) explained, “Technologies often come with their own imperatives that constrain the content that has to be covered and the nature of possible representations” (p. 1025). Several questions arise when considering the constraints and possibilities offered by the use of different forms of technology in reflection. Which technology medium is likely to be used for reflective practice when preservice teachers have a choice? How do preservice teachers view the specific technology medium they choose for reflection? How might the technology medium chosen influence preservice teacher reflection?

As an English teacher educator, I chose to explore these questions in a secondary English methods course by integrating technology into a reflection journal assignment. Preservice English teachers’ choices of specific technology media for reflective practice were examined for satisfaction with their choice and understanding of the medium’s influence on their reflection. The implications of the preservice English teachers’ views on technology use for reflection were then explored, with attention to the choice of “easy” forms of technology and the elements of journal length, choice of expression, and audience awareness in reflective practice.

### **Informal Reflection in the Methods Course**

From fall 2006 to spring 2008, I taught a secondary English methods course as a required component in the English Education teacher preparation program of a large public university in the midwestern United States. In the methods course, preservice English teachers explored a range of issues related to the teaching and learning of English language arts through class discussions, course readings and assignments, and a required 20-hour practicum in the local schools. One specific component of the course was a reflective journaling assignment situated in informal reflection (Shoffner, 2008).

Informal reflection is defined by the elements of practical theory, flexible structure, personal expression and communal interaction (Shoffner, 2008). In informal reflection, individuals are encouraged to draw on past experiences and current beliefs to interrogate their understanding of teaching and learning. Rather than structuring the resulting reflection through specific guidelines or explicit questions, reflection remains flexible, with gaps and variations in the final product allowed. The flexibility of informal reflection also extends to the form of reflection; the final product is not limited to a specific format or medium.

The inclusion of the affective domain is also allowed in informal reflection; personally meaningful topics and the resultant emotions attached to them are accepted as personal forms of expression. Lastly, informal reflection encourages collaborative communication during

reflective practice, since “interaction with others offers alternative meanings, encourages new understandings and provides support to engage” in reflection (Shoffner, 2008, p. 129).

### **The Assignment**

In the methods course, preservice English teachers’ reflective practice was developed through an informal reflection journal. This course component required preservice teachers to submit a weekly reflection throughout the semester, for a total of 12 reflections per student. Drawing on informal reflection’s use of practical theory and personal expression, preservice teachers were free to determine their topics for reflection, as well as the length of their journal entries. As discussed in the methods course, any topic was acceptable if it contributed to understandings of and questions on the teaching and learning of English.

The preservice English teachers created and maintained their reflection journals using their choice of technology medium. In keeping with informal reflection’s flexibility, no specific medium was required; like the topic and length of the journal entries, this decision was open to individual choice. No technical instruction was provided for the preservice teachers, either, as they possessed familiarity with appropriate technology media from a required educational technology course taken earlier in their preparation program.

Communal interaction, informal reflection’s fourth element, was somewhat limited, in that the preservice English teachers were not required to share their reflection journals with an outside audience other than me (the professor for the course). They did have the option, however, of choosing a public medium that allowed for a wider audience; they could also share their reflection journals with classmates if they wished. A degree of communal interaction did take place, however, as I replied to each of the preservice teacher’s weekly journal entries. To support and scaffold preservice teachers’ reflections, these responses took the form of supportive comments, challenging questions, alternative interpretations, and suggestions for additional reading. The reflection journal entries were evaluated for completion only.

### **Considering Technology in Informal Reflection**

To explore preservice English teachers’ views on the integration of technology into reflective practice, I administered midsemester and end-of-semester evaluations in the methods course in fall 2006, spring 2007, fall 2007, and spring 2008. Both evaluations focused on the preservice teachers’ views of the technology medium chosen for their informal reflection journal.

Fifty-eight preservice English teachers completed one or both of the midsemester and end-of-semester evaluations, for a total of 115 evaluations. Fifty-five of the preservice teachers were undergraduates completing an English Education major leading to a bachelor’s degree and secondary English teacher licensure. Three preservice teachers were postbaccalaureate students seeking secondary English licensure only or licensure in addition to master’s degrees.

On the evaluations, the preservice English teachers were asked to identify the electronic medium used for their informal reflection journal. They were then asked to provide the reason for their choice of medium, identify their level of satisfaction with that choice, and explain their level of satisfaction. Additionally, on the end-of-semester evaluations only, the preservice teachers were asked to consider the influence of their chosen medium on their reflective practice.

Self-reported responses on the evaluation serve as the main data set for the study. The collected responses were analyzed at the conclusion of the spring 2008 semester for convergent themes and repeating patterns, which were, in turn, interpreted to offer explanations and consider meanings (as in Patton, 2002). Reflection journal entries are a secondary source of data, providing illustrative context and explanation to support the implications and conclusions emerging from the analysis of the main data set.

### **Choosing a Technology Medium**

Of the various technology media the preservice English teachers could use for their informal reflection journals, they chose one of the following: an individual weblog, a personal webpage, a direct email to the professor, or electronic submission of a Microsoft Word document via email. It is important to note that the preservice English teachers were not limited to these particular forms of technology. The parameters of the assignment allowed the use of any technology medium for the reflection journal. In keeping with extended views of literacy, the preservice teachers were free to create journals consisting of or incorporating visual or auditory components, such as video blogs or podcasts. The forms of technology chosen for the assignment were familiar to the preservice teachers, however, either through personal use or university preparation. The teacher education program of study requires an introductory educational technology course in which these common forms of technology are addressed, if not also used.

Although each of the four technology media was used every semester, electronic submission of a Word document was the most popular choice overall. Thirty-six of the preservice teachers chose an emailed Word document for their reflective journal, while 15 preservice teachers chose an individual weblog, the second most popular choice. Only four preservice teachers chose to use a direct email to the professor for their reflective practices, while three preservice teachers created and used a personal webpage. A semester breakdown of the preservice teachers' technology choices is presented in Table 1.

The evaluations asked the preservice English teachers to explain why they chose to use a specific technology medium for their informal reflection journal. The most common response stated that their choice was determined by what was easy. The preservice teachers wanted to use a technology medium that offered the least difficulty for them. The words "easy" and "easiest" and the phrases "easiest for me" and "easiest way" appeared consistently in their responses. This viewpoint applied regardless of the technology medium chosen. Although no medium was singled out as particularly difficult, the preservice teachers clearly saw their specific choice of technology medium as the least problematic.

**Table 1**  
Semester Breakdown of Preservice Teachers' Technology Choices for Reflective Practice

	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Total
<b>Email</b>	1	0	2	1	4
<b>Weblog</b>	10	1	3	1	15
<b>Webpage</b>	1	1	0	1	3
<b>MS Word</b>	9	6	14	7	36

Through their responses to the question, "Why did you choose this medium?" the preservice English teachers provided some clarity regarding their determination of an "easy" form of technology.

### **Microsoft Word**

Word's ease of use was connected to its familiarity. Preservice English teachers perceived it as easy because they felt comfortable attaching a Word document to an email and submitting it as their informal reflection journal. One preservice teacher stated, "I was the most comfortable with it and felt that I would have [fewer] problems with it," while another explained, "I'm used to typing documents on Word. It is the most familiar."

The preservice teachers also appreciated the ease by which Word allowed them to organize their reflection journal. As they explained, "I am familiar with it. It helps me keep my journals organized and it is easy to refer back to them," "It was easy and clear cut. I was able to keep all my journals together and organized this way," and "I was familiar with it and I knew it would help me stay organized."

Lastly, some preservice English teachers referenced Word's ability to make writing easier, in general. One preservice teacher noted that Word's spell-checking feature was convenient. Another elaborated on this element, stating, "First, I have problems with grammar and this has a spell check to help correct those problems. Second, it is a format I am familiar and comfortable with."

### **Weblog**

Weblogs were considered an easy technology medium for reasons similar to those given for choosing Word. Weblogs were equally familiar through daily use to some preservice English teachers. As one stated, "I use one already and it is easiest for me." Organization of the reflection journal was also easy to accomplish through a weblog. One preservice teacher explained that using a weblog "was easiest for me to keep [the entries] all together and organized."

The preservice English teachers also saw the accessibility of weblogs as contributing to their ease of use. Weblogs are maintained on the Web, allowing updates and revisions from any Internet-connected computer. The preservice teachers' responses supported the concept that a Web-based journal was easily maintained: "I thought it was most convenient since we had to keep adding to our documents," "I thought it would be the easiest for me to keep updated," and "The bookmark reminds me [to write my reflection] when I'm online."

Several preservice English teachers pointed to the capability of weblogs' to make reflection journals easy for the professor, as well, noting that weblogs were "easy to work with for both of us" and "easy for you to leave comments." One preservice teacher explained, "I thought it would be the easiest way for both parties involved to access the journals." The ease of weblogs is perhaps best summarized by one preservice teacher's explanation: "It is easy. I can do it anywhere. Keeps track easily of what I've written. Already familiar with [it]."

### **Email**

Although a direct email is a relatively simple and frequently used technology medium, few preservice English teachers chose to use this particular form for their reflection journals. Of the four preservice teachers who did, all pointed to the simplicity of email. They noted that email was easier to do from home, since it only required "opening up an email and starting." One preservice teacher explained that email was the "easiest" choice because "I didn't have to remember to attach anything or worry about anything not opening."

### **Webpage**

Creating an individual webpage was the least popular choice for the informal reflection journal. For this technology medium, no consistent response was offered for its use. Of the three preservice English teachers who created a webpage, one had an existing webpage "so it was very easy to upload my journals," and one saw it as a chance to "work on my FrontPage skills." The remaining preservice teacher pointed out a concern that the professor would not receive the weekly reflection, explaining, "I'd rather open it from my computer so that I can be assured you would be able to do so from yours."

## **Satisfaction With the Technology Medium**

The evaluations next asked the preservice English teachers to rate their satisfaction with the technology medium chosen for their informal reflection journal, using the categories of *very satisfied*, *satisfied*, *no opinion*, *unsatisfied* and *very unsatisfied*. Consistently, the preservice teachers ranked themselves as *very satisfied* or *satisfied* with their choice of technology medium.

Out of 58 preservice teachers, only one chose the category *unsatisfied* to describe her view on the choice of medium. This preservice teacher had created a webpage for her reflection journal. The low level of satisfaction was understandable when she explained, "Because my file disappeared and now I have no journal. Before that, though, I was totally fine with it."

The preservice English teachers' satisfaction with their choice of technology medium was, again, connected to the lack of technical difficulties presented by the medium. If their choice was viewed as "easy" or "convenient," the preservice teachers were satisfied with the technology medium. As one preservice teacher explained about using Word, "It worked smoothly [and] had no problems," a sentiment that summarized the high levels of satisfaction with other technology media, as well.

The preservice English teachers also expressed satisfaction when the technology medium allowed them to access their reflection journals at a later date. This was most often indicated with the choice of Word, preservice teachers explaining, "I am very satisfied because I have my journal entries saved to my computer for future use," and "I like the document format; I now have all of my journals in one Word document to look back on." Those who used weblogs and webpages also noted the medium's ability to contain their reflections in one location. As one preservice teacher stated, "All of my journals are right there for me to see." The preservice English teachers did not point to any future use of the collected reflections, however.

Satisfaction with weblogs, in particular, was also attributed to the medium's ability to support a level of interaction. Weblogs offer a built-in comment feature for each entry, which allowed me to attach specific feedback to each reflection entry. Several preservice English teachers using weblogs mentioned this aspect in explaining their satisfaction level: "I got to see your response right beside my blog entry," "It's set up pretty easily to receive your feedback to my post," and "It is easy, fast, convenient and provides a nice space for feedback."

### **Technology Medium's Influence on Reflection**

The end-of-semester evaluation asked the preservice English teachers the following question: "Do you feel your choice of technology medium affected your reflection in any way?" The majority of preservice teachers – 30 of the 58 – responded with "yes" or "perhaps" when considering how their choice of technology medium influenced their individual reflection. The remaining 20 preservice teachers claimed the medium had no effect on their reflection, responding with either "no" or "not really." In elaborating on their answers, however, the preservice teachers' responses indicated that the technology medium did play a role in their reflective practice in some way.

In seven responses, preservice English teachers indicated that their choice of medium influenced the length of their entries. Although no specific length was required for the weekly reflections, the preservice teachers held certain expectations as to a suitable entry length, summarized by the response "I felt like it needed to be at least a page long." Word offered a clear demarcation. As one preservice teacher explained, "Length is easier to measure in Word [so] I felt my reflections were usually pretty lengthy and therefore thorough." Weblogs, however, offered less clarification, causing preservice teachers to worry about their weekly entries, explaining "I did find myself worrying about length, since it looked so much shorter on my blog than elsewhere" and "I was a little

nervous about making long enough entries because I couldn't see the length in a Word document.”

The technology medium chosen also influenced preservice English teachers' approach to reflection. Nine of the preservice teachers indicated that their choice of technology medium in some way altered how they chose to express themselves in their reflection. Word was more likely to be seen as encouraging formal language in reflection entries, as the preservice teachers' responses explained: “I maybe talked more formally than I would have if it was handwritten,” “My reflection was more ‘formal’ because of the Word format,” and “I think it made me more conscious of my spelling/grammar and made me pay attention to make sure my writing was proper.”

The preservice teachers indicated that weblogs and email, however, did not encourage as formal of an approach. One preservice teacher pointed to the perceived informality allowed by using email as a reflection journal, explaining, “If our reflections were to be longer and more polished, I would've used a Word document!” Another noted the difference in approach when using a weblog for reflection by stating “I feel that I am less formal because it really feels like a journal.”

Lastly, eight preservice English teachers indicated an awareness of their medium's audience. Those preservice teachers using a Word document knew that one specific person – in this case, the professor – would have access to their written reflections. This awareness supported preservice teachers' choice of reflection topic – “I feel like I could have written about anything” – and sense of privacy – “Compared to a weblog or webpage, I knew only you would be reading it” – when composing reflection entries. A preservice teacher using email acknowledged that audience played a role in her reflection, writing, “I think that because it was an email, I was more conscious of my audience,” but did not elaborate on the effect of that audience.

### **Implications of the “Easy” Choice**

The preservice English teachers in the secondary English methods course indicated a clear preference of medium for their informal reflective practice assignment. When asked to choose a specific technology medium, a majority of preservice teachers (36 of 58) opted to use a Word document for their informal reflection journal. They considered this an easy medium, one that was familiar to them and offered few complications in completing the assignment. Ease of use also contributed to the preservice teachers' satisfaction with their chosen technology medium; if the medium performed as expected, the preservice teachers were satisfied with their choice.

Making a decision because a form of technology is the easiest choice seems to limit preservice teachers' experiences with and understanding of technology during their teacher preparation. If preservice teachers work solely in a familiar environment, they may refine their knowledge of a specific technology medium but fail to learn less familiar media that offer positive benefits for future teaching and learning. Moreover, an emphasis on the easiest choice in the present offers little assurance that the preservice teachers will make the effort to learn more about and

experiment with unfamiliar and emerging technology media in their future teaching. When considering English teachers' need for technological proficiency in today's classrooms, teacher educators are more likely to prefer experimentation with forms of technology during university preparation, seeking responses like the one offered by one preservice teacher: "Lately it seems that more and more teachers are using weblogs as formats for discussion. I had never had any experience using this tool, so I thought this might be a good opportunity to acquaint myself with it."

Technological proficiency and, with it, technological pedagogical content knowledge are important issues in teacher preparation and should certainly be taken up by English teacher educators. With the increasing complexity of teaching and learning in today's classrooms, teacher educators consciously incorporate a wide range of important issues in teacher preparation, technology being one of many. A full discussion of the importance of technology in English teacher preparation is beyond the scope of this article (see Swenson, Rozema, Young, McGrail, & Whitin, 2005), but the need for preservice English teachers to have meaningful educational experiences with technology encourages teacher educators to integrate various forms of technology throughout their preparation.

The electronic reflection journal is one such attempt. With technology integrated into a specific assignment, preservice teachers have the opportunity to use their choice of technology medium in a meaningful context. At issue, then, is the reluctance of the preservice English teachers to experiment with different forms of technology to complete the informal reflection journal.

Familiarity and comfort with technology are not inherently negative attributes, however. A familiar technology "is one known and, often, readily used; such familiarity may support its consideration for multiple tasks, allowing for an expansion of how the technology may be used in different contexts" (Shoffner, 2009a). Positive views toward technology may also positively influence the utilization of technology, potentially supporting preservice teachers' use of technology in their future classrooms (Johnson & Howell, 2005). English teacher educators are encouraged to integrate both familiar and unfamiliar forms of technology into teacher preparation, to support preservice teachers' understanding of and comfort with different media suitable for their future classrooms. The forms of technology chosen for the informal reflection journal, for example, are commonly found in today's classrooms and suitable for a range of learning opportunities.

Forms of technology not chosen for the assignment, such as podcasting or digital storytelling, are also appropriate for the classroom, of course, although not always as accessible. Modifying the informal reflection assignment to require the use of these less familiar forms of technology would extend the preservice English teachers' interactions with technology, in general, and provide specific experiences with a different medium that might encourage future experimentation in the classroom while supporting the development of preservice teachers' TPACK during university preparation.

Doing so, however, may have implications for preservice English teachers' reflection. Familiarity with technology may support preservice teachers' engagement with reflective practice, encouraging preservice teachers to focus on the reflection created rather than the form of technology used. The preservice English teachers were satisfied with their choice of technology medium for reflection, in part, because their choice supported completion of the reflection journal without an additional layer of difficulty.

Reflection itself is a difficult process, requiring preservice teachers to work through internal conflicts, pose questions, identify issues and solve problems (Larrivee, 2000). Use of an "easy" technology medium does not necessarily detract from the process of reflection; in fact, it may better support the practice. As one preservice teacher explained, "I didn't have to worry about the way I submitted my journal so I focused on the content." The interaction of unfamiliar forms of technology and reflective practice, however, is an area that calls for additional study in order to explore the implications for preservice teacher reflection.

### **Implications of Technology in Informal Reflection**

The preservice English teachers indicated some awareness of the technology medium's influence on their reflective practice. When asked to consider how their use of a specific medium influenced their reflection, the preservice teachers addressed issues of journal length, choice of expression, and awareness of audience. These issues are connected to the elements of informal reflection.

#### **Journal Length**

Preservice English teachers' concern over the specific length of their reflections illustrates the inflexibility commonly associated with reflective practice. Preservice teachers are often presented with a given structure and specific topics – if not particular font and pagination requirements – when they engage in reflection during teacher preparation (Bodzin & Park, 2002; Francis, 1995; Yost, Sentner, & Forlenza-Bailey, 2000). As expected, the most common complaint voiced of this informal reflection assignment was the lack of assigned prompts for the weekly entries. A second concern was that of appropriate length for the entries, with preservice teachers questioning whether a reflection was "long enough" to meet the professor's expectations. Preservice teachers were reminded of the elements of informal reflection when these concerns arose.

Informal reflection relies on a more flexible structure to engage preservice English teachers in reflection. Topics for reflection are determined by preservice teachers' own interests and experiences. Without assigned reflection prompts, preservice teachers can "draw on their practical theory to explore topics and seek understandings that are personally relevant" (Shoffner, 2008, p. 128). The length of entries is determined by preservice teachers' approach to their chosen topic, allowing preservice teachers to reflect succinctly or expansively in keeping with their personal style of expression. (Of interest is that a random sampling of the entries written by the preservice English teachers revealed most reflections consisted of 450 to 550 words, with

some entries as low as 250 words and some as high as 750 words.) The following reflection is an example of informal reflection's flexibility of topic and length:

I have found since taking your class, I view movies, news, and other things around me through a teacher's point of view. I never really had thought that much about the fact that anything can be a text in class if used properly. I just went and saw the new Will Ferrell movie, *Blades of Glory*. The movie is absolutely inappropriate for class. I'm not sure if you've seen any Ferrell movies you'd understand, but they are always incredibly suggestive and the language is definitely not suitable for an English classroom. These are glaringly obvious reasons not to use the movie in class, but it could SO be used with a Gender studies lens. Basically what happens is that two men are banned out of men's single in figure skating. They re-enter the Olympics competition as the first 2 man pair in figure skating. Throughout the movie, there are SO many things going on as far as gender roles go. There are many gender issues that arise in the movie such as is it okay for two men to skate together? Is that gay? What about Jimmy's behavior makes you think he acts like a woman or is gay? Why is it possible to send the sister to seduce the man? It's so weird to think of such a ridiculous comedy through a gender studies approach, but it's even weirder that it's possible!

Although fairly brief – 233 words total – this reflection considers topics discussed in the methods course (alternate texts and literary theory) as applied to a recent experience (viewing a movie) that interested the preservice teacher and encouraged her to explore her experience in her reflective weblog.

Some preservice teachers appreciated these aspects of informal reflection, illustrated by the comments, “I enjoyed not having prompts. It allowed the journal to be 100% mine,” and “I like the fact that the journal is open-ended. I don't think journals can be directed by someone other than the writer.” The ownership expressed by these preservice English teachers is a positive outcome of informal reflection, since ownership of reflective practice may indicate an interest in continuing reflection beyond teacher preparation. Despite its many benefits, reflection is a relatively uncommon professional practice (Gelter, 2003), suggesting that more must be done at the university level to encourage preservice teachers to take reflective practice with them into their future classrooms.

Experience with informal reflection is one approach. The integration of technology into reflection is another. Different forms of technology that support individual ways of engaging in reflection may encourage preservice English teachers to expand their understanding of reflective practice beyond the rigidity often associated with university reflection. Rather than viewing reflection solely as the writing of structured reflective essays, for example, preservice teachers might see an informal Word document journal or embedded videos in a weblog as acceptable ways to engage in personal reflection. Practicing English teachers' personal approaches to reflective practice and the influences on those approaches are issues that suggest the need for further study.

## Personal Expression

The preservice English teachers noted the influence of the technology medium on their approach to reflective practice, an issue related to the element of personal expression in informal reflection. The affective domain plays an important role in learning to teach, and reflection offers a constructive means by which to explore the emotions associated with teaching and learning (Shoffner, 2009b). Informal reflection supports a personal approach to reflective practice, accepting the emotion present in teacher preparation and allowing more freedom of expression in reflection (Shoffner, 2008). That emotion is clearly conveyed in this preservice teacher's Word document reflection:

I am getting nervous about student teaching. After taking the Praxis II, I feel I do not know nearly as much as I thought I did about English Literature. It makes me question and brings me back to what [a classmate] was discussing in class, how much am I supposed to know? I'm obviously not going to know every answer, but I cannot help but want to! I can recall my English teacher in high school whom I love! She seemed to know every answer to our questions, and still challenged us to research on our own. It just feels like I'm questioning, "Am I going to be a good teacher?" on a daily basis. Last night my roommates and I got onto a discussion about English and teaching (they try to indulge me a bit) and we realized we had all read *To Kill a Mockingbird*. But there were several other books they had read and enjoyed that I had never heard of before, making it seem as if I have an endless list of books and authors I need to catch up on in order to be qualified to teach English. And I don't want to discuss my grammar woes!

Through informal reflection, this preservice teacher had the freedom to express her nervousness and fear over content knowledge while connecting those emotions to the larger concern of the qualities of an effective teacher.

The freedom of informal reflection extends to preservice teachers' choice of language or (mis)use of grammar, as informal reflection focuses on the act of reflection rather than the quality of writing. The personal expression of language choice is seen clearly in this excerpt from a preservice teacher's reflective weblog:

why are we scared of technology? by we, i mean teachers, but seriously, that video we watched last week in class, i feel, really scared some of my classmates...is it because technology makes us feel as though we can't "connect" with our students as well as we'd like to?...sure, it's important to make connections between material/teacher/student, but those connections won't (and shouldn't) derive simply because we're "like" our students...we're not! that video demonstrated that! i DO NOT know what it's like to be a teenager today...i don't...so as much as i would like to, i won't be able to rely on my experiences as a student to reach my future students...they are simply different experiences...i didn't have a CD player until i was 13, the internet the same year....our junior high had one or two computers which were purchased my

eighth grade year....i think if anything, i have grown in my confidence as a teacher – but that confidence comes from the ability to adapt, not the assumption that because i'm young, my students will “get” me....they won't! i will be considered weird, mean, and yes, old....i'm so glad though that i realized this now instead of after i entered my classroom and was confronted with this reality head-on....

This preservice teacher chose to ignore grammatical and mechanical conventions in his reflection, yet his choice of language clearly conveys his consideration of technology in the English classroom.

Several of the preservice teachers considered that their choice of medium encouraged formal or informal forms of writing. As one explained, “When using Word, I make sure my write-ups are neat and formal. Had it been a blog or email, I might have used more slang and poor grammar.” The emphasis in this comment is on the expression of ideas rather than the ideas themselves. The final product may have been expressed differently in other forms of technology, but the ideas would have remained the same.

Feedback on the evaluations indicated that the preservice teachers saw different technology media carrying certain connotations of formality or informality. Word was seen as requiring more formal expression, perhaps due to its association with university assignments, while weblogs and emails were seen as allowing informal expression, perhaps due to their association with personal communication. The connotations of formality and informality associated with certain forms of technology certainly invite additional study, since this issue relates to issues of literacy and technology use.

### **Audience**

Audience was also an issue influenced by the preservice English teachers' choice of technology medium and one that is addressed in informal reflection through the element of communal interaction. The preservice teachers were aware that weblogs and websites allowed access to a public community through the World Wide Web, while Word documents and emails created a two-person community with the professor. This awareness was a factor in determining the content of preservice teachers' reflection, as some noted.

The professor as audience, however, created the potential for a different type of community. Each week, I responded to the preservice English teachers' reflections, offering a different perspective, encouraging new understandings, and providing support as necessary. Responses were provided through email for Word, email and website reflection journals or the comment feature attached to weblogs for weblog reflection journals. This weekly contact kept me connected with preservice teachers beyond the classroom and supported interaction around issues of importance to the preservice teachers.

These responses also allowed me to provide more individual attention to the concerns expressed by the preservice teachers. When a preservice English teacher reflected on her reluctance to speak up in a discussion on

diversity, for example, I challenged her to engage her classmates and consider the implications of that engagement for her future teaching:

Diversity in any form is a difficult issue in the classroom, whether it's coming from the teacher, the students, the material, the expectations. You make some very good points about the homogeneity of our class, the flashpoint of discussing charged issues with adolescents, the different perspective that your background brings to your views on teaching and learning. In general, I don't disagree with your assessment (and no, you're not in trouble) but I do hold you accountable for your own learning. You're too intelligent a woman to sit back and accept the proffered consensus without question. As a teacher, you have to remain open to new ideas, however opposed to your own thinking they first seem. Judgment is easy; openmindedness is not - and I speak from experience, not a soapbox. Take up the ideas your classmates profess and challenge them with new perspectives; challenge your own thinking by asking questions and pushing against the status quo. Don't hide behind knowing you're right; figure out why you might be wrong.

When that same preservice English teacher reflected on the way a fellow preservice teacher handled a rebellious student during a lesson, I offered some views on authority in the classroom, as well as potential responses to the student's actions:

As to your question about authority with your current students...students know that you don't determine their grade, that you have little long-term influence in their schooling, that you're college students learning about education. That can cause any number of reactions (usually, quite innocuous ones) and perhaps explain the student's ignoring [the other preservice teacher's] directions. At the same time, you all don't "act like" teachers yet. You're still settling into your teacher-ness, so your sense of your own authority in the classroom is actually pretty weak. Students can pick up on that, too - not to compare them to sharks, but they can sense weakness. What could [she] have done differently? Quietly taken the paper from the student - placed her hand on the paper to disturb the writing - ignored him and moved on with the lesson - spoken quietly in his ear - spoken more firmly that time was up - spoken loudly that he was holding up the class and hope peer pressure would kick in... Any number of alternate reactions could have created a different response - or the same one.

Such communal interaction, however limited, is a positive element of informal reflection. As one preservice English teacher explained, "I feel like you give really good feedback, and the journals really make me think deeply about many aspects of being a teacher." Echoing this viewpoint, another preservice teacher noted, "I got more out of this journal assignment this semester than any other. I think your comments are what made it so effective." From my point of view, this limited communal interaction provided an important connection with the preservice English teachers beyond the university classroom, allowing me to gain additional insight into their development as teachers and provide more individualized support in their learning.

Certain technology media allow for an expansion of community, supporting interaction independent of time and location. The use of technology to support interaction in reflective practice allows preservice teachers to connect with different audiences, both small—like that created by trading reflective emails—and large—like that created by discussing in a reflective wiki—and benefit from interaction with others. As the informal reflection assignment is currently constructed, the preservice English teachers are not required to share their reflections with anyone other than the professor. Altering the assignment to include or require collaborative forms of technology, such as discussion boards, group weblogs or communal wikis, would offer preservice teachers the opportunity to reflect in a community of their peers while providing experience with different forms of technology and supporting further development of their technological pedagogical content knowledge.

Requiring more communal forms of technology would also alter the audience for the reflections. The preservice English teachers are aware that their reflections are read only by the professor. As expressed in some evaluations, the preservice teachers value the privacy afforded by this limited audience, as well as the ability to choose any topic.

They may also appreciate and benefit from interaction with a more diverse audience, however. Exchanging reflections with an outside audience requires preservice teachers to articulate and clarify their ideas (Francis, 1995). Interaction with their fellow preservice teachers requires the ability to ask questions and respond to criticism (Liston & Zeichner, 1990) while receiving support for and feedback on their reflective thoughts (Makinster, Barab, Harwood, & Andersen, 2006) from a broader audience than that provided by the professor alone. Incorporating these changes in the informal reflection assignment would provide a rich opportunity for additional exploration of audience and technology use in preservice English teacher reflection.

### **Conclusion**

As Zeichner and Liston (1996) explained, teachers who think reflectively have the ability and responsibility to think critically and consider both self and student in issues of teaching and learning. Experience with reflection during university preparation is necessary in preparing such teachers; reflective journal writing is an important element of that experience (Larrivee, 2000). The integration and use of technology is also an important element of teacher preparation (Bell, 2001) and plays an increasingly important role in reflective practice. Lastly, the need to work effectively with technology as English teachers supports efforts to develop preservice teachers' technological pedagogical content knowledge during university preparation.

The integration of technology into reflective practice encourages teacher educators to consider the use of different forms of technology in preservice teacher reflection. As explored in this article, preservice English teachers hold specific views on the technology medium used in their reflective practice. Those views hold implications for both technology use and personal reflection.

The emphasis on choosing an “easy” technology medium indicates that preservice English teachers preferred to use known forms of technology when completing the informal reflection assignment. By choosing a medium with which they were comfortable, the preservice teachers could focus on the reflection rather than the technology. As engagement with informal reflection was the primary purpose of the assignment, the preservice teachers are not at fault in choosing an “easy” form of technology. However, with the need for preservice English teachers to engage with technology in meaningful ways (Swenson et al., 2005) and the responsibility to develop a content-specific understanding of technology’s place in teaching and learning (Mishra & Koehler, 2006), I am encouraged to stress two main points arising from the study.

1. Preservice English teachers’ satisfaction with “easy” forms of technology, while possessing some positive implications, also suggests a need to move preservice teachers out of their comfort zone in order to expand their experiences with and understandings of technology in many forms. Preservice English teachers need more opportunities to use various technology media for authentic purposes during teacher preparation. If ease is associated with comfort, preservice teachers require continuous opportunities to engage with different forms of technology in order to increase their comfort level with various media. This increased comfort with various media, in turn, supports the development of preservice teachers’ technological pedagogical content knowledge during teacher preparation. Multiple experiences with multiple forms of technology present preservice teachers with the opportunity to consider the affordances and constraints each medium brings to a specific task. The rapid rate of technology change and the situated nature of learning (Mishra & Koehler, 2006) require preservice teachers to understand what different technology media can do and how they can best be used in their future teaching and their students’ learning. Using familiar forms of technology is certainly acceptable during teacher preparation but teacher educators must support and encourage additional experience with unfamiliar forms, as well.

2. Reflective practice provides a meaningful context in which to engage preservice English teachers with different forms of technology. Reflection is an accepted component of teacher education, and the integration of reflection and technology offers teacher educators an authentic way in which to engage preservice teachers in reflective practice and technology use. The potential for technology use to influence reflection in specific ways encourages teacher educators to consider the integration of reflection and technology as an area for further study.

Furthermore, teacher educators should explore the benefits and drawbacks of different technology media as related to reflective practice, just as they should “experiment with the form, process and method of reflection” itself (Shoffner, 2008, p. 132). Preservice teachers have the chance to develop technological pedagogical content knowledge, in part, through reflection on the elements of and connections between technology, pedagogy and content. Using reflection to consider specific issues critically – such as the rapid rate of technological change, the design of technology for educational purposes or the use of specific forms of technology to support the situated nature of learning (Mishra & Koehler, 2006) – provides preservice teachers with the opportunity to develop their technological pedagogical content knowledge while

engaging in meaningful reflective practice. While preservice teacher reflection should obviously focus on more than issues of and with technology, reflective practice provides a meaningful opportunity for preservice teachers to consider the complexity of technology's place in their future teaching.

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