


Use of Technology in an Adult Intensive English Program: Benefits and Challenges

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This exploratory study presents results of an online survey on student teachers’ technology proficiencies and uses of various tools in an
adult Intensive English Program (IEP) in the United States. The ultimate goal was to identify areas of improvement for teacher education programs with regard to technology-enhanced language teaching and student teachers’ professional development.

Since the lines between traditional and online language learning contexts have become increasingly blurred (Goodfellow & Lamy, 2009), the ongoing call to equip teachers with the skills to teach with technology seems more important than ever (e.g., Hubbard & Levy, 2006; Pegrum, 2009; Willis, 2001). Back in the early 1990s, Woodrow advocated that “[p]reservice teachers need to perceive computers as integral parts of the instructional strategies and professional activities of teachers and become committed to their use” (1993, p. 373). Meskill, Anthony, Hilliker-Vanstrander, Tseng, and You (2006) concluded that computer-aided instruction and multimedia were frequently the subject of research but not frequently used by teachers of English for speakers of other languages (ESOL). In a similar vein, a recent study in Canada on how novice teachers perceived their preparedness and efficacy showed technology in teaching as the fifth least effective (Faez & Valeo, 2012).

Thus, teacher educators have reemphasized the urgent need to equip teachers with basic information and communications technology competence (e.g., Hampel and Stickler, 2005) and electronic literacy skills (e.g., Fuchs, 2009). For instance, the benefits of using wikis and blogs for peer editing (Kessler, 2009) and reflective and collaborative writing in foreign language instruction have been well established (Mak & Coniam, 2008; Warschauer, 2010). Other researchers have implemented telecollaboration for language study and intercultural learning (Belz & Thorne, 2005; Guth & Helm, 2010) and explored the potential of using synchronous videoconferencing (e.g., Skype) to connect French learners in the United States with student teachers of French as a second language (FSL) in France (Develotte, Guichon, & Kern, 2008; see also Yanguas, 2010).

Against the backdrop of these studies, we explored student teachers’ proficiencies and preparedness in using technology tools in their English classes, the frequency of use, and the possible impact of these tools on teaching and learning. The research questions for this study were therefore as follows:

1. What kind of prior technology experience and training do IEP student teachers have? How important do IEP student teachers consider technology implementation in their language teaching?
2. How do IEP student teachers rate their proficiency in using technology tools? How often do they use these tools in teaching?

3. What are the perceived benefits and drawbacks of technology use, and what areas can be identified to improve professional development?

**RESEARCH DESIGN**

A questionnaire was administered to past and present student teachers (hereinafter respondents or R) in an adult IEP at a private graduate institution on the East Coast of the United States \((N = 39)\). The participants were enrolled in TESOL applied linguistics (AL) programs and taught in the IEP three times a week as part of their practicum courses. At the time of the study, 2 out of the 39 participants were novice teachers, 25 were enrolled in 5000-level practica (i.e., they had at least 2 years full-time teaching experience), 7 were enrolled in 6000-level practica, and 5 were hired master teachers. The authors, a student-researcher and a teacher-researcher, designed this anonymous online survey via Google Forms and piloted the survey in May 2010. The final questionnaire was sent out via email to the same list of participants between June and October 2010. This was done a total of four times to elicit as many responses as possible. The invitation to complete the survey contained an explicit statement that respondents should only submit once.

In this questionnaire, five multiple choice questions asked student teachers about demographics (age, gender), their roles in the IEP (e.g., novice, master teacher), proficiencies in the tools, the frequency of use, and the teacher’s role in technology-based instruction. Five open-ended questions (not including a final comment section) focused on participants’ prior technology experience and training in language teaching, the number of years of teaching experience, the use and effects of technology in their IEP teaching and student learning, and areas for professional development needed to foster student teachers’ technology implementation. The return rate was 35.45%; however, not all participants responded to all questions of the survey.

For the data analysis, each answer was extracted from the Google forms spreadsheet, numbered, and compiled in a Word document. For the quantitative analysis, the summary responses were exported from the Google Forms spreadsheet into Excel to calculate the percentages and averages. In a first round of coding the qualitative comments, the two researchers did open coding in an online docu-
ment. In a second round, both researchers coded for themes emerging from respondents’ *in vivo codes*, i.e., words taken from the subjects themselves (Strauss & Corbin, 1998), such as *engage students* and *personal dislike of social networks*. Finally, categories such as *integrating authentic materials and engaging students* and *lack of access by IEP learners* were generated based on the codes. Additionally, the researchers were interested in documenting the use of technology tools such as *course management platforms* (Moodle, Ning), *social bookmarking, blogs, discussion forums, podcasts, YouTube, and wikis* (for electronic portfolios), because these tools had been introduced in the methods and practicum courses, and in a technology elective (all taught by the teacher-researcher since Fall 2007).

**RESULTS AND DISCUSSION**

**Research Question 1: Participants’ Prior Technology Experience and Training and Perceived Importance of Technology Use in Language Teaching**

Almost half of the respondents (47.5%) responded negatively to the question of whether they had had prior technology experience in teaching, while 52.5% said they had some experience: “Yes. I have attended various workshops on how to use technology over the years” (R37). Moreover, 38% of participants had learned to use technology through the IEP, 30% through another opportunity at the graduate institution, 23% said they had never learned how to use technology, and 9% said they learned to use technology outside of the institution. The IEP training was, however, primarily about the use of technology resources in the IEP and at the institution in general (e.g., CD players, media services). For example, one participant stated: “My technology experience prior to the IEP was very simple, because of limited resources, and just included CD players, tape players, and VCRs” (R21).

Most participants (over 60%) responded positively to the question of whether they considered technology use important in language teaching: “I do not think you can ignore technology in the classroom. It is a given in terms of me using it. It makes the classroom come alive. Technology is relevant in our lives today” (R31). While it is important that student teachers acknowledge the need for using technology, it is equally or even more important to encourage them to actually use technology in their teaching. The latter also requires a certain level of proficiency. These issues are addressed by research questions 2 and 3 below.
Research Question 2: Self-Rated Proficiency in Using Technology Tools and Frequency of Use

When asked to self-rate their proficiency, the majority of respondents ranked the following technology tools the highest: Internet (74%), Skype (60%), YouTube (57%), and Instant Messenger (IM) (50%). Similarly, Piccardo and Stille (2012) found that the tools used by experienced teachers of FSL in Canada were the Internet for searches, word processing projects or activities, digital images or audio/video (e.g., YouTube), and Powerpoint. In the present study, the second highest were blogs (38%), group discussion forums (37%), online document management (30%), and wikis (30%). In contrast, podcasts, Ning, Twitter, Moodle, and social bookmarking were rated the lowest.

Participants were also asked which of these technology tools they had used in their IEP teaching and how often (on a 4-point Likert Scale: 1 = never, 2 = once every other week, 3 = once or twice a week, 4 = every lesson). The most frequently used tools were the Internet and YouTube. The remaining tools (social bookmarking, Twitter, Skype, IM, group discussion forums, online document management, Ning, and blogs) were used “once every other week” or “never” by the majority of participants.

The following three tendencies emerged from the data:

1. Participants’ high self-rated proficiency and high frequency of use in teaching (Internet, YouTube);
2. Participants’ high self-rated proficiency but low frequency of use (blogs, IM, Skype); and
3. Participants’ low self-rated proficiency and low frequency of use (Ning, Twitter).

These tendencies point to a mismatch between high self-rated proficiency in the tools and low frequency of use of these tools in teaching. It does not seem surprising that synchronous tools (e.g., Skype) may not easily be implemented due to logistical issues (e.g., different time zones, typing speed for communicating in real time). Nonetheless, it is puzzling that wikis, blogs, and discussion forums are not used more provided that student teachers in every practicum are exposed to Blogger (as part of their required teaching reflections). Moreover, for their practicum courses, student teachers create an electronic portfolio on a wiki. Additionally, in the methods course (a prerequisite to the practicum), student teachers typically use online discussion groups and complete a technology-based writing task using blogs or wikis.
Research Question 3: Perceived Benefits and Drawbacks of Technology Use

Following are the recurring themes in the qualitative comments of the respondents regarding the benefits and drawbacks of using technology tools in their teaching.

**Benefits**

1. **More tool variation with experienced student teachers.** In addition to Powerpoint and Ning, some of the experienced student teachers had used PBWorks (formerly PBWiki), a wiki which was not formally introduced in the practicum. Something similar was observed with the Ning, which had been used by a seasoned student teacher who shared the positive results in the methods course in Fall 2009: “I will not teach another class without the Ning” (R16). Ning was formally introduced in the teacher-researcher’s technology elective in Spring 2010, and some IEP student teachers started to use the tool in their classes that same semester. This supports Egbert, Paulus, and Nakamichi (2002), who found that teachers who used computer-assisted language learning (CALL) in their classrooms were frequently those who already had prior experience with CALL or who had had years of classroom teaching experience (see also Piccardo & Stille, 2012). Similarly, Meskill, Mossop, DiAngelo, and Pasquale (2002) reported that novice teachers who had received state-of-the-art training in classroom technologies tended to be much less comfortable in their implementations than the more experienced teacher who had no formal training with computers but a great deal of classroom experience.

2. **Integrating authentic materials and engaging students.** A few respondents mentioned that they used corpora for vocabulary teaching and the Ning for teaching integrated skills. For example, one respondent stated, “the use of online corpora has facilitated my students’ acquisition of vocabulary” (R5).

Others mentioned “flexibility” and “spontaneity,” especially with regard to using the Internet in class (e.g., for pulling up images of key vocabulary words). According to R3, “being able to use the Internet in the classroom gave me flexibility. . . . I used the Internet spontaneously for vocabulary teaching . . . once instead of giving a linguistic definition of the word pine cone, I found an image for it.”

Moreover, student teachers said that they used technology and found it “engaging” and that “students liked it.” According to R8, “(t)echnology provides me with more innovative ways of delivering a
lesson and ways to engage students in a class.” Additionally, R15 stated: “I remember, for instance, using YouTube for warm-ups, going over a cultural reference from a [IEP] midterm by showing my learners a scene from The Brady Bunch on YouTube... they really loved what I did.” However, it was not clear how exactly student teachers used these tools. For example, using YouTube for showing a clip (like The Brady Bunch) is something that a videocassette could have achieved. It would have been significant to know what tasks were performed by the student teachers and if or how their learners used technology (e.g., commenting on clips via the blog function).

**Drawbacks**

1. **Lesson planning takes precedence over technology with novices.** Lesson planning is generally emphasized in the novice practicum and is also part of the classroom observation checklist. Technology, however, is not part of the checklist, even though student teachers are encouraged to use technology tools in their teaching. This could explain some of the novice teachers’ comments: “Once I am less overwhelmed with lesson planning, I hope to integrate more technology into my teaching” (R18).

   Furthermore, respondents complained about the time-consuming nature of using technology (see Egbert et al., 2002; Fuchs, 2009): “If students do not come to class, I do not have the time or resources to Skype or chat via AIM” (R25). This seems particularly relevant because in addition to being full-time graduate students, student teachers struggle with the heavy IEP teaching load.

2. **Participants projecting negative experience onto teaching.** Some student teachers articulated their own dislikes of a certain tool, which they subsequently chose not to use in their class: “I have a personal dislike of social networks and technology used to socialize so I don’t really want to bring them into the class” (R35). This supports findings from previous studies, which found that factors such as insecurities and attitude toward computers played a role in technology implementation; one main reason for teachers not to integrate technology was the perception that it was not worthwhile (Fuchs, 2009).

3. **IEP learners’ lack of access and low e-literacy skills.** The data also revealed that IEP students seemed to have a lack of access to technology or low electronic literacy skills. These constitute issues especially in beginning-level classes: “[I]t was not easy to implement a lot of online ‘tools’ and even very basic assignment requiring them to download attachments from emails or access videos online, etc.” (R22). Piccardo
and Stille (2012) also stressed the need to involve language learners in activities that engage technological skills and capabilities.

4. **Technology cannot substitute for face-to-face communication.** A couple of respondents seemed to compare technology-based with face-to-face teaching with a preference for the latter: “I try not to force technology into my teaching plans. If there is a way that a live discussion can accomplish the same thing, I prefer a live discussion, possibly with onscreen images” (R19). This statement indicates that it may have not been made explicit to student teachers that technology should be regarded as an add-on rather than something that comes at the expense of face-to-face communication.

**CONCLUSION**

In sum, despite the fact that the promotion of technology, particularly of Web 2.0 tools, has been on the rise, the reality in IEP classrooms still seems rather grim. Although more than 70% of the respondents reported high proficiencies in tools such as Skype and YouTube, less than 30% reported having used these tools in their classes.

With regard to participants’ self-rated proficiency in technology tools and the frequency of use in the classroom, there appears to be a mismatch. On the one hand, there are technology tools that match both self-rated proficiency and frequency of use (Internet, YouTube). On the other hand, there are technology tools that do not match proficiency and use, i.e., high proficiency but low use (e.g., blogs, IM, Skype, etc.).

While synchronous tools may not be as easily implemented as asynchronous tools due to logistical reasons such as timing, it appears surprising that somewhat established asynchronous tools like blogs and discussion forums were not used more frequently, especially since these student teachers had been introduced to these tools in their core courses.

With regard to benefits, it can be noted that there was more tool variation with experienced student teachers. Overall, technology was perceived as a way of integrating authentic materials and engaging students. However, it was not clear how exactly teachers used these tools. For instance, using YouTube for showing clips seems not any more novel than using a videocassette—unless one takes advantage of the blog function of YouTube.

By the same token, student teachers pointed out that their IEP learners seemed to lack technology access or that they had low electronic literacy skills. This constituted an issue especially in beginning-level classes. Student teachers’ negative prior experience also had an impact on current praxis: Some student teachers articulated their own dislikes
of a certain tool, which they subsequently did not use in teaching. Other factors include a lack of time, insufficient preparation and support, and learners’ lack of access and lack of electronic literacy skills.

Moreover, a number of respondents seemed to view lesson planning and web tools as two separate things. Technology appears to be something that should be tackled once the lesson plan is done rather than something that constitutes an integral part of lesson planning. Finally, student teachers thought that technology could not replace face-to-face communication.

IMPLICATIONS

Based on the results of this study, we identified major challenges such as student teachers’ lack of training and/or negative prior experience using technology as well as a mismatch between self-rated proficiency in technology tools and the frequency of use of these tools in their classrooms. We suggest the following to promote student teachers’ professional development.

Implementing Technology Across the Program Curriculum

We would like to echo previous calls to move away from isolated CALL coursework to a succession of situated technology experiences for teachers (Egbert et al., 2002; Luke & Britten, 2007). Student teachers need to be encouraged and trained to use the tools in which they already consider themselves proficient (e.g., Skype) in a pedagogically sound way. One way of achieving this is for teacher educators to implement tools like blogs and discussion forums, or course management systems (e.g., Moodle) as course platforms and communication tools in all core courses in the program.

Establishing a Mentor Model

According to one of the results of the study, lesson planning is given great importance in training novice teachers. Keeping this in mind, a group of graduate students could assist these student teachers as “tech fellows” across the program for meaningful and effective integration of technology in their classrooms. This could be in line with something the department at the graduate institution, where this study was conducted, has already begun to implement to help faculty across the various programs. This training can function in a similar way as a
teaching assistant experience, or, as one respondent put it, as a “volunteer tech group of instructors and student teachers, with considerable educational tech-knowledge, skills, and experience” (R4).

It is also possible to suggest pairing up teaching partners in a mentor–model fashion. This means that electronic literacy skills would need to be taken into consideration in addition to prior teaching experience and context and English proficiency levels. More specifically, practicum students could be required to fill out a needs analysis to indicate what they need help with in terms of technology use in teaching. This background information could also be shared on a joint IEP platform like Google Sites or Moodle, and the more tech-savvy teaching partners could become the designated tech experts who provide assistance by putting up “frequently asked questions” and answering inquiries by the tech novices.

Making Technology Use a Requirement in the Practicum Courses

Implementing technology in teaching should be made an integral part of every practicum especially since most student teachers have some exposure to different tools in the methods course. Additionally, building on one of the results of the study, which showed that experienced teachers employ more variation in their choice of technology tools, using technology could be made a requirement for the assessment of student teachers’ end-of-term electronic teaching portfolio. For example, they could be required to include one technology-based lesson (using a technology tool), a peer observation of a tech-based lesson, and a reflection thereof.

By the same token, training language learners in using technology should be a required component of the syllabus of any IEP class. First, student teachers need to assess their learners’ electronic literacy needs. Second, the advantages of technology use for language learning need to be made explicit to English as a second language (ESL) learners. Moreover, student teachers could stimulate their learners’ interest by highlighting the relevance of Web 2.0 tools to their personal lives. For example, most ESL students have family abroad, and tools such as Skype can help them stay in touch.

Lastly, the electronic portfolios, which are already an integral part of the practicum, could be implemented throughout the program as part of the exit mechanism. By the same token, these technology-based requirements call for tech-savvy teacher trainers to train and scaffold student teachers accordingly.
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REFERENCES


Effects of Four Vocabulary Exercises on Facilitating Learning Vocabulary Meaning, Form, and Use

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Empirical studies on vocabulary learning have confirmed the advantage of reading with a vocabulary task over reading without the task (e.g., Keating, 2008; Laufer, 2003; Paribakht & Wesche, 1997; Zimmerman, 1997). However, researchers have not come to an agreement as