Technology Use in Collegiate Foreign Language Programs

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Abstract

Although technology use to support learning in Foreign Language (FL) courses is no longer in question and has substantially increased in the last decade, the ways in which collegiate FL programs approach and train instructors for its use have not been addressed as directly (Allen & Negueruela-Azarola, 2010; Angus, 2017; Lord, 2014; Pfeiffer, 2008). According to the ACTFL and the Partnership for 21st Century Skills (2011), using technology is a must “in order to function in a knowledge economy” (p. 16). As called for by the MLA AD Hoc Committee on Foreign Languages (2007), “graduate studies should provide substantive training in language teaching and in the use of new technologies” (p. 241). While this statement is supported by many in the field of SLA (Lord, 2014; Melin, 2000; Muyskens, 1997), gaps persist in understanding how language program directors (LPDs) and graduate teaching assistants (TAs) view and approach the use of technology in their classrooms. This paper aims at filling these gaps by raising two questions: 1) How and for what purposes is technology used in collegiate level FL classrooms? and 2) What type of technology training is offered for TAs in FL programs? Two online surveys were administered in the current study to answer these questions. We collected data from TAs and LPDs in various collegiate foreign language departments around the United States about their current technology use in their classrooms and programs, as well as the training they have offered or received. Our findings reveal several discrepancies between LPDs and TAs in views surrounding the purpose of technology and the role of professional development. In particular, our findings show a great lack of technology training that discusses pedagogical frameworks on digital literacies and promotes professional collaboration among LPDs and TAs, such as in selecting and reflecting on teaching methods and approaches, and developing and carrying out research related to technology use in FL classrooms. Responding to these findings, we provide several suggestions to address shortcomings in training and technology use identified by participants in the current study and the review of the literature.

Keywords: Foreign language teacher training, technology, professional development

Introduction

Much of the research within Second Language Acquisition (SLA) and Computer-Assisted Language Learning (CALL) explores the benefits of various technologies and the ways in which they affect language learning and acquisition processes. Scholars have demonstrated a seemingly endless list of possibilities available to foreign and second language learners through the use of technology, such as noticeable development in oral and written proficiencies, increased

This body of literature continues to develop just as rapidly as the capabilities of technology for education; however, few studies emphasize the experience of language instructors while learning to use and implement new technologies for language teaching (Anderson & Maninger, 2007; Anderson & Williams, 2011; Cope & Ward, 2002; Kessler, 2007; Lam, 2000). Even fewer consider the unique experience of graduate teaching assistants and evaluate the extent to which graduate programs in foreign languages and literatures “provide substantive training in language teaching and in the use of new technologies” (MLA Ad Hoc Committee on Foreign Languages, 2007, p. 241). While the MLA 2007 report should not serve as the sole reason to offer training in technology to graduate student instructors, it does help to substantiate the need for further research to explore the opportunities that are being offered and the extent to which the call for professional development is being answered.

The current study contributes to the limited body of literature that addresses this population of language instructors, and explores the ways in which graduate teaching assistants view, are trained for, and approach the use of technology in their language classrooms (Angus, 2017; Lord, 2014; Melin, 2000; Muyskens, 1997; Thoms, 2013). Calling on the perceptions of graduate teaching assistants and language program directors from universities across the United States, the current study sought to respond to the following research questions:

1. How do graduate teaching assistants (TAs) and language program directors (LPDs) perceive the current use and usefulness of technology in the foreign language classroom?
2. How do TAs and LPDs view the current state and role of technology training in professional development?

Through a mixed, qualitative and quantitative approach to survey data, this study provides a window into the current state of technology use and training for TAs teaching in collegiate foreign language (FL) programs. Analysis and discussion of this survey data seeks to provide several suggestions for addressing various shortcomings in training and technology use identified by participants in the current study and the review of the literature. What follows is a brief review of existing literature that inquires into student and instructor perceptions of technology use in the language classroom, as well as several studies concerning the training and professional development of TAs.

**Literature Review**

**Technology Use for Foreign Language Learning**

Students enrolled in language courses are often called upon to provide insight on the potential of new technologies for facilitating language learning. This insight occasionally points towards some hesitation from students to mix their private and public spheres through the implementation of technology. Winke and Goertler (2008), for example, revealed a large discrepancy between students’ beliefs towards the role of technology in their daily lives and its role as an educational tool. In a 900-participant study based on survey responses, only 4% of students identified the potential for their everyday technologies to be useful in the foreign language classroom. In a follow-up study, Winke, Goertler, and Amuzie (2010) utilized both the 2008 data and an expanded
participant population to focus on those students enrolled in commonly and less commonly taught language courses (CTL and LCTL respectively). A comparison of these demographics with those from the 2008 study produced similarities in self-reported computer literacies overall, but also revealed a lower, self-reported computer literacy among students enrolled in LCTL courses. This result was interpreted by the authors as an effect of less technology use in these courses overall.

Following in the footsteps of scholars concerned with the connections between students’ technology use in and outside the classroom (Hubbard, 2013; Jones, Ramanau, Cross, & Healing, 2010; Kim, Rueckert, Kim, & Seo, 2013; Steel and Levy, 2013), Williams, Abraham, and Bostelmann (2014) administered a series of surveys to over 800 undergraduate student participants in order to research students’ current use and preferences of digital tools, and the extent to which they view themselves as “digital natives” (Prensky, 2001, p. 1). Results reveal that a majority of students possesses some kind of internet-capable mobile device, as well as a large majority (93%) that rates their skills with these tools as average or higher than average. One conclusion drawn from these results is a high potential for the foreign language instructor to implement mobile-based learning technologies in the classroom. While a majority of participants did not agree that they were “digital natives”, their self-written definitions of “digital literacy” aligned well with one another and suggest a relatively high level of existing knowledge in the area of digital technologies.

Theory, research, and pedagogical practice have recently turned to the examination and implementation of digital texts to promote a collaborative space in which language learners can negotiate meaning, develop new social identities, and interact together to create learning and speaking communities (Kessler, 2013; Lomicka & Lord, 2009, 2012; Lotherington & Rhonda, 2014; Reinhardt & Thorne, 2011; Warschauer & Grimes, 2007). Social media platforms such as microblogging (e.g., Twitter) have been shown to not only facilitate a “sense of community” among language learners, but also create enthusiasm for building “social presence” and interaction between fellow learners and speakers of the target language online (Lomicka & Lord, 2012, p. 58). With the continued development of and shift towards pedagogies based on multiliteracies frameworks, social media and other Web 2.0 platforms are often used to encourage collaboration, negotiation, interpretation, and transformation around and through texts. Digital social reading and digital annotation tools, for instance, allow students to read collaboratively both inside and outside of the classroom, helping to establish a learning community that exists outside the boundaries of the classroom and supports a deeper, multimodal understanding of the texts with which its members engage (Blyth, 2014; Gonglewsksi, Meloni, & Brant, 2001; Thoms & Poole, 2017).

**Foreign Language Instructors, Technological Tools, and Training**

While data from the previously discussed studies present crucial information about potential affordances and benefits of the use of technology in the classroom, it is also important to acknowledge that students are not the only stakeholders involved in technology implementation. Perceptions of foreign language instructors and the development of digital literacies related to technology for foreign language teaching are often overlooked. Some scholars, however, have investigated the role of teacher perspectives and approaches to teaching in creating a supportive environment for the implementation of technology. In the Canadian high school context, Parks, Huot, Hamers, and H-Lemmonier (2003) conducted qualitative interviews with three teachers of different subjects in an “innovative program for Francophone high school students” that emphasized the use of technology and project-based learning in an experiential, project-based approach that is generally more constructivist in nature than “traditional pedagogy” (p. 37). The pedagogical beliefs and constructivist epistemologies of the instructors were considered key
building blocks for the successful implementation of the technological interventions this particular program put forward.

Just as Parks et al. (2003) highlight the significant role of instructor perspectives in the process of integrating curricular material and technology, the current study emphasizes the role of TA perspectives in the productive and efficient use of technology in the FL classroom. Several others have considered the context of collegiate FL teaching and the professional development of graduate students as FL instructors (Anderson & Maninger, 2007; Cope & Ward, 2002; Kessler, 2007; Rava & Rossbacher, 1999). Through online surveys, Thoms (2011, 2013) inquired about the training TAs receive at their respective institutions, the technologies that are targeted by this training, their general perceptions of the effectiveness of this training, as well as the factors they feel inhibit their ability to use technology in the classroom. Survey data revealed that, while the majority of instructors received some training, most of it occurred during their first year of instruction, and very little focused on modern, interactive technologies such as Web 2.0 platforms. A general lack of time proved inhibitive of TAs’ ability to experiment with and create lessons based on these technologies.

While some of Thoms’ (2011, 2013) suggestions may be unrealistic for many collegiate FL programs (i.e., course releases for TAs, assisting the LPD in course design), his call to provide TAs with more representative and in-depth training in the implementation of technology in the classroom cannot go unanswered. Several successful training models for foreign language TAs already exist, and provide valuable examples for designing, implementing, and assessing various training methods.

One approach taken by Zannirato and Sánchez-Serrano (2009) includes the collection of a variety of stakeholder perspectives on the “desirable teaching training practices of the TAs” (p. 97). Primary stakeholders consisted of, in this case, LPDs, section heads, directors of graduate studies (DGSs), and the department head. TAs were identified as “secondary”, as they were not directly involved in the decision-making processes for the departments. This particular decision to overlook TAs as primary in this context is problematic, as they should experience this teacher training first-hand. After analyzing the questionnaire data and classroom observation reports, researchers found that a majority of stakeholders “agreed with the potential benefits of a formal teacher training program for TAs” (Zannirato & Sánchez-Serrano, 2009, p. 110). Stakeholders were also of the opinion that if the willingness to commit to this training as part of their teaching of foreign languages was not present in TAs, the training would be all for naught. Others viewed a training program or course as a burden and believed that there was no effective way for TAs to bring this knowledge into their undergraduate courses. Questionnaire respondents provided several suggestions for a training course, which included providing TAs with opportunities to interact with experienced TAs, to discuss and analyze difficulties in teaching, to visit each other’s classes, to learn about efficient and original lesson planning, to design assessments, and to experiment with a variety of teaching methods. Ultimately, Zannirato and Sánchez-Serrano (2009) conclude that a training program should “contribute to a change in perception of the importance of formal academic training in SLA and foreign language teaching” (p. 111), and should include content on practical applications of teaching methodology, assessment creation, grammar instruction, and applied SLA theory.

Current training and professional development practices can also be evaluated through the ever-present teaching methods course that is often required for foreign language TAs. Angus (2017) approaches this context through the examination of content related to technology in methods-course syllabi. This investigation revealed a lack of emphasis on innovative uses of
technology for learning and teaching, and, in some cases, a tendency for TAs to receive substandard training in evaluating and using new technologies. Angus (2017) provides numerous suggestions for the improvement and redesign of FL teaching method syllabi. For example, syllabi should include literature that not only provides an overview of various pedagogical approaches, but discusses ways in which these approaches and teaching methods are paired with technology and course content. Review of this literature should then involve reflecting on the alignment of technology with pedagogical content and goals, and designing applications of this technology in the FL classroom (Lord, 2014).

Scholars concerned with the limitations of current TA professional development and technology training offer several additional, technology-mediated solutions to assist in filling this gap. In response to the need for instructors to experience regular training in the area of technology, Lord and Lomicka (2004) developed a graduate-level course titled “Technology in Foreign Language Education.” This course utilized computer-mediated communication and discussion between students at two different institutions, and presented content related to the theoretical and practical connections between pedagogy and technology, computer-mediated interaction and telecollaboration, as well as virtual reality (Lord & Lomicka, 2004, p. 402). The results of this course are well aligned with the suggestions for training made by both Thoms (2011) and Zannirato and Sanchéz-Serrano (2009), in that students were instructed on relevant pedagogical and technological approaches to teaching foreign languages. Much like the exploratory practice advocated by Crane (2015), this course also allowed for students to create and implement projects and make connections to their own teaching using the skills they acquired along the way. These studies demonstrated a positive outcome for the professional development of TAs; however, as the findings of the current study suggest, the need for more studies surrounding the kind of professional development described by the previously discussed literature remains prominent in collegiate FL programs.

The Current Study

For this study, we designed two online surveys for Graduate Assistants in Teaching (TAs) and Language Program Directors (LPDs) using Qualtrics, an online, data collection and analysis software application. The surveys consisted of both multiple choice and open-ended questions, with a total of 26 items for TAs and 27 items for LPDs. Survey questions for LPDs were organized into four parts: background information, current state of technology training offered to TAs, evaluation of current TAs’ technological use, and attitudes towards developing training in the future. The survey questions for TAs focused on three primary aspects: self-evaluation of technology use in language teaching, perceptions of current training offered by FL departments, and expectations of possible future training.

The surveys were distributed nationwide through the directory list from the American Association of University Supervisors, Coordinators, and Directors of Language Programs (AAUSC) in Spring 2017. We then contacted LPDs via email, who further assisted in distributing the TA survey in their programs and departments. 33 LPDs responded and completed the online survey. Of these, 27 LPDs obtained doctoral degrees from foreign language departments with emphasis in literature, linguistics, and second language acquisition, and six held master’s degrees in related fields. A total of 39 TAs completed the online survey. Unlike LPD participants, who earned degrees primarily in Foreign Language (FL) departments, TA participants represented various educational backgrounds, including literature, linguistics, economics and political sciences. Background information of the LPD and TA participants is shown in Table 1.
Table 1. Profile of LPD Survey Respondents

<table>
<thead>
<tr>
<th>Background Summary</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LPDs</td>
</tr>
<tr>
<td>Type of Institution</td>
<td></td>
</tr>
<tr>
<td>- Public</td>
<td>64.52</td>
</tr>
<tr>
<td>- Private</td>
<td>35.48</td>
</tr>
<tr>
<td>Location of Institute</td>
<td></td>
</tr>
<tr>
<td>- Northeast</td>
<td>22.58</td>
</tr>
<tr>
<td>- Southeast</td>
<td>16.13</td>
</tr>
<tr>
<td>- Midwest</td>
<td>25.81</td>
</tr>
<tr>
<td>- Southwest</td>
<td>9.68</td>
</tr>
<tr>
<td>- West</td>
<td>25.81</td>
</tr>
<tr>
<td>Terminal degree</td>
<td></td>
</tr>
<tr>
<td>- PhD</td>
<td>81.81</td>
</tr>
<tr>
<td>- Master</td>
<td>18.19</td>
</tr>
<tr>
<td>- Bachelor</td>
<td></td>
</tr>
</tbody>
</table>
Breakdown by Language

- French 15.96 18.09
- Spanish 15.96 20.21
- German 13.83 19.15
- Chinese 10.64 5.32
- Russian 9.57 6.38
- Italian 7.54 11.70
- Japanese 7.45 4.26
- Portuguese 7.45 8.51
- Others 7.45 6.38
- Korean 3.19 0.00
- Turkish 1.06 0.00

In the next section, we first report the descriptive statistical analysis of the data, and then qualitatively analyze several emerging themes found in the survey data.

**Results**

The results are organized and presented below based on the two research questions we addressed in this study, and discussed in further detail based on several overarching themes recognized in the data.

1. How do graduate teaching assistants (TAs) and language program directors (LPDs) perceive the current use and usefulness of technology in the foreign language classroom?

**Expectations vs. reality.**
All LPD and TA participants supported and have used a variety of technological tools in FL classrooms. A summary of the technological tools used by TAs in pedagogical, professional, and personal settings can be found in Table 2. Survey responses revealed a pattern among LPDs in their expectations for technological tools that TAs have used in the classroom; that is, a majority of LPDs expected that presentation tools and online media were being implemented in the classroom by TAs. TAs reported using presentation tools, online multimodal resources, and online textbooks and workbooks most frequently, while social networking sites and mobile apps were used less often or not at all.
While these general patterns of use and expected use aligned closely between TAs and LPDs, there are several discrepancies worth noting, including the level of diversity in the types of technology implemented by TAs. For instance, TAs reported the use of collaborative platforms, blogs, digital games, etc. while LPDs provided brief descriptions of what might have been used highlighting presentational technologies. These findings suggest that, while TAs have the opportunity to use technological tools in their classrooms as a complementary element of their language class, there does not seem to be an agreement with nor set guidelines provided by LPDs for how to use these tools, particularly in conjunction with the pedagogical framework(s) and approaches to which the program subscribes; that is, 58% of TA participants reported a lack of time spent discussing technology as it aligns with a certain pedagogical framework.

Table 2. Current State of Use and Training of Technological Tools

<table>
<thead>
<tr>
<th>Technological tools</th>
<th>TAs have used in FL classrooms</th>
<th>TAs have used in personal lives</th>
<th>LPDs think TAs have used in FL classrooms</th>
<th>discussed in training sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation Tools</td>
<td></td>
<td>Social Networking Website/App</td>
<td>Presentation Tools</td>
<td>Course Management Platforms</td>
</tr>
<tr>
<td>(24)</td>
<td></td>
<td>(21)</td>
<td>(22)</td>
<td>(12)</td>
</tr>
<tr>
<td>- PowerPoints</td>
<td></td>
<td>- Facebook</td>
<td>- PowerPoints</td>
<td>- Canvas</td>
</tr>
<tr>
<td>- Prezi</td>
<td></td>
<td>- Instagram</td>
<td>- Prezi</td>
<td>- Blackboard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Twitter</td>
<td></td>
<td>- Smart Site</td>
</tr>
<tr>
<td>Online Videos/Audios (22)</td>
<td></td>
<td>- YouTube</td>
<td>Online Videos/Audios</td>
<td>Online Textbook/Workbook</td>
</tr>
<tr>
<td>- YouTube</td>
<td></td>
<td>- Podcasts</td>
<td>(22)</td>
<td>(7)</td>
</tr>
<tr>
<td>- Podcasts</td>
<td></td>
<td>- Netflix</td>
<td>- YouTube</td>
<td></td>
</tr>
<tr>
<td>Online Textbook/Workbook (7)</td>
<td></td>
<td>Other Online Multimodal Resources (9)</td>
<td>Other Online Multimodal Resources</td>
<td>Presentation Tools (5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Online News</td>
<td>(18)</td>
<td>- PowerPoints</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- BuzzFeed Articles</td>
<td>- Websites</td>
<td>- Prezi</td>
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<td></td>
<td></td>
<td>- Wiki</td>
<td>- Newspapers</td>
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<td></td>
<td></td>
<td></td>
<td>- Magazines</td>
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</tbody>
</table>
The purpose(s) of technology.
While all LPD and TA participants agreed on the necessity of using technology in language teaching, their understanding of its purpose in the classroom varies. LPDs saw technology as a necessary tool to maintain a certain standard, and as a way to encourage and facilitate interactivity, multimodality, authenticity, effectivity, and time-management in the classroom (see Table 3).
Table 3. Purposes of Using Technologies in FL Teaching (LPD Perspective)

<table>
<thead>
<tr>
<th>Purposes of Using Technologies in FL teaching</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement (17)</td>
<td>“It is a requirement and standard”</td>
</tr>
<tr>
<td>Authenticity (15)</td>
<td>“.. enhances immersive learning with authentic materials”</td>
</tr>
<tr>
<td>Interactivity (14)</td>
<td>“It maximizes students’ engagement”</td>
</tr>
<tr>
<td>Effectiveness (13)</td>
<td>“… conveys ideas and get feedback effectively”</td>
</tr>
<tr>
<td>Multimodality (13)</td>
<td>“… provides multimodal and visualized resources”</td>
</tr>
<tr>
<td>Time and Money-saving (12)</td>
<td>“saves money and time (e.g. convenient access)”</td>
</tr>
</tbody>
</table>

Many LPDs understood the implementation of technology as a requirement in university-level courses. TAs, on the other hand, elaborated on their own goals and reasons for integrating technology into FL teaching, and frequently mentioned collaboration and relationship building as primary reasons behind its inclusion. For example, TAs valued collaborative platforms such as Google Docs to provide an interactive and flexible environment for students to collaborate with one another. The excerpts below (Excerpt 1) illustrate the importance of the collaborative nature of technology for TAs, which is noticeably absent from LPD responses.

**Excerpts 1**

“I use Google Docs when I want students to collaborate on a writing assignment--they can correct each other's' mistakes and I can display their work on my screen as well.”

Google docs so the students can interact and collaborate in real time in class and share ideas.”

This excerpt not only emphasizes collaboration between the instructor and students, but shows initiative to engage learners in critical thinking and developing agency and autonomy in their learning process. Another crucial reason for using technology mentioned by TAs is how social networking platforms and apps could “create bridges between instructor and students”. These concepts concerning the various roles of technological tools are not discussed in survey responses from LPDs. Only one LPD described the important role of technology as a tool to accompany a pedagogical approach, pointing out the infrequency of pairing these tools with appropriate pedagogical frameworks: “There is a wow-effect among instructors (i.e. using technology without a clear sense of how it is supporting learning)”. The LPD points out that not
knowing how to use a technological tool for a pedagogical purpose leads to inappropriate instruction and activity design. In addition, using the tools unwisely may cause distraction and waste time in class.

2. How do TAs and LPDs view the current state and role of technology training in professional development?

Limited discussions about technology in professional development. When LPDs were asked whether they think the technologies currently used in FL courses are effective or not, they all expressed more concern about “how instructors use these technologies” rather than “what to use”. The following excerpts (Excerpts 2) provide an example.

**Excerpts 2**

“I think the types of technology are appropriate, but we probably need more discussion of methods.”

“Many of the tools are also able to “take” them outside of the class, sometime even abroad, which is a good thing for a language class. […] Does this create better students? I have my serious doubts.”

LPDs are concerned about teaching methods used along with technology, and recognize the need for more discussion on the pedagogical purposes of technology. They also point out that technology will not necessarily “create better students”. Since we do not have follow-up interviews with the LPD participants, we can only stipulate on what is meant by “better students”. One assumption might equate “better students” with more motivated learners or learners who attain higher levels of proficiency. While proficiency is an important element of language learning, the role of technological tools should be considered influential on other aspects such as learners’ participation in learning.

TAs and LPDs reported a limited number of tools that are discussed during training sessions (see Table 2). Course management platforms, online textbook, workbook and PowerPoint presentations, sometimes considered “Web 1.0 tools” (Angus, 2017, p. 318), tend to dominate discussions, demonstrating that, while technology use does have a pedagogical purpose, it reflects a traditional, objectivist pedagogy that is limited to fulfilling the purpose of carrying, producing and presenting information. These results mirror those found by several other survey-based studies, which revealed a tendency for graduate-level teaching methods courses to emphasize Web 1.0 technologies and overlook more interactive and collaborative tools for learning (e.g., Web 2.0 technologies) (Dhonau, McAlpine, & Shrum, 2010; Thoms, 2013). While we acknowledge, as do numerous scholars, that these management tools should and do play a role in FL courses and learner autonomy (Lord, 2014), it seems that the current structure of professional development sessions does not reflect accurately the reported desires and practices of TAs’ concerning the role and use of technology in FL teaching and learning. This tendency to devote more time to troubleshooting systems surrounding course and content management than to innovating and designing technology-mediated tasks (e.g., activities involving Web 2.0 technologies) during professional development sessions implies that TAs are given more autonomy to decide if and how to use Web 2.0 technologies, signaling a need to spend more time on careful examination of and reflection on appropriate pedagogical approaches to be paired with the technology they choose to use.
All LPDs reported that their FL programs organized workshops and training sessions for TAs during the academic year 2015-2016, and more than 45% of the programs held three or more training sessions within an academic year. In addition, 83.87% of the programs devoted time to discussing technology use in these training sessions, while 18 programs left more than one hour in these sessions to talk about technology use. However, these trainings focused primarily on online textbook materials and grading platforms. Few training sessions designated time for discussing other technological tools, how to integrate these tools with pedagogy, and functions of technology in language teaching. Excerpts 3 depict two examples of LPDs’ general descriptions of TA training sessions and workshops on technology use.

Excerpts 3

“...For more advanced levels (e.g. third-year) there is a greater focus on instructional technology and Web 2.0 technologies. In part this is an attempt to achieve balance in professional development, but I think we could do more with that in year one. [...] I don't think you can learn to use technology effectively as a teacher until you have a sense of why you might use it and that means having a solid grasp of learning outcomes and language development.”

“Most of it comes from the input given from our Graduate Students...They are allowed to experiment, after my approval, with all the technology they desire often report back on the results during the workshop. Several language apps and use of social media are some of the things we do in our intermediate level which were experimented first by our TAs.”

Graduate students at this particular institution in their third year or beyond have an opportunity to focus on Web 2.0 technologies. New and novice instructors, however, often do not have access to technology-related training. They are encouraged to implement new digital tools inside the classroom with the approval of their LPD, yet, without teacher collaboration and systematic training, it is difficult for this individual experimentation to lead to innovation. Words such as “attempt,” “achieve balance,” and “do more” all reveal the immature situation and urgent need of technology-related trainings, especially for novice instructors. Most technology-mediated teaching is, therefore, implemented in intermediate or upper FL levels, since novice and new instructors often begin teaching lower-level language courses. These phenomena, again, embody the lack of systematic professional development for TAs.

Although most of the departments hold trainings for TAs more than twice a year (58.34%), trainings were not related to technological use. Only thirty percent (30%) of TAs reported receiving training on technology during the academic year 2015-2016. Within the group that did receive technology-related training (10 TAs total), only three TAs attended training or workshops that were designed for integrating technologies in FL teaching.

Current and future role of technology training.

An overwhelming 90% of TA participants reported that they would like to attend trainings on technology use in the classroom and learn more about the issues and challenges related to technology integration. When it comes to willingness to collaborate, 56% of TAs indicated that they had never had the opportunity, but that they are willing to work collaboratively with other colleagues in terms of learning how to employ technologies in the FL classroom. 74% of LPDs stated that they are willing to collaborate with TAs to further develop and research technology use in FL classrooms. TAs expressed their interest in attending technology trainings that emphasize 1)
how to pair technology with pedagogy (“Utilizing technology in the framework of teaching methods, so we don't use technology for technology's sake”), 2) how to use it effectively in the classroom (“Technology in the classroom, technology as part of a multi-day unit with it being used outside of the classroom to prepare for class, teaching students to use online dictionaries effectively and not turn to translation software”), 3) how to collaborate with other colleagues and LPDs and share resources (“I would like to have a portal or archive where lesson plans are completely designed already. Something on creative commons for all instructors to access legally.”), and 4) how to use it for critical thinking (“How to use media for critical thinking analyze how content is presented online, use the availability of different perspectives to set them against each other”).

The last section of the LPD survey examined their opinions toward adopting a teacher training program on technology in their departments. All LPDs stated that they are willing to adopt a systematic model that could align with the pedagogical principles and content of their language programs. One LPD pointed out that these kinds of workshops usually exist on campus, but they are not designed particularly for FL teaching. Most technology-related workshops offered by campus technology centers often focus on general knowledge of what to use and how to use a particular digital tool. They explained that it is difficult to gather enough information about these workshops and distribute it to TAs. Secondly, they do not require TAs to attend these workshops, often because the topics may not be relevant to all of them. This, in turn, makes it challenging to ensure they attend these training sessions. Despite the difficulty in planning and making training available, the majority of LPDs explained that equipping TAs with technological knowledge and skills would be beneficial to them in their future careers.

Through the investigation of LPD survey responses related to technology training for TAs in the present and for the future, we thus observed that 1) the current trainings are not sufficient to meet the needs of FL programs; 2) the current focus of professional development is on “what to use” rather than “how to use [technology] in the FL classroom”; and 3) both TAs and LPDs are open to collaboration and to make changes to their current professional development on technology.

**Discussion**

When we asked TAs to report on their professional development workshops related to technology, they explained that during the regular departmental workshops, they primarily discuss how to use a specific technological tool rather than why they are using it. Aside from discussing the use of technological tools to facilitate productivity, none of the TAs reported having discussions on the pedagogical purpose of using technology that facilitates participation in learning. TAs reported that they do use these tools (e.g., memes, Wikis, Twitter, digital games, and digital portfolios); however, LPDs appear to be unaware or have vague information on the use of these tools in language classrooms. These findings indicate the need to address the lack of communication and clarity of expectations between LPDs and TAs, and corroborate findings from previous research that point toward the need to spend time discussing methods and “pedagogical foundation” during professional development (Hubbard, 2008, p. 185).

Our aim in this study was to provide suggestions for designing and developing a supportive training model of technology use in the FL classroom. Based on the received responses and previous studies, we have several recommendations. During professional development workshops, opportunities should be provided to TAs to select and present research articles on technology use that are designed with a pedagogical purpose, and as a possible option, to collaboratively create a literature review on the technology in question. The opportunity to present will help TAs feel
valued and that they belong to the department (Anderson, 1983; Spitulnik, 1996) while assisting LPDs in finding pedagogical frameworks that are more suitable to the vision of the department. The presentation itself and the responsibilities that TAs take on could serve as professional development, maintain and encourage collaboration at the departmental level between faculty and TAs, and open up opportunities for future publishing. These practices can also provide solutions for the scarcity of collaboration within FL departments demonstrated in this paper and in previous studies (Norris & Davis, 2015).

As many have argued, a core focus of teacher technology education should be on developing learning skills to critically evaluate frameworks that can help later during project development (Chapelle & Hegelheimer, 2004; Reinders, 2009). Practice should therefore be linked with theory, an element that was reported missing from professional development by TAs and LPDs in this study and highlighted in previous studies (Cochran-Smith & Lytle, 1993; Freeman & Richards, 1996). Ideas about using new technological tools with a pedagogical purpose should be put into practice. Following this implementation, stakeholders should discuss the outcomes during faculty meetings, conduct and report pilot study surveys, and select the best combination of tools that is to be used in all of the levels of the language program. These pilot studies and discussions on pilot studies provide opportunities for reflection, a key step in professional development emphasized by many scholars (Crane, 2015; Richards, 1998; Wallace, 1991).

One of the primary goals of this training should be to implement technology while knowing why it is used and what learning outcomes it can facilitate in reaching. To accomplish this, it is important to have a clear idea of the pedagogical framework and approaches with which the program seeks to align. One recommended approach is to pair the multiliteracies framework (New London Group, 1996; Paesani, Allen, & Dupuy, 2015) with bridging activities (Reinhardt & Thorne, 2009; Reinhardt, Warner, & Lange, 2014). The multiliteracies framework is a literacy-based approach that unifies the study of language with literary and cultural content (Paesani, Allen & Dupuy, 2015). It is an approach that “focuses students’ attention on the interactions between linguistic form, situational context, and communicative and expressive functions” (Kern, 2003, p. 51). The implementation of a multiliteracies framework allows for a purposeful use and a narrowed focus on a specific genre, which can ultimately increase learning outcomes (Conole, 2014; Laurillard, 2013; McLoughlin & Lee, 2007). For instance, a course that focuses on specific topic(s), a specific genre using social media and multimodality can be developed. In case this is not a practical choice for the program, multiliteracies can be also implemented to complement, and perhaps, bridge the textbook activities with digital literacy activities (Thorne and Reinhardt, 2011; Reinhardt & Zander, 2011). The bridging activities model (Thorne and Reinhardt, 2011) connects the classroom with the realities of learners’ worlds outside of the classroom. Highlighting the digital technologies that learners use on a daily basis, this framework motivates learners to explore, collect, analyze, create, and participate in online learning activities.

In the current study, LPDs did not indicate having any permanent committees or focus groups to design curriculum and assessment, as some researchers have suggested (Maxim & Askildson, 2015). Previous research demonstrates the importance of program assessment and the development of effective student learning outcomes (Norris & Davis, 2015). During professional development workshops, course syllabi should be discussed and redesigned collaboratively by adding online engagement activities on technological tools that allow for participation in learning as an important component of the grade distribution and curriculum.

LPD and TA survey responses reiterate the claim that professional development is crucial for graduate associates (Byrnes, 2011; Melin, 2000; Lord, 2014; Jourdenais, 2015); therefore, we
recommend that departments offer at least one to two credit hours for the completion of professional development sessions and workshops. This practice rewards participation while acknowledging busy schedules. If TAs are not interested in publishing, they can continue to deliver presentations and contribute to discussions on their best practices of using technological tools. Thus, they maintain clear communication between LPDs and TAs, and illustrate that methods are critically considered and reflected upon when implementing technology.

Conclusion and Limitations

The current study and analysis of survey results provides much needed insight on how both Graduate Assistants in Teaching (TAs), and Language Program Directors (LPDs) perceive the current use and usefulness of technology in the foreign language classroom, and on the current and future role of technology training. While numerous kinds of technologies are currently present in many FL classrooms, technology use and professional development guiding its use continue to have their limitations. Our findings suggest that technology is often understood by both administration and instructors as a “convenient serendipity” (Clark, 2010, p. 28), a necessary element for teaching and learning; however, its pedagogical purpose often remains unclear without critical discussion and reflection concerning its application in the FL classroom. Moving forward, language scholars must change the agenda of technology trainings to better fit LPDs’, TAs’, and students’ needs. Professional development for TAs should dedicate more time to technology training, and provide increased opportunities for LPDs and TAs to collaboratively discuss, select, and test technologies that are well-aligned with pedagogical content and frameworks that highlight digital literacy. Thankfully, there are many possibilities to engage learners in our ever-changing digital era. We are hopeful that our findings and recommendations provide useful information and encourage FL departments to take action.

We acknowledge that this particular study has several limitations. First, after analyzing the data, some of the survey questions could be revised in order to point more specifically towards how technology is used instead of what type of technology is used. In question 8 of the LPD survey, we asked about the technology topics that are discussed during workshops. More guided questions concerning pedagogical frameworks and teaching methods would have revealed more details of the “how” of technology use.

Second, because the present survey was conducted through use of an online mailing list (i.e., AAUSC listserv), its participants are not representative of the entire United States; by expanding the data sources to include an increased number of foreign language departments, the survey can provide a more complex picture that is not limited to the members of a single listserv. Findings that are reported here therefore cannot be generalized to all foreign language departments in the country. However, the current study provides meaningful data in informing university-level language educators and graduate advisors on the current state of technology use in FL programs, and opens up new possibilities for future directions in research and professional development. Finally, the recommendations provided here will need to be modified to better fit a specific FL program. Future research is needed to implement some of these recommendations and to report on the outcomes. We pose that our study is an attempt to encourage future collaboration between scholars, TAs and LPDs in order to improve professional development by addressing the crucial role of technology in FL education.
Note
For the purpose of this article we define TA as a teaching associate and/or a graduate teaching assistant or associate.

The whole paper is the result of close cooperation between the authors. Chelsea Timlin is responsible for the first section (Introduction, Literature Review) and revisions, Yi Wang is responsible for the second (Methodology, Findings) and Borbala Gaspar for the third section (Discussion, Conclusion and Limitations) and revisions.

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References


ACTFL Standards (2011).


Appendix A. LPD Survey

Thank you for taking time to complete this anonymous survey. There are 22 items, both multiple choice and free-response. It takes approximately 10-20 minutes to complete this survey. Should you have any questions, please feel free to contact any of the researchers: Borbala Gaspar bgaspar@email.arizona.edu; Chelsea Timlin ctimlin@arizona.edu; Yi Wang yiw@email.arizona.edu;

For the free-response questions, please be as thorough as possible. This survey has been distributed nation-wide, and your answers will be treated anonymously in confidence. Your collaboration is much appreciated and contributes to a better understanding of foreign language program dynamics and consequently can offer possible new directions from which we can all benefit.

We thank you for your time!

Background Information

1. My institution is…
   
   A. Private
   B. Public

2. My educational background is… (Example: PhD in Spanish Linguistics)

3. My institution is located in the…
   
   A. Northeast: (Such as Connecticut, Delaware, Maryland, Maine, Pennsylvania, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont)
   B. Southeast: (Such as: Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia)
   C. Midwest: (Such as: Indiana, Illinois, Iowa, Ohio, Kansas, Michigan, Missouri, Minnesota, North Dakota, Nebraska, South Dakota, Wisconsin)
   D. Southwest: (Such as: Arizona, New Mexico, Oklahoma, Texas)
   E. West: (Such as: Alaska, California, Colorado, Idaho, Hawaii, Montana, Nevada, Oregon, Utah, Washington, Wyoming)

4. Which language(s) best describe the focus of your home department? (Please mark all that apply.)
   
   A. Chinese
   B. French
   C. German
   D. Italian
5. If you selected other please specify the language(s).

**Technology Training**

6. How many workshop/training sessions for language instructors (including graduate teaching assistants) have you organized/held in the academic year 2015-2016?
   - One
   - Two
   - Three
   - Four
   - More than four
   - None

7. How much time is dedicated to discussing the use of technology for learning and teaching during these sessions?
   - More than an hour
   - Around forty five minutes
   - Around thirty minutes
   - Less than thirty minutes
   - None, we do not discuss technology (automatically to Question X)
   - Other

8. What kinds of technology-related issues are discussed during workshops/training sessions, and why?
   (short answer)

9. Which technological tools are discussed during workshops/training sessions, and why?
   (short answer)

10. Of the time spent discussing technology during these sessions, how much is focused on an online textbook/workbook and/or online course management system (e.g., D2L, Blackboard, etc.)?
   - All
   - Most
   - About half
   - Less than half
   - None, we do not discuss it
11. Do instructors (i.e., graduate students or adjunct instructors) have the opportunity to present during these workshops/training sessions? (If NO is selected, survey will skip automatically to Q13.)
   Yes
   No

12. What are some common topics of these presentations? (Short Answer)

13. Do you intend to organize at least one workshop/training session for instructors within the next year to discuss the use of technology for learning and teaching? If YES, what kinds of topics do you want to cover in the future training?

Technology Use
14. If your program utilizes an online component, who trains instructors in the use of this platform? Please mark all that apply.
   ● Language Program Director
   ● Customer Service/ Sales Representative from publisher
   ● Assistant Language Program Director
   ● Lead Graduate Student Instructor
   ● Do not use online component
   ● Other

15. To the best of your knowledge, please mark all the tools that instructors in your program use in their classes.
   ● PowerPoint/Prezi
   ● YouTube videos
   ● Social Media sites (e.g., Facebook, Twitter, etc.)
   ● Online texts (e.g. Websites, newspapers, magazines, etc.)
   ● Mobile/Tablet apps
   ● Online workbook/lab manual for the textbook
   ● Other (Please specify in question 16.)
   ● I don’t know

16. To the best of your knowledge, why do instructors use the tools you marked above? (short answer)

17. In your opinion, is the technology currently used in your program's foreign language courses effective for today’s undergraduate students? In what ways? (short answer)

18. What benefits and/or disadvantages do you associate with using technology in the classroom? (short answer)

19. What digital tools / technology tools do you frequently use for conducting personal business? Please list up to five of the most frequently-used tools on a daily basis listing them from the most commonly used to the last. (short answer)
What challenges do instructors in your program encounter / have they encountered while using technology for language teaching? (short answer)

20. Would you be interested in adopting a pre-developed training plan focused on the use of technology in foreign language pedagogy?
   Yes
   Maybe
   No

21. Given the opportunity by the department would you be interested in collaborating with Teaching Assistants and/or faculty members and work on research on technology with the goal of publishing together?
   Yes
   No
   Maybe

22. What topics would you like to see included in a training plan?
Appendix B. TA Survey

Thank you for taking time to complete this anonymous survey. There are 25 items, both multiple choice and free-response. It takes approximately 10-20 minutes to complete this survey. Should you have any questions, please feel free to contact any of the researchers: Borbala Gaspar bgaspar@email.arizona.edu; Chelsea Timlin ctimlin@arizona.edu; Yi Wang yiw@email.arizona.edu.

For the free-response questions, please be as thorough as possible. This survey has been distributed nation-wide, and your answers will be treated anonymously in confidence. Your collaboration is much appreciated and contributes to a better understanding of foreign language program dynamics and consequently can offer possible new directions from which we can all benefit.

We thank you for your time!

Background Information
1. My institution is…
   
   A. Private  
   B. Public

2. My educational background is (Example: BA in Spanish linguistics)

3. My institution is located in the…
   
   A. Northeast: (Such as: Connecticut, Delaware, Maryland, Maine, Pennsylvania, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont)  
   B. Southeast: (Such as: Alabama, Arkansas, Georgia, Florida, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia)  
   C. Midwest: (Such as: Indiana, Illinois, Iowa, Ohio, Kansas, Michigan, Missouri, Minnesota, North Dakota, Nebraska, South Dakota, Wisconsin)  
   D. Southwest: (Such as: Arizona, New Mexico, Oklahoma, Texas)  
   E. West: (Such as: Alaska, California, Colorado, Idaho, Hawaii, Montana, Nevada, Oregon, Utah, Washington, Wyoming)

4. Which language(s) best describe the focus of your home department? (Please mark all that apply.)
   
   A. Chinese  
   B. French  
   C. German
D. Italian  
E. Japanese  
F. Korean  
G. Portuguese  
H. Turkish  
I. Russian  
J. Spanish  
K. Other

5. If you selected other please specify the language(s).

6. Do you use technology in your classes for your language teaching?

7. What type of technologies do you use to assist your language teaching (e.g. PowerPoints, online discussion forums, blogs, wikis, audio & video tools such as podcasts, YouTube, social networking websites such as Facebook, twitter, digital portfolio)? Please write them in order from the most frequently used to the least. You can add more according to your own experiences.

8. What are your reasons for using these technologies? (Please explain in detail)

9. What technologies do you engage with for personal use (i.e., not during language instruction)?

10. Over the course of your TAship, have you attended any trainings/workshops focused on technology use in foreign language instruction organized by your department?

11. How many trainings/workshops does your department organize in a year?  
   1. One  
   2. Two  
   3. Three  
   4. Four and above  
   5. None

12. What do these trainings discuss and cover?

13. During these departmental training session did you learn about technology use specifically designed with a pedagogical framework? (Such as digital literacies or multiliteracies)  
   1. Yes  
   2. No

14. As a teaching assistant/associate at your current position, do you have, or did you have opportunities to develop lessons that are with the use of technology?  
   Yes  
   No

15. If you answered yes, what type of technology do you use and how many lessons are planned with this technology in a semester long course? Can you briefly describe the lessons?
16. Have you attended any trainings workshops on technology use in language teaching and learning outside the department where you teach?
Yes
No

17. Given the opportunity, would you consider participating in a training session focused on how to pair technologies with a pedagogical framework (e.g., Communicative Language Teaching, Task-Based Language Teaching, Multiliteracies, Digital literacies etc.)?

18. Given the opportunity would you be interested in researching new technologies paired with a pedagogical framework and to present your findings in a departmental workshop?

19. Given the opportunity by the department would you be interested in collaborating with faculty members and work on research on technology with the goal of publishing together?
Yes
No
Maybe

20. If you were to score the effectiveness of your use of technology for language learning in the classroom, what score would you give yourself
1 being "it could be much more effective", 10 being "extremely effective"

21. Given the opportunity, would you be interested in piloting and implementing new technologies impaired with a pedagogical framework into your foreign language classes?

22. Have you ever worked collaboratively with a colleague to develop and implement new technology use with a pedagogical framework in your classes?
- No, but I would prefer doing it alone
- Yes, but I would prefer not doing it anymore
- No, but I would like to do it, and I would even consider publishing the results
- Yes, and I would like to do it again
- I am not interested

23. To the best of your knowledge, what technology tools do other instructors use in their classrooms?

24. What do you consider to be a positive or a negative aspect in terms of taking more advantage of technology in language teaching and learning?

25. If there were a technology training for TAs what topics would you like to see included in the training plan?