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A Case Study: The Attitudes of a Teaching Assistant of French Toward Instructional Technology

Farida Emelia Ngandu Tshiebue

Louisiana State University and Agricultural and Mechanical College, fngand1@lsu.edu

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A CASE STUDY: THE ATTITUDES OF A TEACHING ASSISTANT OF FRENCH
TOWARD INSTRUCTIONAL TECHNOLOGY

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The School of Education

by
Farida Emelia Ngandu Tshiebue
B.A., Louisiana State University, 2011
M.A., University of New Orleans, 2013
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I dedicate this dissertation to my beloved husband, Joseph Longo. Thank you for your support, wisdom, and encouragement during this journey. Thank you to my father who taught me the value of education and always supports me in following my dreams through any obstacles that arise. I also dedicate this to my mother who is never short of compassionate love, understanding, and encouragement. I am eternally grateful for the support you have provided.

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ABSTRACT

Technology has shaped the personal experiences of Teaching Assistants (TAs) of French at the collegiate level in the United States (US), what they feel about the technology tools that are accessible in their work environment, and how they use these tools in their practice of teaching. Yet, there is limited research on the specific topic of the attitudes of TAs of French toward the instructional technologies that are available to them. This study sought to investigate the attitudes of a singular TA of French at a southern US university toward instructional technology (IT) by exploring the dynamics of IT use in the French courses that she taught during two consecutive semesters. Using an intrinsic case study design, the researcher considered how a TAs' attitude toward IT affects the teaching and learning of the French language in college classrooms. Data was collected from interviews, direct observations, and documentation. A theoretical framework integrating Davis' (1986) Technology acceptance model (TAM) explains the key factors, concepts, and variables that were studied and the presumed relationships among them. The three overarching themes that emerged from this investigation were (a) pedagogical goals, access, and digital readiness influenced the participant's decision about how and when IT would be used, (b) the participant felt an intellectual and emotional attitude focused on student learning and making the TA's job easier, and (c) Actual System Use was frequent and targeted toward pedagogical objectives in the French courses. Knowing the attitudes of a TA of French toward IT and exploring her use of IT helped determine the opinions and skills that shape TAs' professional careers because the TAs of French of today represent the French language faculty members of tomorrow (Paradise & Bergstrom, 2005).

CHAPTER 1: INTRODUCTION

Introduction

The contemporary college generation in the United States (US), students who are currently pursuing an undergraduate degree, grew up surrounded by digital technologies. The actual college generation is composed of members of the iGen generation (also known as Gen Z or Centennials, they were born in 1996 and later) and members of the Millennial generation (also known as Gen Y, they were born 1977 to 1995) (Office of Educational Technology, 2017; The Center for Generational Kinetics, 2016). From their childhood, up to adulthood, digital devices have been a pertinent part of their everyday lives outside of school. Thanks to the Internet, college students may now access an almost-infinite amount of information, content, and resources, whether it is for educational or leisure purposes. Because new technologies play an important role in students' everyday lives, trying to exploit this phenomenon is ideal in order to optimize learning in second-language acquisition (SLA) courses, whether inside or outside of the physical classroom. Contrary to the preceding college generations who relied on traditional paper-based resources, 21st-century students tend to rely on digital resources. 21st-century students do not learn with the same tools as before; therefore, instructors must adapt their methods accordingly. One thing to keep in mind throughout this process of exploiting digital technologies is that it is essential to know whether the new technologies actually contain the power to improve education. That is why digital pedagogy is a crucial part of the field of second-language education:

Digital Pedagogy is precisely not about using digital technologies for teaching and, rather, about approaching those tools from a critical pedagogical perspective. So, it is as much about using digital tools thoughtfully as it is about deciding when not to use digital tools, and about paying attention to the impact of digital tools on learning. (Digital Pedagogy Lab, 2016, para. 2)

Digital technologies have had a direct impact at various degrees on how instructors teach and how students learn. With the rise of instructional technologies, the way that we communicate has changed, the audience has expanded, the way in which content is delivered and received has shifted differently, and massive libraries have been condensed into the size of a microchip. The significant issue in this study is the implications of access to technology as both teaching and learning tools. The background of the problem describes the technology tools that are accessible to Teaching Assistants (TAs) of French and their students, using examples from institutions similar to the southern US public university where the study was conducted. The purpose of this study is to investigate the attitudes of a singular TA of French at a southern US public university toward instructional technology (IT) by exploring the dynamics of IT use in the courses that she teaches.

Implications of Access to Technology as a Teaching Tool for University Educators

Before locating access to technology as a teaching tool, educators must become aware of and knowledgeable about what devices and resources are out there and how devices and resources can help them. When considering educators' access to and use of technology, two concepts, developed in the next two sub-sections, must be considered: educators' access to and use of the digital devices and educators' access to professional development in digital readiness.

Educators' Access to and Use of Teaching Tools

Faculty's access to digital devices depends on their campus resources, their departmental resources, and very often their personal capacity: "Faculty who are more open to technology are the ones who more often encourage or require the use of mobile technology in class" (ECAR, 2015, p. 9). According to ECAR (2015), the three top factors that motivate faculty to integrate technology into their teaching are: 1) a clear evidence that students would benefit, 2) saving time

to design or redesign courses, and 3) confidence that the technology would work the way it is planned (p. 25).

The EDUCAUSE Core Data Services produced an “almanac...in 2014 for all nonspecialized institutions in the United States (those that fall into the basic Carnegie Classifications of associate’s, bachelor’s, master’s, and doctoral institutions)” (ECAR, 2015, p. 5). This almanac is an annual overview of IT support for educational technology services in higher education. The almanac reported the specific technology services that these institutions provide to support technology-enhanced teaching and learning: lab/cluster workstations, kiosk workstations, laptops and tablets available for loan, classroom technology equipment, technology-enhanced spaces, and more services targeted specifically for faculty or students. These services are funded by the central information technology entities of these institutions (ECAR, 2015).

The almanac is based on several studies conducted by EDUCAUSE researchers, including Brooks’ *Study of Faculty and Information Technology, 2015* (EDUCAUSE Library, 2015). In this study, the researcher collected responses from 13,276 faculty respondents from 139 institutions across 12 countries about their technology experiences (EDUCAUSE Library, 2015). Selected findings of the study include the following:

- Faculty own a variety of technologies, possess generally positive dispositions and attitudes toward technology, and use it extensively.
- Faculty have considerable experience teaching with technology, especially using digital learning environments.
- Faculty claim that they would adopt technology more if they had evidence of its impact on student learning.

- Faculty are motivated by the prospect of having release time to design or redesign their courses.
- Most faculty think that mobile technology can enhance student learning.

The following table shows the reasons why faculty would or do use technology in their classrooms (ECAR, 2015).

Table 1. Relative Importance of Factors That Motivate Faculty to Integrate Technology into Teaching and Curriculum

Clear indication/evidence that students would benefit	Most important	
Release time to design/redesign my courses		
Confidence that the technology would work the way I planned		
A better understanding of the types of technologies that are relevant to teaching and learning		
Direct assistance from IT staff to support the technology I choose to implement		
Direct assistance from an instructional design expert to design/redesign my courses		
More/better technology-oriented professional development opportunities		
Working in a faculty cohort or community that is adopting the same types of practices		
A monetary or other value-oriented incentive		
A teaching assistant to assist with technology implementation		
Increased student expectations of technology integration		Least important
Tenure decisions and other professional advancement considerations		
Support/encouragement from peers		

Note. Adapted from “Educational Technology and Faculty Development in Higher Education,” by ECAR (2015).

The EDUCAUSE almanac determines that most US universities are technology-equipped. Of course, specific financial circumstances affect the quantity and quality of each university's equipment. The University of Washington's Center for Teaching and Learning (2016) suggests six categories of technology tools that can assist faculty in their teaching:

1. Online collaboration tools, such as those offered by Google Apps, allow instructors and students to share and edit documents online in real time, as well as project them on a screen, giving students a collaborative platform on which to brainstorm ideas and document their work using text and images.
2. Presentation software, such as PowerPoint, enable instructors to embed images, charts, videos, and audio files to enhance their lecture content.
3. Tablets are conveniently mobile and can be linked to computers and projectors, and can help share and save information via cloud computing.
4. Course management tools, such as Moodle, allow instructors to organize all the resources students need for a class.
5. Clickers and smartphones are a quick and easy way to survey students during class to assess students' understanding and help instructors adjust pace and content.
6. Finally, lecture-capture tools, such as Panopto, allow instructors to record lectures directly from their computers and upload them for students to re-watch (University of Washington, 2016).

Kelly & Schaffhauser's (2016) survey on teaching with technology supports the list of technology tools listed above. The survey found that traditional laptops and desktops are both used in 82 percent of higher education learning environments across the country—making them the most common form of IT in the classroom. The survey polled 524 faculty members of higher

education institutions across the country about their use of technology for teaching and learning. In the following graph, the researchers organized by rank the hardware that educators use in higher education learning environments.

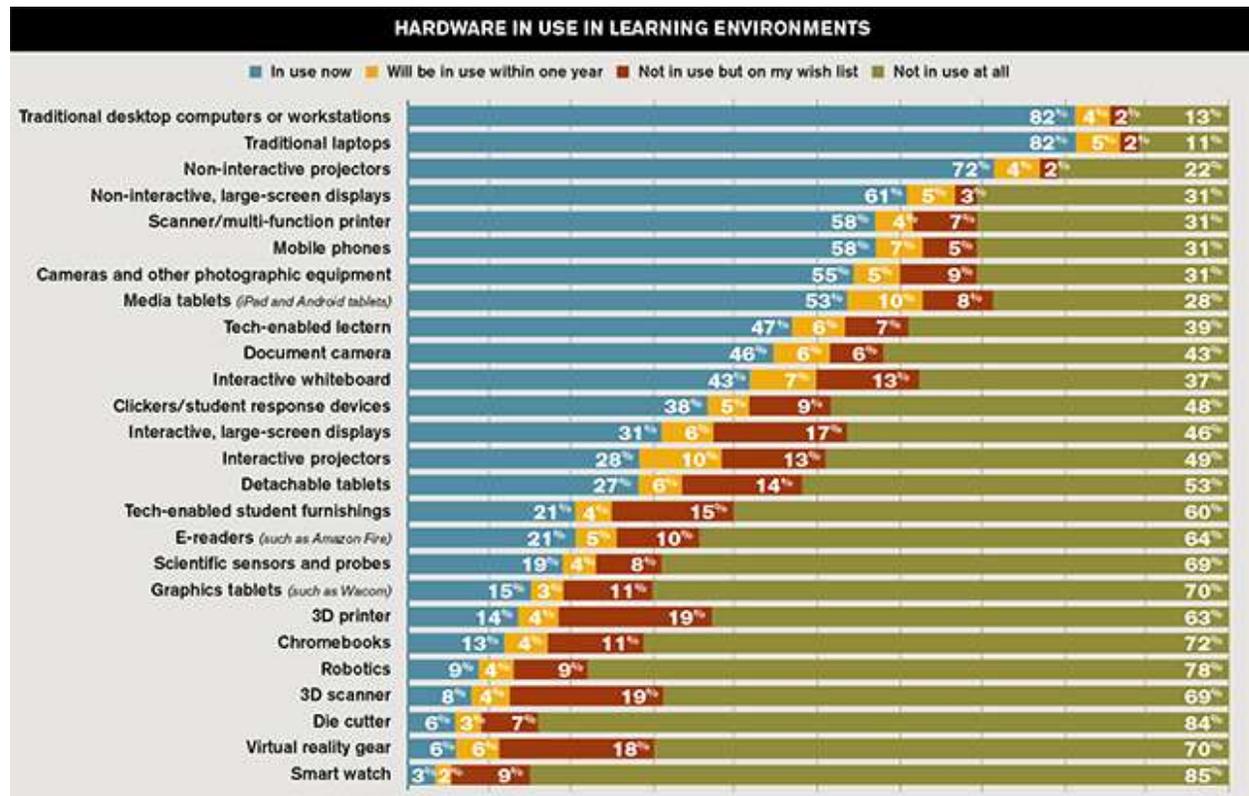


Figure 1. Hardware in Use in Higher Education Learning Environments by Rank. Adapted from “Laptops, Desktops Most Common Form of Instructional Tech in the Classroom,” by Kelly, R. & Schaffhauser, D. (2016).

The digital devices listed on the graph are nowadays becoming more accessible to any person in terms of location and price for educators all over the US. Off-campus, instructors may purchase digital devices in any electronics shop, hardware store, even grocery store, and digital devices are easily purchased online. According to ECAR (2015), US universities give access to computer labs and circulation libraries where instructors may borrow various hardware the university has available. In addition, several STEM departments (related to science, technology, engineering, and mathematics) apply their research by creating digital devices that may enhance

instruction in all types of disciplines on their campuses. The degree of the quality and quantity of these items varies per each university's resources. Louisiana State University (LSU) is a specific example of an institution where technology is accessible to educators of all disciplines. Many services at LSU encourage and support the use of digital technology among the campus community. Since these services are so numerous, I will describe four services, in the next subsections, that specifically apply to the issue of educators' access to digital tools that support teaching of French as a second language:

- office equipment and computer labs,
- the LSU Libraries,
- Communication across the Curriculum (CXC),
- and the Foreign Language Lab.

Office Equipment and Computer Labs. Informational technology services (ITS) provide the LSU faculty with access to current and readily available computers, printers, scanners, and fax machines within their respective departments. Departmental office computers are all equipped with Internet access, email capabilities, and a variety of software packages. French TAs are likely to share computers among colleagues. TAs also have the option of using either of the two ITS computer labs at different locations on-campus. These labs run over 350 Windows and Mac computers set up with similar software available in their offices. Printers and scanners are also available for use in the labs by spending TigerCASH. A variety of software is also available to faculty for downloading on their own devices for no or reduced cost via Tigerware, which is a system that provides an array of software compatible with Windows, Mac, and Linux operating systems (Information Technology Services, 2016a).

LSU Libraries. Faculty may borrow library materials from Middleton Library upon presentation of a valid university identification. Audiovisual equipment is available for faculty to borrow up to seven days at a time. The LSU Libraries also lend mobile computing devices through Gear2Geaux, however, only to LSU students. This means that graduate students who teach a French course have access to these devices. The available gear includes Apple MacBooks, Lenovo laptops, Sony mini DV digital camcorders, mini display ports to VGA adapters, power cords, and phone chargers for iPhone and Android. The LSU Student Technology Fee funds the purchase of mobile computing devices available for check-out at the Middleton Library access services desk (LSU Libraries, 2016).

Communication across the Curriculum (CXC). Known as “the first program of its kind in the nation” (Communication Across the Curriculum, 2016), CXC works with LSU faculty to advance the written, spoken, visual, and technological communication skills of all LSU undergraduate students and deepen their learning of course content. CXC offers five studio resources equipped with advanced technology and mentors to assist users. A presentation room is available to rehearse and record practice presentations in an enclosed private space. A recording sound booth is also available, which allows for sound recording purposes including video voice-over narration and audio podcasts. In addition, a digital documentation studio, a 3D scanner studio, and a 3D printing studio are all accessible so that users can create 3D models using marketbot printers with several color filaments for project and presentations.

Foreign Language Laboratory. The five-room facility provides faculty and students with multi-media tools to enhance their language learning and language teaching experience. There are three main computer labs with a total of 85 computers for classroom or individual use, a newly renovated film screening room with 7.1 Dolby Digital surround sound, and a seminar

room, ideally designed for smaller classroom discussion. The computer labs are equipped with headsets, microphones, and webcams. Each computer has Microsoft Office installed, as well as the Audacity software program for easy-to-create voice recordings. The Foreign Language Lab also offers students the Transparent Language learning program, which is an interactive software tool to enhance their listening, speaking, and vocabulary skills in Arabic, Chinese, French, German, and Italian. These facilities can be reserved for classes, individual use, language clubs, lectures, and presentations. There are additional items that may be borrowed by faculty and students:

- nearly 4000 foreign language films in DVD and VHS format,
- film screening / conference room with high definition Epson projector, 65-inch projection screen, and theater quality 7-speaker Dolby surround sound system,
- DVD and online on demand production services provided for special events, and club meetings,
- six video camcorders: three Sony and three Cannon, each with carrying case and mini-DV tapes,
- nine portable CD-players by Audio Logic, Panasonic, and RCA, and
- seven digital voice recorders: Sony and Olympus, each with carrying cases and USB cable for uploading files (Foreign Language Lab, 2016).

The four services previously described—which are just a snippet of the technology resources LSU has to offer—prove that LSU is a great example of open access to digital devices, system software, and application software for faculty. Whether it is free or for a price, no one can deny that technology is available and is accessible to all faculty. It takes knowing one's campus and knowing what is available on it to take advantage of these tools and resources. It also takes

initiative from university officials and departments to decide which technologies are worth making available for faculty to have the technologies that they need to support their teaching.

Finally, it is important for faculty to know what specific tools they need before acquiring them. Advertisement, modeling, and sometimes trial-and-error are some of the ways faculty can figure out whether they need a certain tool or whether they want to use it just because it is innovative. Peer-reviewed and refereed academic journals and their perspective organizations are the ideal source to turn to before using any kind of instructional digital device. The following are a few of the many journals related to SLA and digital pedagogy: *Journal of Technology Research (JTR)*, *Language Learning & Technology (LLT)*, *Journal of Foreign Language Education and Technology (JFLET)*, *Foreign Language Annals*, the *CALICO* journal, and the *Language Learning Journal*. These journals offer articles published by current educators and researchers who share their theories on IT and report their research and practices with it. Reading the research, along with discussions and idea exchanges with colleagues, is a form of professional development in digital readiness, a topic discussed in the next section, and a means for success in mastering digital pedagogy.

Educators' Access to Professional Development for Digital Readiness

Once educators have access to digital devices, it is crucial for them to know how to use them and maximize their potential. Digital readiness requires the fusion of digital skills and trust. In this context, digital skills are the skills necessary to initiate an online session, surf the Internet, and share content online. Trust is people's beliefs about their capacity to determine the trustworthiness of information online and safeguard personal information. Digital readiness is manifested during the actual use of the digital space—that is, the degree to which people use digital tools while carrying out online tasks. Many researchers have begun to reconsider the

concepts of *digital native* and *digital immigrant*, two terms coined by Prensky (2001), writer and educational futurist. According to Prensky (2001), in the sphere of education, digital natives are students who are native speakers of the digital language of computers, video games and the Internet (p. 1). Prensky (2001) describes digital immigrants as people who were not born into the modern digital world but have, at some later point in their lives, become fascinated by and adopted many or most aspects of the new technologies (p. 1). Seeing today's students as digital natives may be a mistake, leaving educators to assume that millennial students automatically know more about technology than they do simply because they were born into a digital generation. Although it is true that most millennial young adults are familiar with the digital space, college students do not necessarily possess the digital literacy skills to use technology effectively in a learning environment (Office of Education Technology, 2016). That is where educators come in: They are the designated people to develop true digital natives by teaching digital literacy skills through integrating technology into their curriculum. It is therefore crucial that educators develop the skills they need to ensure that today's students develop the skills they need. Hence, the second step of educators' access to IT is professional development.

Digital readiness requires the overcoming of a very common barrier among educators: The lack of education and training necessary to leverage the power of technological tools fully to improve teaching and learning (Carlson, 2002). The US Office of Educational Technology (OET) (2016) claims that it is the responsibility of teacher preparation institutions, state offices of education, and school districts to ensure the transition to technology-enabled preparation and professional development. In the National Education Technology Plan for 2020 titled *Future Ready Learning: Reimagining the Role of Technology in Education* (Office of Educational Technology, 2016), the OET foresees that this transition will entail rethinking instructional

approaches and techniques, tools, and the skills and expertise of educators who teach in these programs. It claims that this rethinking should be based on a deep understanding of the roles and practices of educators in technology-supported learning environments.

Institutional programs responsible for pre-service teacher education and in-service professional development for educators should focus explicitly on ensuring all educators are capable of selecting, evaluating, and using appropriate technologies and resources to create experiences that advance student engagement and learning (Office of Educational Technology, 2016). These institutional programs should also pay special care to make certain that educators understand the privacy and security concerns associated with technology. This goal cannot be achieved without incorporating technology-based learning into the programs themselves (Office of Educational Technology, 2016, p. 25).

Professional development in digital readiness is accessible in most US universities, either via human resource (HR) professional development services, IT services, training by a specific department, or workshops hosted by professional organizations. Online training seems to be the most popular. One example is Michigan State University (MSU) which claims a change in direction for its IT Training:

transitioning from traditional classroom delivery of content to web-based delivery methods over the past couple of years. This has been possible, in large part, by partnerships the university has formed with third party vendors. (MSU IT Training, 2016)

Professional development services offer classes and programs that enhance professional skills and competencies. The next subsections describe five of these services: training courses, workshops, instructional design, instructors' resource courses and tool guides, and help desks. The purpose of these services is to provide faculty with technical assistance and support. They

usually offer in-person, by-phone, and online support to faculty, both novice and advanced, in digital readiness.

Training Courses. Training partners such as New Horizon and SkillSoft are third-party vendors that are growing in business by providing a wide range of technical training, desktop applications, and programming language courses for university employees and departments via courses. These courses can run several weeks. Some courses require a fee from the learner, whereas some courses are free of charge. Eliquo, a training service offered at MSU, is subsidized in part by the university, advantaging the learner with a discounted price. E-learning tools, such as elevateU at MSU can be accessed from the convenience of the faculty's computer at no charge.

Workshops. Workshops are in-person or online training sessions hosted by professionals who explain and demonstrate during a specific amount of time certain activities, such as basic navigation skills, setting up a grade book, and using open-source platforms. Workshops are usually offered throughout the academic year by campus organizations and departments. Online live sessions are led by a live online instructor and offer dual monitors for viewing the course materials and virtual system. Instructors who are members of professional organizations have access to workshops as well. According to Instructional Technologies Support (2016) at Texas State University, popular workshop topics related to digital readiness include:

- managing an online course,
- introduction to a certain learning platform,
- using online discussions effectively,
- hybrid course teaching experiences, and
- online collaboration (supporting student teamwork).

Instructional Design. Instructional design is a service that helps faculty design, develop, and teach effective face-to-face, hybrid, and online courses that provide relevant learning experiences to motivate and engage students. Courses offered within this service usually compel the learner to design a course that will be taught. Instructional Technologies Support (2016) at Texas State University provides this service by:

- evaluating courses and teaching practices to ensure they meet quality standards and incorporate best practices in teaching and learning,
- applying current research on learning and innovative teaching practices that support student-centered learning,
- engaging in ongoing evidence-based improvement of methods and materials, and
- providing guidance on the use of technology to meeting instructional goals.

Instructional Technologies Support (2016) at Texas State University asserts that a “spirit of collaboration, service, and outreach, while advocating for university policies” (Instructional Design, para. 1) is necessary in order to provide this service to faculty.

Instructors’ Resource Courses and Resource Tool Guides. Instructors’ resource courses and resource tool guides are usually found within open-source learning platforms such as Moodle. There are repositories for helpful guides, information, videos, links, and more, which allow faculty to learn how to use the platforms more effectively.

Help Desks. Help desks are very useful to faculty in times of struggle when problems with technology arise. These centers are accessible via phone, email, live chat, or one-on-one to assist with learning management systems such as Moodle, Blackboard, or Academica. Help desks often offer computer and mobile device diagnostics and repairs, Wi-Fi setup, as well as free and discounted software. Some help desks even have technology accessories available for

loan or purchase (e.g. ethernet cords, flash drives, charging cables). It is true that faculty are often faced with frustration regarding how long it takes a help desk to fix an urgent issue.

However, it is important to know that these services are provided for their success.

Summary

To facilitate faculty access to technology as a teaching tool, most US universities have “plugged” into the digital world. University officials have figured out the needs of their faculty in order to provide proper digital equipment, digital readiness, and technical support. US universities have made a great effort to encourage their faculty to utilize IT in their respective fields by offering IT services in various forms. However, it sometimes takes awareness and/or motivation for faculty to go out of their way to explore what is available to them. For those who are dedicated to digital pedagogy, there are rewards, such as the Award for Excellence in Online Teaching, which is an annual competition sponsored by Texas State's Office of Distance and Extended Learning (ODEL).

IT has a largely positive impact on university campuses considering how accessible it has become. One of the biggest challenges to incorporating IT is the cost, “a factor that close to 70% of university respondents cite as their greatest concern” (Economist Intelligence Unit, 2008, p. 14) in a report from the Economist Intelligence Unit sponsored by the New Media Consortium. This report claims that many institutions struggle with rising information technology costs, the need to avoid technological obsolescence in conjunction with insufficient resources, and a lack of adequate instructional design staff (Economist Intelligence Unit, 2008). All of these factors hinder the adoption of new technologies for these institutions. Mitchell (2011), a scholar from Western Virginia University, encourages educators who work in universities where “there is little to no budget available for instructional technology” (p. 50) to seek alternative solutions to

acquire technology. Her suggestions include instructors making use of free Web 2.0 applications; colleges working with other institutions to share the cost of technology purchases, maintenance, and support; and administrators and faculty investigating grant opportunities that provide money for training and support in addition to purchasing equipment (Mitchell, 2011). The lack of technological resources in universities is a reality that needs to be addressed. Educators who work on campuses with limited financial means are on the less privileged side of the digital divide, a theme further explored among college students in the next section.

Implications of Access to Technology as a Learning Tool for College Students

The *Chronicle of Higher Education* published the 2011 convocation address for new students at Flagler, a four-year college in Florida, wherein Richard D. Kahlenberg (2011), convocation speaker, stated that the first purpose of higher education is “to ensure that every student, no matter the wealth of her parents, has a chance to enjoy the American Dream” (para. 3). Kahlenberg (2011) asserted in his speech that the most reliable avenue to economic security involves getting a four-year degree and added that American higher education is not doing a very good job of promoting social mobility. Using recent data comparing high-income families and low-income families, Kahlenberg (2011) described a society “marked by profound inequality” (para. 5). The digital divide is an existing form of inequality among college students and must be addressed when discussing access to IT. The next subsections explain how societal and geographical facets of digital divide affect students’ learning, how digital divide morphed into digital use divide, and then describe college students’ access to digital learning tools with specific examples.

Digital Divide among College Students

Recently published data from the Pew Research Center (2011) on technology use among college students indicate that at least 98 percent of undergraduate students are Internet users (p. 1). The remaining 2 percent of this group not using the Internet may be small, but it is not insignificant. A 2015 survey from the Pew Research Center (2016) found key reasons that respondents (a group made of students and non-students) do not use the Internet. Some of these respondents had no interest in doing so or did not think the Internet was relevant to their lives. Other respondents in that same group said the Internet was too difficult to use, and many mentioned that cost was a barrier – the expense of Internet service or owning a computer. As far as college students, it may be possible that particular students choose not to be Internet users, but it is more likely that it may be an access issue.

For college students, the ability to access computers and the Internet has become increasingly important to immerse themselves completely in the economic, political, and social aspects of not just the US, but of the world. Students are facing a future that increasingly requires deeper learning and valued earned credentials, along with significant work experience and civic engagement to help them live well and actively participate in today's digital democracy (Milliron, 2016). However, not every US college student has access to the technology needed to take on this future. Although research on IT shows that US university campuses are well-equipped, research on the issue of access to IT confirms that there is a digital divide that affects students' learning outside of campus facilities. When discussing the digital divide among students, it is about the capacity of a student to buy a computer and new technological equipment for the home, the facility to access the Internet, the ability to understand its complicated

programs, and the skillfulness of interpreting data and asking the suitable questions. Marchick et al. (2000) define digital divide:

The idea of the “digital divide” refers to the growing gap between the underprivileged members of society, especially the poor, rural, elderly, and handicapped portion of the population who do not have access to computers or the internet; and the wealthy, middle-class, and young Americans living in urban and suburban areas who have access. (Marchick et al., 2000, para. 3)

I give two pieces of evidence of digital divide in the US. Firstly, the White House Council of Economic Advisers issue brief *Mapping the Digital Divide* (2015) discusses the fact that many communities throughout the US still lack adequate technological equipment *and* knowledge. Although the issue brief concerns a broader category of people, its content regarding the unevenly distributed access to technology is relevant to the study.

Today, nearly every American can access the Internet, and the United States leads the world in the availability of advanced wireless broadband Internet services, such as 4G LTE. The benefits of this technological revolution, however, have not been evenly distributed. Millions of Americans still do not regularly use a computer, and research shows that there remain substantial disparities in both Internet use and the quality of access. This ‘digital divide’ is concentrated among older, less educated, and less affluent populations, as well as in rural parts of the country that tend to have fewer choices and slower connections. (Council of Economic Advisers (US), 2015, p. 1)

The issue brief presents a US map that indicates home Internet adoption by county population, shown in Figure 2. This map illustrates the digital divide between urban and rural locations. There are large areas of dark green (representing more than 74.3% of Internet adoption) in the Northeast corridor from Boston to Washington, around Chicago and its suburbs, and along the California coast from San Diego to the San Francisco Bay. The rural South, and those portions of the Southwest all host large numbers of counties that exhibit the lowest Internet adoption rates (areas of red representing up to 60.7%) nationwide. This map also reveals several rural areas that have relatively high rates of Internet adoption, such as the Northern Great Plains and several counties in Montana, Wyoming, North Dakota, Colorado and Utah.

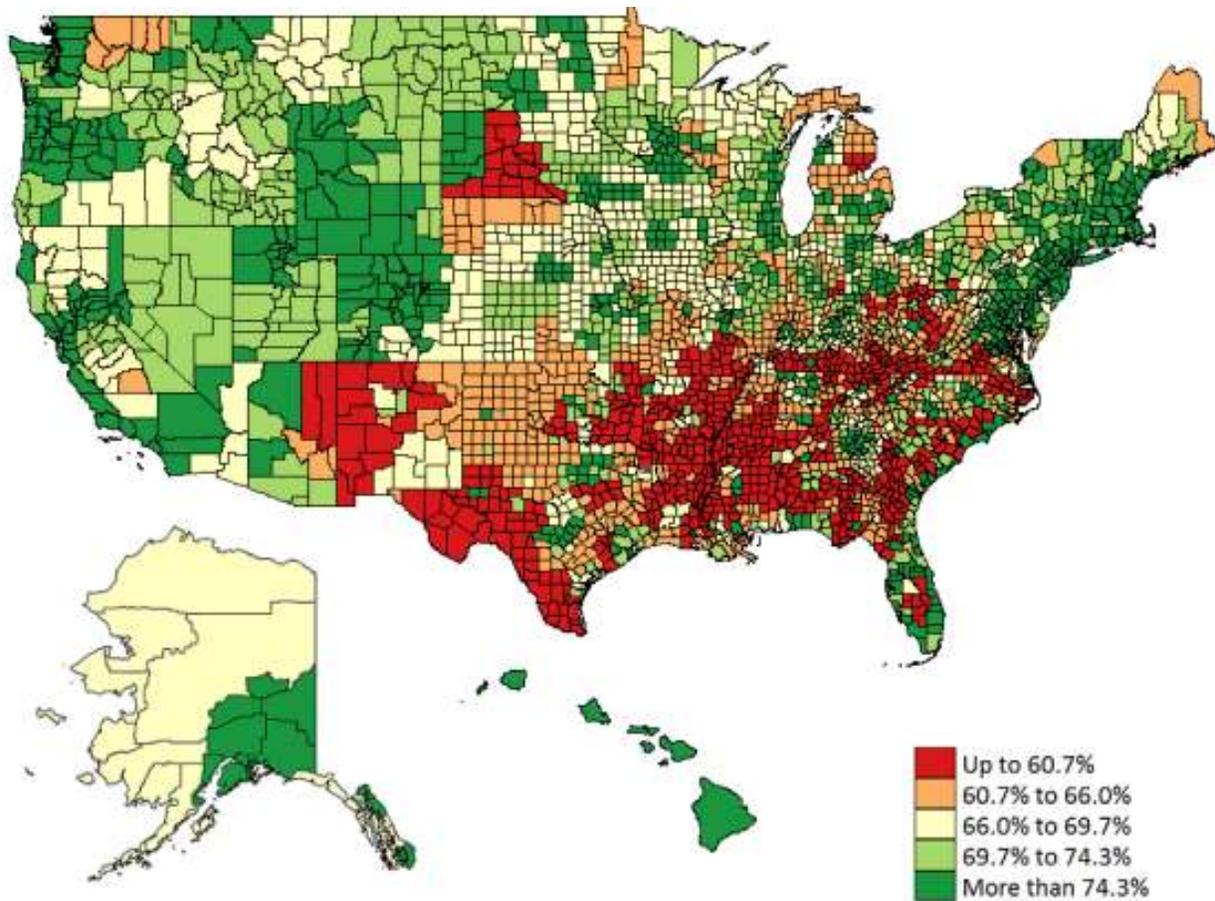


Figure 2. Internet Adoption in US by County: 2013. Adapted from “Mapping the Digital Divide,” by the Council of Economic Advisers (US). (2015).

A second example of digital divide in the US is the World Economic Forum’s Networked Readiness Index (NRI). The NRI, also referred to as technology readiness, is a key indicator of how countries are doing in the digital world. The NRI annually measures how well an economy is using information and communications technologies to boost competitiveness and well-being. Note on Table 2 that the US ranked seventh for 2014 and 2015, moving up to rank number five in 2016. Networked readiness shows how prepared each country is to reap the benefits from “a new set of systems, bringing together digital, biological and physical technologies in new and powerful combinations” (Breen, 2016, para. 3). I have combined NRI tables of 2014, 2015, and 2016 to show that the US has moved upward in the rank.

Table 2. Networked Readiness Index

Country	Rank 2014	Rank 2015	Rank 2016
Singapore	2	1	1
Finland	1	2	2
Sweden	3	3	3
Norway	5	5	4
United States	7	7	5
Netherlands	4	4	6
Switzerland	6	6	7
United Kingdom	9	8	8
Luxembourg	11	9	9
Japan	16	10	10

Note. 2014, 2015, and 2016 network readiness rank out of 139 economies. Adapted from “The Global Information Technology Report,” by World Economic Forum & INSEAD (2016).

When access to technology is uneven among groups, the digital divide in education is widened, denying access to lower-income students and undermining the positive aspects of learning with technology. *The National Education Technology Plan* (Office of Educational Technology, 2016) asserts that equal technology access for all students “increases the likelihood that learners have personalized learning experiences, choice in tools and activities, and access to adaptive assessments that identify their individual abilities, needs, and interests” (p. 30). The plan for the year 2020 claims that “all students deserve equal access to the Internet, high-quality content, and devices when they need them; [as well as] educators skilled at teaching in a technology-enabled learning environment” (Office of Educational Technology, 2016, p. 30).

Planning this vision supports that the digital divide exists indeed and that state and federal governments, foundations, and associations must continue bridging the gap.

Digital Use Divide among College Students

Since the term digital divide was first introduced in the 1990s (US Department of Education, 1996; US Office of the Press Secretary, 1996), it has been statistically found that issues of access to technology are leveling out among ethnic groups. For example, a 2010 Pew Research Center study titled *Technology Trends Among People of Color* (2010) found that laptop ownership among African Americans, Latinos, and Whites is equal. Today, the divide is not eliminated, but transformed, referring more specifically to Internet access. This aspect shed light on the term *new digital divide*, which is also the title of Crawford's (2011) *New York Times* opinion article in which she explains her beliefs:

We are a country in which only the urban and suburban well-off have truly high-speed Internet access, while the rest—the poor and the working class—either cannot afford access or use restricted wireless access as their only connection to the Internet. (Crawford, 2011, p. SR1)

The OET refers to the term *new digital divide* as the term *digital use divide*. This emerging phenomenon separates students who use technology tools in ways that supports their learning from those who merely use technology tools to complete tasks with an electronic device (e.g., digital worksheets, online multiple-choice tests) (Office of Education Technology, 2016, p. 5). Freshmen students who come from underprivileged high schools where quality Internet access was not an option must be considered. For many students who are new to the online classroom environment, having Internet access does not guarantee that they will know how to use it. Internet access must be provided along with the fostering of awareness in the proper usage of digital tools. College educators must be prepared to receive such students and help them to

develop technological proficiency in communication and other skills necessary for their college education.

College Students' Access to Digital Learning Tools

Many US universities and colleges are doing their part in bridging the gap by offering access to technological learning tools to their students on and off campus. Most of these tools are available to students as soon as they register, via a student identification that gives them access to a student account, an email address, and Wi-Fi. The ITS provide useful assistance that come in handy for both the academic and leisure sides of student life. These services are funded by charging students with a technology fee defined in the following subsection. On-campus and off-campus technology available to college students is further described.

Technology Fee. The various services that promote student access to technology are funded by a *technology fee*, which is defined by Salem College (2016) in North Carolina as:

a nominal charge in addition to tuition costs that will be used for technology enhancement. It is charged to all students who attend the college. The funds gathered from this fee are strictly dedicated to technology improvements which will enhance the learning experiences of our students. For example, PC upgrades in classrooms and the addition of smart/multimedia technology in classrooms. (para. 2-3)

It is the university's Board of Governors or Board of Trustees that authorizes and establishes the technology fee assessed from tuition each semester and strategically divides funds among university colleges, central IT organizations, and IT projects. The university's Board of Trustees must make decisions per the statutes, constitutions, and laws of its respective state. For example, Florida Statutes Section 1009.24 (13) (State University Student Fees, 2012) states "Each university board of trustees may establish a technology fee of up to 5 percent of the tuition per credit hour. The revenue from this fee shall be used to enhance instructional technology resources for students and faculty." At Florida State University, "to date, the Student Tech Fee

has distributed \$30.4 million, including \$21.4 million to university colleges and central IT organizations, and \$9 million to fully or partially fund 231 approved instructional technology proposals” (Florida State University, 2016). Students pay a great amount of money for their technology fees, and it is therefore their right to benefit from this mandatory investment. Examples of technology tuition fee usage include but are not limited to the list of services composed by the Pennsylvania State System of Higher Education (2011, p. 9):

- smart classrooms, including renovations to support technology-intensive learning,
- computer labs,
- learning content and content management software,
- electronic media and library databases,
- distance learning hardware/software,
- staff for training, technical assistance and technology maintenance,
- training and professional development to create skills and materials integrating technology into the classroom,
- faculty technology needs to support student learning and communication,
- access to broadband and telecommunication services,
- online student academic support services, and
- security solutions to protect student and institutional data.

On-Campus and Off-Campus Technology Available to College Students. The most essential ITS are made available by most US campuses and are accessible on and off campus and on most digital devices. Although they are funded through the technology fee, they are considered “free” in the sense that there is no charge upon the direct use of them. Some of the most popular ITS for students include software download, cloud storage, mobile applications

(apps), learning management systems (LMS), and virtual labs. These five ITS are described using specific examples in the next subsections.

Software Download. The University of Alabama offers several software programs for download at no cost for students. Its software catalogue is accessible on the university website and contains information on each program, including the software agreement's terms and conditions or restrictions such as the number of devices on which software can be downloaded. The software is compatible with either Microsoft or Apple platforms. The software catalogue offers popular items such as Microsoft Office, MacAfee virus protection, and End Notes (The University of Alabama, 2016b). Once downloaded, the software can be used anywhere. This is especially convenient for students who commute to school.

Cloud Storage. Cloud storage is becoming more popular as an alternative to USB drives. For instance, the University of Mississippi (2016) provides each of its students with a Box account (a secure file sharing, storage, and collaboration tool) the size of 15 GB to store, share, and access their files online.

Mobile Applications. Apps offer convenient access to the latest campus news and events as well as real-time bus tracking, maps, and dining locations and hours. As an example of this, students at Florida State University can download the myFSU mobile app directly on Apple and Android devices; for any device with Web access, they can open a browser and visit the mobile website: www.my.fsu.edu. The myFSU app is customized to each student, offering a personalized access to university systems and important day-to-day tasks right from the app (Florida State University, 2016).

Learning Management Systems. Developed on pedagogical principles, LMS are teacher-student interface systems that are used for blended learning, distance education, and flipped

classroom. The emerging LMS feature open, social, personal, flexible, and mobile characteristics. The central LMS used by Georgia State University is named iCollege and contains education applications such as Panopto, Kaltura, and TurnItIn (Georgia State University, 2016). In the higher education market, Blackboard is the leading provider as of fall 2013 with 41 percent market share, with Moodle (23 percent), Desire2Learn (11 percent), and Instructure (8 percent) being the next three largest providers (Green, 2013, p. 23).

Virtual Labs. The virtual lab is designed specifically for students to access software from a distance, as long as they have a computer and Wi-Fi. LSU's virtual lab (VLab), for example, is an online service that allows students to log into a virtual computer to access software that is installed in the computer lab. LSU students have access to free virtually hosted computer lab software from anywhere in the world 24 hours a day, 7 days a week (Information Technology Services, 2016).

Summary

Higher education is doing its part to establish equity and access among students. Technology provides a new opportunity for traditionally underserved students to have equitable access to high-quality educational experiences via many ITS. To ensure that all students have the choice and the chance to become well-equipped for their future, I believe that universities must continue “to acquire, install, and maintain the emerging technologies in order to enhance student-learning outcomes; to provide equitable access to technology resources; and to ensure, ultimately, that college graduates are competitive in the technologically sophisticated workplace” (Pennsylvania State System, 2011, pp. 8-9).

Conclusion to the Issue of Access to Technology

Technology has impacted the ways we teach and learn, and it is impossible to deny that interaction between humans and computers will continue to increase as we progress into the 21st century (Marchick, 2000). Due to its increasing development, technology creates constant innovative change while fostering digital divide among educators and learners. The utopia of IT would feature equal access for all. Although the efforts of higher education institutions have been successful, supported by significant progress being made to increase Internet access in schools, libraries, and homes across the country, there is still work to do for the instructors and students for whom both computer and Wi-Fi access is not a reality once off campus. The issue of access to technology for both educators and students is one that TAs of French must consider when they plan to use IT in their work. In consequence, this study sought the attitudes of TAs of French toward the instructional technologies that are available to them and their students.

Statement of the Problem

There is limited research found on the specific topic of the attitudes of TAs of French toward the instructional technologies that are available to them, which is shown in the literature review (Chapter 2). It is imperative, for the field of college-level French education, to find out how technology has shaped the personal experiences of TAs, what TAs feel about the technology tools that are accessible in their work environment, and how TAs use these technology tools in their practice of teaching. Knowing the attitudes of TAs of French toward IT and exploring their use of IT helped determine the opinions and skills that shape their professional careers because “the graduate teaching assistants of today...represent the faculty members of tomorrow” (Paradise & Bergstrom, 2005, p. 1). The paucity of research led me to this timely study within this specific context.

To address this issue and add to the body of limited literature that does exist, I conducted a qualitative case study research, in which I explored the experience of one TA of French. Case study design “allows investigators to focus on a ‘case’ and retain a holistic and real-world perspective” (Yin, 2014, p. 4). This was primarily a descriptive study to make the unfamiliar familiar concerning the attitudes of a specific TA of French toward technology in order to inform professionals in the French education field.

The aim of this single case study was to investigate the experience of one TA of French at a southern US public university where I had been a TA of French for three years. I observed the case study participant during her teaching sessions and interviewed her by asking pertinent questions regarding her attitudes toward IT and the manners in which she used IT in the two courses that she taught during the span of the study. “Opening a dialogue with students about the TA experience, having TAs formally reflect on their experiences, and helping TAs to professionally develop” (Weidert et al., 2012, p. 101) are crucial elements for the training of TAs and the advancement of French studies departments.

Purpose of the Study and Research Questions

The purpose of this study was to investigate the attitudes of a singular TA of French at a southern US public university toward IT by exploring the dynamics of IT use in the courses that she taught. Through my lens of experience also teaching French at this institution, I was able to provide an appropriate context; through the experience of the participant in this study, I intended to render a rich description of practice. The overarching question that frames the study is: How does a TA of French feel about the implementation of IT resources in the courses that she teaches? The study consists of four specific questions:

- 1) What are the personal experiences of a TA of French at a southern US public university with technology prior to, during, and after her assistantship?
- 2) What are the internal beliefs, attitudes, and intentions of a TA of French regarding the importance and implementation of IT?
- 3) What ways does a TA of French implement the IT instruments and resources that are accessible to her in her courses over the period of a semester?
- 4) What are the perceived usefulness (PU) and perceived ease of use (PEU) of these instructional technologies according to a TA of French?

Significance of the Study

This study is significant in that it draws on the fact that the proliferation of technology and social media has changed the way that university educators teach French, how college students learn a second language, and the way educators and students communicate. Knowing the attitudes of TAs of French toward IT helped determine the skills that TAs must acquire and possess during their posts as instructors of French. As 21st-century technology has proven to be a benefit to second-language education, professionals of this field must know which and how new technologies are worth being exploited. A determination whether there is a link between the attitudes of TAs of French and the manner in which they use technology to teach college-level French is critical information to the field of French education.

Definition of Terms

The attitudes of Teaching Assistants of French toward instructional technology is the scope and extent to which graduate teaching assistants who teach college-level French are interested in, are comfortable with, and are active participants in the adoption of instructional technologies in the sphere of French instruction (Paradise & Bergstrom, 2005, p. 1).

The US Department of Labor (2015) defines *Graduate Teaching Assistant* as an employee with the following duties:

Assist faculty or other instructional staff in postsecondary institutions by performing teaching or teaching-related duties, such as teaching lower level courses, developing teaching materials, preparing and giving examinations, and grading examinations or papers. Graduate teaching assistants must be enrolled in a graduate school program. (para. 1)

Graduate Teaching Assistants are simply called Teaching Assistants in this study. The acronym for Graduate Teaching Assistant is GTA. The acronym for Teaching Assistant is TA.

For this study, *Teaching Assistants of French* are graduate students who are employed to give instruction of the French language to undergraduate students, conduct lectures and make presentations in classrooms, lead discussion groups, assist with preparing examinations, grade assignments, tutor students outside of formally scheduled classes, and hold office hours (LSU Graduate School, 2017b, para. 1). Teaching Assistants of French must perform these duties while being enrolled full-time, remaining in good academic standing, and maintaining at least a 3.0 grade-point average (LSU Graduate School, 2017a, para. 2).

The Merriam-Webster dictionary definition of the term *attitude* is “a mental position with regard to a fact or state, or a feeling or emotion toward a fact or state” (Attitude, n.d.). In this study, the term *attitude* is used to mean the intellectual and emotional attitude that TAs feel when using IT in the classes that they teach.

Instructional technology, also called *educational technology*, is defined by the Association for Educational Communications and Technology as “the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources” (Robinson et. al, 2007, p. 15). For the purpose of this research, *instructional technology* is more simply defined as “the physical means via which

instruction is presented to learners” (Reiser & Dempsey, 2012, p. 1). This study focuses on the educational media and tools that are used to “bring about more effective instruction” (Commission on Instructional Technology, 1969, p. 1) by supplying task structuring support, access to information resources, and alternate forms of content knowledge representation. The acronym for instructional technology is IT.

Perceived usefulness is defined as the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context (Davis et. al, 1989). The acronym for perceived usefulness is PU.

Perceived ease of use refers to the degree to which the prospective user expects the target system to be free of effort (Davis et. al, 1989). The acronym for perceived ease of use is PEU.

Assumptions and Limitations

As with any study, it is important to address assumptions as a researcher. Equally important is to consider study limitations.

Assumptions

Owning up to my assumptions provides a perspective for this study. As a researcher, I claim the following assumptions:

1. The participant had a sincere interest in participating in my research and did not have any other motives, such as impressing her departmental supervisor by agreeing to be in my study. This allowed me to “retain a holistic and real-world perspective” (Yin, 2014, p. 4).
2. The inclusion criteria of the sample were appropriate and therefore assured that the participant had experienced the same or similar case of the study:
 - a. The participant was a practicing TA of French in the Department of French Studies at a southern US state university.

- b. The participant had access to digital devices and resources that the university and the Department of French Studies make accessible to TAs.
 - c. The participant had access to the professional development opportunities the university and the Department of French Studies make accessible to TAs.
 - d. The participant used IT, frequently, in the sphere of French instruction.
 - e. The participant had an attitude, investigated in the study, toward IT.
3. The participant answered the interview questions in an honest manner.

Limitations

Acknowledging limitations is also important in qualitative case design. As a researcher, I assert the following limitations:

1. The study was delimited only to a single participant currently teaching a French course in the Department of French Studies at a southern US state university. Because the case study focused on a single participant, results cannot be generalized. However, much can be learned from a particular case. Readers can learn vicariously from an encounter with the case through the researcher's vivid narrative description (Stake, 2005).
2. The study was delimited to population that teaches French as a second language.
3. The study was delimited to TAs and does not include faculty.
4. The study was delimited to the experience level of the researcher.

Conclusion

I have chosen to explore the case of one TA of French to study how this individual engaged with technology while teaching a second language. As part of my study, I observed this participant and interviewed her, asking pertinent questions regarding her attitudes toward IT. The participant benefited from the study because going through personal interviews, engaging in

analytical dialogue, and being observed while teaching using technology helped her understand better her experiences and issues with IT.

Although the findings of this study cannot be generalized due to a single participant, my expectation was that findings would add to the body of research on French education and technology. Moreover, I expected the findings to inform future research about the directions and possibilities to study TAs of French who are going through career-shaping experiences and who typically pursue careers as professors in the field of French language studies.

In Chapter 2, I present a review of literature that encompasses second-language education and IT. Chapter 3 is a detailed description of the research study I conducted. In Chapter 4, I present and discuss findings, and in Chapter 5, I offer implications and recommendations based on the results of this study.

CHAPTER 2: REVIEW OF THE LITERATURE

This review of the literature begins by situating the place and role of IT in SLA in higher education. It then sheds light on modern practices with IT that are most highly recommended by second-language scholars. The review continues by focusing on literature written specifically on TAs teaching a second language and the integration of IT. Finally, two individuals are perceived as significant contributors to the study of TAs of French and the integration of IT.

Introduction to the Literature

The Modern Language Association (MLA) Ad Hoc Committee on Foreign Languages (2007) addressed a report to American university foreign language departments and affiliate departments concerning a transformation that is already but slowly ongoing: building competent multilingual citizens who may contribute to the US' "language crisis" as a consequence of 9/11. The committee called for a unified language and content curriculum across the 4-year college or university sequence that requires collaboration among all teaching corps faculty (tenure-track faculty and instructors at all levels and areas) and collaboration with other related departments. The goal of the committee is to produce foreign language speakers as deep translingual and transcultural experts, and to situate language study within the context of humanistic learning. This can be done by incorporating cultural inquiry at all levels, offering interdisciplinary courses in the target language, ensuring funding for research and study abroad, infusing foreign languages into campus media and activities, encouraging target language speaking in various courses and campus programs, and enforcing language requirements in doctoral programs. In conclusion, the MLA Ad Hoc Committee on Foreign Languages (2007) advertised the MLA as a forum for foreign language professionals to exchange ideas and practices. The MLA affirmed a

commitment to provide research and analysis to further its goals and a willingness to assist those following its recommendations in the report.

The *World-Readiness Standards for Learning Languages* (The National Standards, 2015) suggests five “C” goal areas for learners at all levels, (Communication, Cultures, Connections, Comparisons, and Communities) that “stress the application of learning a language beyond the instructional setting. The goal is to prepare learners to apply the skills and understandings measured by the Standards [and] to bring a global competence to their future careers and experiences” (The National Standards, 2015, p. 2). The Standards include information that reflects the current educational landscape, which encompasses 21st-century skills.

The term *21st century skills* refers to a broad set of knowledge, skills, work habits, and character traits that are believed—by educators, school reformers, college professors, employers, and others—to be critically important to success in today’s world, particularly in collegiate programs and contemporary careers and workplaces. Generally speaking, 21st century skills can be applied in all academic subject areas, and in all educational, career, and civic settings throughout a student’s life. (The Glossary of Education Reform, 2016, emphasis added by author)

According to the Standards, language learners can acquire skills related to information and communication technology (ICT) while learning a second language. This approach aims to help them develop competence to communicate, interact, and participate effectively in multilingual communities. The basic idea is that students, who will come of age in the 21st century, should earn skills that reflect the specific demands that will be placed upon them in a complex, competitive, knowledge-based, information-age, technology-driven economy and society (The Glossary of Education Reform, 2016).

Bell (2005) asked two important questions: 1) What are the salient issues in the research literature in SLA and foreign language learning (FLL) that can be modified or directly applied to effective foreign language teaching (FLT) perspectives in the classroom context? 2) To what

extent do postsecondary foreign language teachers agree on behaviors or attitudes that are believed to contribute to effective FLT and learning? Bell (2005) used a questionnaire research method to collect data from 457 postsecondary teachers. The questionnaire contained eighty items grouped in nine categories relevant to SLA and FLT. All participants were members of the American Council on the Teaching of Foreign Languages (ACTFL). The results most pertinent for the topic of IT were responses to the following item: “The effective foreign language teacher integrates computer-aided instruction (e.g., computer-based exercises, e-mail, the Internet, CD-ROM, etc.) into foreign language teaching” (Bell, 2005, p. 262). Out of all the participants, 83 percent agreed, 12 percent disagreed, and 5 percent were uncertain on this question. In conclusion, the strong positive agreement on eight out of nine categories contributed to the 56 percent of the teaching behaviors and attitudes related to the field of FLT, which is evidence that most the participants agreed on the same things relevant to FLT.

Arnold (2007) investigated how IT is being used for FLL in higher education. By conducting an online survey, Arnold (2007) asked 173 college foreign language teachers at multiple four-year southeastern US institutions how they have used IT in their teaching in the past two semesters. He used the results to determine how far IT has come in the past 10 years and why teachers decide for or against IT. Arnold (2007) found that in 2002, 70 percent of participants in Egbert et al.’s (2002) similar study used at least one computer-supported activity, compared to 99 percent of participants in Arnold’s study, who had used computer technology directly for student learning. Other crucial findings revealed that teachers in private institutions used IT more than teachers in public institutions; the older the teacher, the less IT they employed; the younger the teacher, the longer they had learned using technology themselves (specific example given: TAs vs. Professors); gender had no significance on IT use. The top

three uses of IT by participants were to post materials online, to send students to specific websites, and to have students search the Internet. The reasons participants were motivated to use IT include student convenience, instructional variety, and connection between students and the target culture. The most common reasons participants were reluctant to use IT are preparation, implementation, and evaluation being too time-consuming. Arnold (2007) concluded that most participants used computer technology at a very basic level and were motivated by utilitarian reasons to do so. Pedagogical benefits only formed a set of secondary reasons.

This introduction to the literature indicates that the field of SLA in higher education has given IT a place and a role to operate in. The role of IT in SLA is to support the production of second-language speakers as deep translingual and transcultural experts. Most second-language educators integrate computer-aided instruction, at various extents, to help their students develop competence to communicate, interact, and participate effectively in multilingual communities. A minority of educators choose to use little or no IT in their teaching. The review of literature continues by shedding light on modern practices with IT that are most highly recommended by second-language scholars.

What Are the Current, Recommended Practices?

SLA researchers have tapped into several digital technologies and use these tools in their own teaching. In order to discover what the most modern practices are, this review is composed of literature from the past 10 years. The literature reveals that teaching hybrid and virtual courses and using mobile devices, apps, and social media to teach are the most contemporary practices. Less contemporary practices such as discussion forums, film, video, and writing assistant programs are the most prevalent practices.

Apps and Mobile Devices

Lys (2013) addressed the following thematic areas: 1) Conversation between non-native speaker dyads, 2) Open-ended recorded speech, and 3) Online news broadcasts and short documentary features. The goal of her study was to investigate the oral language development of 13 learners of German using iPads in an advanced conversation class at a private research university in the US. While using the iPads, all students were actively engaged in a variety of speaking, recording, and listening tasks during the quarter inside and outside of class. One specific task was for the students to speak in the target language with each other through FaceTime outside of class. The participants produced eight recordings that served as the basis for the analysis; the researcher measured the length of the recording, counted the amount of words and sentences produced, calculated the fluency rate, and evaluated overall proficiency and accuracy. The participants also completed an exit survey.

The results of Lys' (2013) study showed that doing real-time conversational activities through Face-Time helped improve oral proficiency in the advanced students, that students felt more comfortable with speaking in the target language with each assignment overtime, and that students became more certain of their skills and had more to say as the study progressed. The study also found that iPads had a positive impact on the amount and the quality of language the study participants could produce at the end of each practice unit and at the end of the nine-week class. The study further revealed that implementing iPads in the classroom had challenges including the fact that the infrastructure needed to be updated (e.g., connectivity, projection system) and the instructor and the students required technical support throughout the quarter. Overall, Lys' (2013) results are consistent with a series of findings from the literature,

confirming “that the additional practice afforded by using an iPad indeed increased the amount and quality of the oral production in the learners” (p. 107).

The results of Lys’ (2013) study implied that many instructors hesitate to integrate mobile devices into the language classroom for lack of understanding of how language learning and teaching could benefit from such integration. Godwin-Jones (2011) attributed this phenomenon not so much to “hardware / software shortcomings” but to a genuine lack of “conceptualization of how language learning could be enhanced in new, innovative ways with the assistance of mobile devices” (p. 7). Lys (2013) also claimed that a lack of class time during the regular four-year curriculum and limiting class discussion to a question-and-answer format do not encourage extended discourse. Lys (2013) argued furthermore that studying abroad may help students acquire advanced second-language proficiency; however, iPads offer an alternative and even more efficient avenue to increasing second-language proficiency due to the “the integrated scaffolded nature of the tasks using iPad technology” (p. 107). In my opinion, extending class time and communicating face-to-face with the instructor and peers would increase the amount and quality of the oral production in learners without having to rely on iPads. Ultimately, to increase oral proficiency, it would be ideal for students to immerse themselves in the target language by traveling abroad. It is my understanding that using iPads to communicate in the target language offers a positive simulating experience of immersion.

Godwin-Jones (2011) explored the state of language learning apps, which are HTML-based programs that use JavaScript and CSS to provide interactivity while using a mobile device. A huge advancement in the functionality of apps arrived with the Apple iPhone in 2007 and then touch screen tablets, such as the iPad introduced in 2010. Most of the new generation of smartphones had faster 3G or 4G cellular connectivity along with even faster Wi-Fi. Built-in

storage was greatly enlarged, with flash memory having in recent years become cheaper and smaller and having higher capacity. As of 2011, the popular language learning apps were Anki, Quizlet, Wordreference.com, Duolingo, Conjugation Nation, Rosetta Stone, Byki, Babbel.com, Hello-Hello, Living Language, and Cloudbank. *Repurposed* apps are general purpose apps that could be used in language learning, such as Google Translate and Talk to Me, both offered by Android. Godwin-Jones (2011) concluded that for language learning purposes, native app development may not be the best choice because it compels language learners to acquire a specific brand of device to use its respective apps. An alternative to developing native apps is to create instead a Web app oneself, which Godwin-Jones (2011) had done with his second-year German students. In addition to the mobility, enhanced hardware, and better software of new mobile devices, these devices encourage a new kind of relationship between user and machine, creating a personal, intimate connection, becoming part of one's personal identity.

It is my opinion that, although mobile devices are designed to be personal, it is up to the owner of the device to use it as superficially or intimately as they see fit. "As personal devices, smartphones are ideal for individualized informal learning. The user determines which apps to acquire and how to use them" (Godwin-Jones, 2011, p. 8). The research on apps suggests that language educators should encourage and assist the learner autonomy that mobile apps enable and provide means for learners to combine formal and informal learning.

Texting is another way to learn a second language using a smartphone. Olivier-Wallis (2010) proposed activities that prepare the exchanging of text messages (called *SMS* or *textos* in French) without necessarily using cell phones in the classroom. SMS is a system that allows users to send text messages under 160 characters to save time and make communication quicker. For the activities proposed by Olivier-Wallis (2010), one must solely rely on the phonetic

representation of words to communicate text messages (e.g., 2m1 = demain). The researcher pointed out three types of SMS: words composed of letters as they are pronounced in the French alphabet such as HT (acheter/acheté), words composed of both alphabet letters and numbers such as 10QT (discuter/ discuté), and words composed of alphabet letters or both alphabet letters and numbers plus a portion of regular French orthography such as douT (douter/douté). The researcher performed the SMS writing activities with students from the beginner's level to the intermediate level of French. The research showed that the students found pleasure in studying the language and using a device that they manipulate easily in order to learn. Another finding revealed that through SMS exercises, the students became aware of the poetry and the beauty of the French language through its tonality and without memorizing lists of words or expressions. Olivier-Wallis (2010) explained, "It's not just about a playful method to learn the French language but also an effective mnemonic method" (p. 280). The research concluded that since cell phones have almost become an extension of the human body, it should be taken advantage of for the learning of second languages.

Although SMS French significantly shifts the established language, the literature on mobile devices suggests that it should neither be rejected nor neglected in the phonetic study of the French language. Whether we use cell phones, laptops, or tablets, the literature shows that the functionality of mobile devices should encourage new thinking in ways to teach and learn second languages on the go. The classroom is an indoor learning space where the learner interacts with an expert educator, as well as with other learners, together aiming at common objectives. For that reason, I find appropriate for language learning activities involving mobile devices to be done outside of class to reinforce what is taught within class sessions.

Social Networks

Using social media as a pedagogical tool was the focus of Drewelow's (2012) research at a large university in the southeastern part of the US. Graduate students who met face-to-face (F2F) twice a week were required to use Twitter for 11 weeks by tweeting a minimum of 15 times each week. Student data from a questionnaire showed that Twitter contributed to a sense of community, lowered students' anxiety in their participation, promoted engagement, and contributed to enriched discussions in the classroom. The participants felt that the discussions on Twitter tended to remain an artificial academic exercise, and the results showed that the full collaborative potential of Twitter was not achieved because of the implementation methods. (Students participated in the experiment as a mere graded course requirement.) The research concluded that Twitter is most favorable for teachers' professional development by building their own teaching resource community, practicing collaboration, and making connections on a global and local level.

Ngandu Tshiebue (2016) investigated whether learning with computers and Web 2.0 would improve the efficiency of nineteen students of fourth-semester French in a southern US state university, especially in communication skills and cultural knowledge. The goal of this action-research study was to create a link between the textbook and the Web by transforming textbook exercises into creative and fun Web activities in a foreign language computer lab. Together, the researcher and her class created their own social network using Facebook, where assignments completed on numerous other platforms were regularly posted and graded. Through the action-research approach, the study found that the pressure of writing to a real person and for a real purpose via Facebook motivated students to practice correct sentence structure in French. Other findings showed that students learned that Google Translate was not as reliable as online

dictionaries. Students also learned how to manipulate Windows and the Internet in French. For specific examples, students learned the words *start*, *click*, and *download* in French. The study also revealed that, overall, the time spent learning French using technology has the potential to be a “useful and practical way to improve language skills” (Ngandu Tshiebue, p. 12). The research concluded that students enjoyed the Web assignments, that the researcher’s experience expanded her own knowledge in both teaching, learning, and using cyber technology, and “that as long as [technology] continues to evolve and offer new modes of learning and teaching, the educational possibilities are endless” (Ngandu Tshiebue, 2016, p. 27). The study suggested to continue researching the value in teaching foreign languages with cyber technology, not necessarily to choose a side and commit to it, but to see the possibilities in merging the two.

Hybrid and Online Learning

Saury & Scida (2006) and Gascoigne & Parnell (2013) both conducted comparative studies between groups of university students of French or Spanish taking a hybrid course and other groups taking a traditional F2F course. A hybrid course is an education program that combines online digital media with traditional classroom methods. Saury & Scida’s (2006) goal was to establish whether the hybrid course would result in any significant deficit in student learning or in their classroom experience. Seven years later, Gascoigne & Parnell (2013) asked, 1) Can learning outcomes in a beginning French course be maintained within a hybrid format? 2) How do beginning French students perceive the hybrid course? 3) Is there a possible impact of the hybrid experience on future enrollment? Both studies measured scores of assessments and exit surveys as well as the students’ average persistence rate (the rate of students going through a second then third semester of French). The findings indicated that there were no significant differences between student performance in traditional sections and technology-enhanced

sections on course homework assignments, participation, oral interviews, unit exams, composition grades, final exams, and final course grade. There were also no differences in student performance on measures of listening proficiency and oral proficiency. The research on hybrid learning of second languages concluded that learning outcomes in a beginning French course could be maintained within a hybrid format.

Similar to hybrid learning, full online learning is a popular practice. Papalas (2013) questioned whether synchronous distance education (DE) would be a viable direction for French studies in order to save programs from budget cuts and designed an online beginning French course in the spring of 2011. “Since DE can signal money-saving to administrators, there is often a willingness to invest in it, which is one reason why there were available funds to design DE courses in my university” (Papalas, 2013, p. 99). She compared the outcomes of teaching a DE beginning French class with those of a traditional on-campus F2F beginning French class. The instructor met her DE students three times a week at 5 p.m. for 50 minutes online via the platform Centra. Synchronous DE classes are courses where teacher and students meet live, speak, and see each other at the same time from different locations. The virtual classroom offers real-time audio and video communication, a white board, document sharing, and chat rooms to facilitate group activities. The research outcomes revealed that, for the instructor, it was reassuring to know that numerous pedagogical principles applied in the traditional classroom can be applied to DE. Another outcome showed that, for unknown reasons, fewer students opted for the DE course than the F2F course. Low enrollment in DE courses turned out to be a good feature because it allowed more time for communication “between students and their instructor and [gave] students enough opportunities to speak and ask questions” (Papalas, 2013, p. 107). Although low enrollment in the DE course helped fulfill the same pedagogical principals

maintained in the F2F course, it contradicts the idea that DE can serve many more students and thus be a cheaper option. The research concluded that synchronous DE is a somewhat viable format that offers learning within a cohesive group; however, universities must consider the availability of local area networks (LAN), broadband speed, and ironically, enrollment size.

Both studies on hybrid and online learning were sparked by the desire to maximize the teaching resources and to take advantage of new instructional technologies available at the time for FLL: “We have an ongoing goal of developing more web-based instruction that includes more images, audio, and video to increase cultural immersion as part of the learning experience. The only factor that currently prohibits us from doing large-scale projects is funding” (Saury & Scida, 2006, p. 528). The literature on hybrid and online learning reveals that teaching a second language via an online platform within the appropriate context can be a positive pedagogical experience for both the educator and the learners. The literature also shows concern that hybrid and online learning limits real-time F2F interaction, which defrauds the students of the range of functions it fulfills, such as student-faculty contact, reciprocity and cooperation among students, active learning, and prompt feedback.

Online Discussion Forums

Larson & Keiper (2002) sought answers to the question: What are the benefits and limitations of threaded discussion (TD)? Using the methodology of qualitative comparison between F2F discussions and TD, Larson & Keiper (2002) found that TD provided students a decent forum for solid academic interactions, that it required a large amount of time outside of class, that students interacted more via TD if the instructor assigned a certain number of comments, posts, and responses, and that TD could last longer than a F2F discussion because the Internet allows the discussion to transcend its time and place.

Garrett-Rucks (2013b) investigated the changes in learners' cultural understanding, the changes in their impressions, and the reasons for these changes in a computer-mediated environment. The pedagogical methodology consisted of adult learners participating in weekly online classroom discussions in English about French people and their culture collectively on Blackboard, preserving target language use for the physical classroom. The same year, Garrett-Rucks (2013a) investigated the question: To what extent does the use of explicit cultural instruction, authentic texts, and French informants in discussions among peers in a computer-mediated environment foster learners' intercultural sensitivity? The three computer-mediated instructional materials used for this study came from a French virtual smile museum, a French Yahoo Answers discussion forum, and an international business communication website. Garrett-Rucks' (2013a) research concluded that diverse perspectives must be provided during online classroom discussion to cultivate meaningful cultural inquiry. Per the students in Garrett-Rucks' (2013b) study, it was determined that the perspectives of members of the target culture in instruction via video interviews were valuable in terms of information authenticity. One of her students commented:

I'd be more likely to believe the things I hear in the interviews, because, you know, when you read a book, you're not sure when it's written, and you know what you read is defined by who wrote it, so there's a bias by the author ... or you know, customs change, and maybe the book is 10 years old... but when you hear the video, or see native speakers talking about it, it brings it home and it seems more authentic. (Garrett-Rucks, 2003b, p. 203)

The literature reveals that merging TD and F2F is beneficial to differentiated instruction. F2F is beneficial by teaching students how to interact in the target language with someone who holds a different opinion. Regarding opinionated writing in the target language, TD makes students feel "safer" speaking their minds from behind a computer screen where their physical selves cannot be seen. On a positive note, computer-mediated environments allow contemporary

language teachers to enable learners to see the world through others' eyes and thus prepare skilled graduates for the challenges posed by our increasingly multicultural and global societies. It is therefore important to support teachers in designing effective computer-mediated cultural lessons that (1) address the diverse perspectives among native speaker groups and (2) can be easily implemented using online classroom discussion technologies.

Writing Assistant Programs

Rodina (2008) reported her experience using Track Changes (the annotation tool in Microsoft Word) to add comments and corrections to electronically-submitted literature papers. The method of grading students' compositions using Microsoft Word's Track Changes led to the teaching of other technologically relevant applications: The researcher taught students how to label file names properly, insert grammatical French accents in their texts, format their compositions properly, and operate an email account and a shared directory on a server.

According to the literature, writing assistant programs are found to be a factor of improvement in student writing in the target language. The implementation of computer-based grammar and vocabulary practice shows a small to moderate positive effect by conveying higher scores for composition quality and quantity. The research on writing assistants shows that, compared to the use of the traditional composition writing, the benefits of using computer-based grammar tools consists of better legibility, useful time consumption and effort, accurate and permanent record of the compositions, proficient grading system, collective correction and feedback, feeling of community, and easy access to Microsoft Word, the Internet, and email (all three items provided by universities nowadays). From my teaching experience, I have learned two downfalls of using writing assistant programs for students' compositions at the beginner level: self-correct features, and an invitation to plagiarism. In my judgment, it is preferable to

require beginner-level students to write compositions by hand and in class. Although writing assistant programs do not qualify as the cutting edge of technology innovation, the research concludes that basic technical competence and campus-provided services are beneficial to upper-level grammar courses in universities.

Telecollaboration

Email and chat are other forms of online writing that are useful for *telecollaboration* with authentic native speakers. Jin (2013) investigated whether Sino-American intercultural telecollaboration would assist American learners' Mandarin Chinese production quantity and quality and how language development is scaffolded from a sociocultural theoretical perspective in Sino-American telecollaboration. In a 10-week Sino-American telecollaborative project, 10 beginner-level American learners of Mandarin Chinese at a private university in the Midwestern US directly interacted via email and text chat with their randomly-paired native Chinese partners in China. The findings showed that the American learners' production quantity in Mandarin Chinese increased steadily. However, the quality of their production did not improve as rapidly. In addition, the American learners self-reported gains in age-appropriate cultural information, reading ability, and expanded vocabulary.

Video-communication is also a form of telecollaboration. Jauregi et al. (2012) investigated the following questions: 1) What are foreign language learners' experiences? 2) Is there any impact on motivation? 3) Is there any indication suggesting that learners learn more if they have the opportunity to engage in networked interaction with experts according to relevant tasks? 4) What happens during those cross-cultural interactions? The methodology used for their research was the NIFLAIR project, in which surveys, interviews, tests, and recorded interactions among students, teachers, and ICT administrators, had been gathered for analysis. A group of

430 participants (second-language learners and native speakers) interacted for two years. One section of participants interacted during video-communication sessions and another section interacted using voice-enabled 3D virtual worlds (*Second Life*). The results of this project showed differences between the pre- and post- tests, confirming learning growth. Students enhanced their interaction skills with native speakers. In addition, there was a significant exchange of social and cultural meaning during the online interactions.

Perez-Hernandez (2014) described the method of teletandem and its origin, dating back to 1997 at the Massachusetts Institute of Technology. João Antonio Telles is an originator of the term "teletandem," which is a teaching method that "some foreign-language professors at American colleges are using to match their students with partners [in classes of the same proficiency level] in other countries and to provide authentic language-immersion experiences" (Perez-Hernandez, 2014, p. 1). Also known as "telecollaboration," teletandem is an Internet-era version of pen pals. It uses video-conferencing platforms such as Skype, Google Hangouts, or Adobe Connect to complement both in-person and online language courses. Students rely on notes, hand gestures, and facial expressions, and they occasionally share images to communicate vocabulary that they do not know. In this article, educators who practiced teletandem claimed from their own experiences that students benefited from this method by learning more than a language, "also knowing how to behave and acknowledge differences – cultural differences, behavioral differences" (Perez-Hernandez, 2014, p. 2). Perez-Hernandez (2014) also explained that adopting the teletandem method "requires big initial investments in time and technology – computers, video equipment, and broadband connections. And all of those must be compatible with their equivalents at the partner institution" (Perez-Hernandez, 2014, p. 4). Teletandem must be accompanied by traditional in-class instruction: "If you have a high level of interaction with

the instructor through a traditional classroom, and then you have a high level of interaction with native speakers through teletandem, then you have the right ingredients for a successful learning experience” (Perez-Hernandez, 2014, p. 3). The article concluded that while technology cannot offer the full immersion experience of living abroad, virtual immersion through teletandem is the closest method to it.

The collective findings on telecollaboration research (Jin, 2013; Jauregi et al., 2012; Perez-Hernandez, 2014) indicated that the second-language learners’ vocabulary production quantity in the target language steadily increases if scaffolding conditions are planned and maintained by the instructor. The findings also revealed that the overall experience of telecollaboration enhances learners’ interaction skills with native speakers, that the interaction media motivates the second-language learners to communicate, and that there is a significant exchange of social and cultural meaning during the online interactions. “Advanced conversation should be real experience, where you feel that you are communicating at a native level” (Perez-Hernandez, 2014, p. 3). There are, however, two identified burdens. First, when synchronous tools (chat, video-communication, and virtual world) are being used in telecollaboration, there is an organizational burden in scheduling a time to be online (especially considering time-zones). However, when asynchronous tools (eg. email) are being used, the writer is not on a time clock. Second, technical malfunctions do occur.

Film

Gross (2007) and Boumtje (2009) both described the incorporation of film in their courses. Gross (2007) attempted to create a student experience of being there both in temporal and spatial terms within her contemporary cultures course, while Boumtje (2009) used film as a means to overcome difficulties to understand deeply a novel and to gain a diversity of points of

view regarding a certain theme. Both researchers applied their study on second-language college students. Their studies on incorporating film into a second-language course revealed that students can better discern the complex layers of identity and that they become further sensitized to the linguistic identities of each theme or generation studied in the course. Their research concluded that films must not be viewed as competing with the traditional literary text even though they are rich in representations of the visual and auditory texture of language, space, and human interaction across many contexts relevant to a French cultures course.

The literature suggests that film is an effective way to encourage students to analyze texts deeply through comparison between text and film, allowing the students to present their own interpretations. Also, by viewing films over a certain period of time, students are able to consider various artistic styles and the controversial history of certain films as well as the films' relevance to current world events. Overall, viewing contemporary films in class provide endless opportunities for student discussions, making the course interactive. Evidently, educators must consider the objectives of the course before thinking of film choice.

Web Activities

Web-based practices are a gateway to online sources, exposing second-language students to the target culture, an ideal concept to achieve cross-cultural instruction. Spodark (2004) and Sconduto (2008) questioned whether the kinds of Web activities practiced at the introductory and intermediate levels of French language instruction produced cultural understanding and worldview empathy. They also asked how to convey the interest of Francophone culture and civilization to students in a classroom located thousands of miles away from French-speaking countries while making the course appealing and relevant to these students. Spodark (2004) first employed a student-centered, Web-based method to teach a senior seminar course on Quebec,

intended to persuade students to move beyond a basic cultural knowledge of Quebecois culture through an appreciation of their own cultural perceptions. Recognizing that students were not cognitively functioning deep enough in a multi-cultural online world on their own, the researcher decided to assign primarily Web-based projects. Within the same concept, Sconduto (2008) supplemented ancillary materials pulled from textbooks, newspapers, journals, and films with numerous website links posted on Blackboard, seeking to transform students into virtual travelers in space and time. The findings showed that student-centered, Web-based activities offered the students the opportunity to discover a wealth of information through Web elements not given in the textbook such as photographs, videos, and virtual guided tours.

The literature on Web-based practices in the second-language curriculum shows that this method adds interest to the course material, enhances comprehension of the target-language text and culture, acknowledges and accommodates the needs of students with various learning styles, and fosters student autonomy in their choice of learning material. The literature also reveals that instructor's involvement during this particular learning process is crucial in transforming students from passive learners to active participants and critical thinkers (Sconduto, 2008, p. 727) since students are not motivated enough to seek to understand the worldview of other peoples on their own.

But this sort of environment, where the instructor no longer helps shape the cultural learning of the students, does not produce the cross-cultural goals of empathy and understanding that students will need to function in an increasingly multicultural world. Students do not tend to make this important cognitive leap on their own. (Spodark, 2004, p. 759)

Integrating Performance Studies into SLA Using Modern Digital Media.

Further research suggests that Performance Studies can be successfully integrated into the foreign language curriculum via new digital media so as to foster a communicative approach that

is oriented toward the notion of multiliteracies. Taylor (2013) examined three relevant applications: 1) digital performance analysis, 2) digital performance projects, and 3) foreign language student-produced film. The participants were students from a beginning level French language class. Findings suggested that second-language programs have a unique opportunity to transform their curriculum so that it reflects a more dynamic approach, one that is more pertinent to today's students. Taylor (2013) also discovered that motivated students had the potential to create high-quality digital products. In conclusion, the research asserted that exploding technological advances combined with increased interest in Cultural Studies demand that the field of education reevaluate what it means to be "literate" in another language.

Foreign language programs have a unique opportunity to transform their curriculum so that it reflects a more dynamic approach, one that is more pertinent to today's students. The explosion in technological advances, combined with increased interest in Cultural studies, demand that we reevaluate what it means to be 'literate' in another language. (Taylor, 2013, p. 121)

Taylor's (2013) results suggest that learning a second language is more than learning how to speak a language. Learning a second language opens doors to numerous other skills (including digital readiness), indicating that second-language education is such a treasurable yet often neglected subject. This review continues by focusing on literature written specifically on TAs teaching a second language and the integration of IT.

TAs of French and the Integration of IT

There is scarce literature on the specific topic of the attitudes of TAs of French toward IT. In fact, Zapata (2002) wrote that no studies "have investigated the connection between TAs' beliefs and attitudes toward instructional technology and the way in which they affect their classroom use" (p. 1).

Zapata (2002) attempted to address this gap in the body of research by investigating whether assigning Web-based and synchronous and asynchronous activities to a third-semester Spanish curriculum would “constitute a true curricular innovation or merely a change in the superficial conditions of this class” (p. 2). Data were collected through interviews, classroom observations, and debriefings with five TAs of Spanish at a northeastern US public university as participants. A comprehensive, theoretical framework integrating Engeström's (1994, 1999) model of activity theory, Gee's (1999) Discourse analysis model, Markee's (1997) exploration of curricular innovation, and Goffman's (1981) conceptions of speaker was applied in the data analysis and interpretation procedures. The findings revealed the differing perceptions, conceptualizations, and classroom use of IT among the five participants. Four of the TAs made limited or no use of technology in their classes and correlated it solely with the Internet. The remaining TA made ample use of a variety of media in her class. These differences are due to the TAs' exposure to, and participation in, the discourse of various communities of practice, which determined the role that TAs assumed in their practice and in their implementation of IT. The results also showed the importance of TA education and the need for communication and planning for their successful implementation of IT. Finally, a model for TA education based on legitimate peripheral participation was proposed, offering suggestions for the creation of activities and the determination of roles.

In a related fashion, Paradise & Bergstrom (2005) investigated the scope and extent to which GTAs are interested in, comfortable with, and active participants in the adoption of IT in the sphere of higher education. Data concerning the research questions were gathered via an online questionnaire. One hundred and seventy GTAs from nine schools and colleges at a public northeastern US university responded to a survey of twenty-five questions. Researchers collected

data on the GTAs' self-reported usage of IT, factors influencing IT use, and perceived barriers to the incorporation of IT in the higher education classroom. The survey also sought to investigate the sources of support that GTAs currently utilize for IT-related assistance and then explored the types of instructional technologies that GTAs would use if they were to receive greater technological support and training by the university. Furthermore, the authors included a qualitative dimension in the research by collecting qualitative data regarding the GTAs' experiences, perceptions, motivations, and attitudes toward the use and perceived impact of IT within the realm higher education.

Results indicated that specific factors of motivation (e.g., improved student learning, increased student interest, and enhanced presentation abilities) and certain barriers (e.g., lack of time to prepare, lack of support services, and lack of equipment and/or access) played a significant role in the usage of IT by GTAs. Survey results showed that 65.9 percent of GTAs felt that the increasing presence of IT in higher education is largely positive, 23.5 percent were uncertain as to whether the presence of IT in higher education is positive or negative, and 9.4 percent of respondents felt that the increasing presence of IT is likely to have negative implications for the future of higher education. Other findings indicated that GTAs were not receiving the support and training necessary to successfully partake in the shift toward increased IT usage.

Paradise & Bergstrom's (2005) study helped in adding greater depth to the discussion surrounding online education, suggesting a heightened need for more critical examination of IT. The voices of the GTAs provided a compelling backdrop and suggested important considerations. The research suggested that the increased prevalence of instructional technologies may indeed serve to hinder the academic careers of GTAs who aspire to fill the

ranks of tenured professors. “Today’s teaching assistants, as tomorrow’s faculty members, must be armed with the training and knowledge, as well as the critical thinking abilities, necessary for the balanced, informed, and cautious incorporation of instructional technologies into the higher education classroom” (Paradise & Bergstrom, 2005, p. 23). The researchers urged scholars and higher education administrators to give stronger consideration to their GTA training programs, particularly in regard to training that pertains to IT, all the while considering political and economic implications.

Although Zapata’s (2002) and Paradise & Bergstrom’s (2005) research were conducted over 15 years ago (as of 2017, when this dissertation was written), their findings are relevant to the literature on the attitudes of TAs toward IT and allows present scholars to consider the evolution of mentalities toward IT in higher education. This study aimed to continue their work and contribute to the existing body of research by exploring these issues further.

The remainder of the literature presented is categorized in two sections: IT yielding to the realization of TAs’ self-perspectives and IT fostering TA professional development through digital discussions and digital collaboration among peers. Before examining these two categories, however, it is important to situate within the literature what it means to be a second-language TA.

The Meaning of Being a Second-Language TA

Weidert et al. (2012) investigated the responsibilities, competencies, benefits, and teacher behaviors of 70 TAs who completed an online survey from various parts of the US. The three most relevant correlations showed that, first, the more responsibilities TAs had, the more they believed they benefited. Second, the amount of self-reported TA training was significantly related to how intellectually stimulating, and enjoyable, the TA experience was. Third, the

teaching competence of TAs was significantly related to their TA behaviors (per Weidert et al. (2012), TA behaviors are the personality characteristics that make someone a TA). The researchers also found that some TAs rated themselves as using an engaging teaching style and humor. This research concluded that faculty should strongly consider the experiences of TAs and that continued training, open dialogue, and self-reflection will provide professional development to TAs.

Allen & Negueruela-Azarola (2010) investigated research on the professional development of graduate students in foreign language departments over the past two decades and the foci that have dominated this research. The authors examined research published between 1987 and 2008 on professional development experiences of graduate students in university foreign language departments in the US by analyzing 96 articles from databases such as the Education Resources Information Center (ERIC) and the American Association of University Supervisors and Coordinators (AAUSC) of Foreign Language Programs. Their meta-analysis reviewed refereed journal papers in applied linguistics (papers, reports, studies, and dissertations), although I believe that their research can be applied to other SLA areas such as literature and phonetics. Allen & Negueruela-Azarola (2010) found that, in the second decade, a decrease in research on professional development in foreign language has occurred, a significant decrease that justifies the gap my research attempted to address.

Regarding TA beliefs and technology implementation, however, the researchers suggested “that technology’s availability does not guarantee that its potential will be realized and that listening to TAs’ needs is essential to better understand their responses to these tools” (Allen & Negueruela-Azarola, 2010, p. 383). Findings also indicate that the practice of staffing graduate students as TAs has led most graduate students to become education specialists and to join the

applied linguistics field rather than to become the typical foreign language literature faculty member. Finally, the 96 papers collected and analyzed fell under the following foci: (1) research on the role of TAs' belief systems and identities as foreign language teachers (2) research on the professional development of graduate students in foreign language departments and the implementation of specific tools and activities. In conclusion, the dominant goal of the 96 articles was to encourage professional development that embraces foreign language graduate students' long-term needs as teachers and scholars. The authors closed their report by suggesting "opening a dialogue with students about the TA experience, having TAs formally reflect on their experiences, and helping TAs to professionally develop" (Weidert et al., 2012, p. 101) as well as offering more extensive coursework linking teaching and scholarship for graduate students who intend to become professors.

Grossman & McCoy (2013) described the strategies that the Department of French and Francophone Studies at a public northeastern US university used to maintain overall enrollments and the number of French majors. The researchers looked at the principal revisions of their major offerings then at more recent uses of technology to attract student interest. The study also looked at the department's approach to TA training and found that TA training was hands-on: It included course and curricular design, lesson planning, instruction, and assessment creation. The study found that the department had implemented technology due to innovative ideas coming from TAs. These ideas included using podcasts, promotional videos, VoiceThread, and Calméo. An exit survey led to the conclusion that students considered these projects to have made their French classes engaging (Grossman & McCoy, 2013, pp. 1117-1118). Grossman & McCoy (2013) found other information regarding IT: Faculty had gained opportunities to develop technological skills; the department worked with technical support from the college; and the

department had redone its website and then maintained it with postings, current departmental information, and links to articles and photo streams on Flickr. The article concluded that the endeavors of the Department of French and Francophone Studies at this university influenced departments of other languages. The authors hoped that “sharing ideas and experiences [would] encourage other French and Francophone studies faculty, to foster recruitment efforts through curricular, programmatic, and technological innovation” (McCoy, 2013, p. 1120).

Overall, the literature on the meaning of being a second-language TA conveys that the experiences of TAs should be strongly considered by their departmental supervisors. TA training and open dialogue are necessary in order to provide TAs with adequate professional development, even more so for TAs who intend to become professors. The literature also reveals that there is minimal research on professional development in foreign language; a phenomenon that justifies the gap my research attempts to address. The next section regarding TAs of French and the integration of IT discusses how technology can help TAs to realize their self-perspectives.

IT Yielding to the Realization of TAs’ Self-Perspectives

Drewelow (2013) explored graduate TAs’ perspectives on their roles in a foreign language hybrid course by questioning 15 TAs’ self-view of their roles in hybrid courses, the impact of the nature of the online environment on their conceptualizations of their roles in a foreign language hybrid course, and the ways that their understanding of their online roles affected perspectives on teaching practices in a foreign language hybrid course. The one-semester course at a large public university in the US entailed weekly F2F instruction fused with virtual workdays that consisted of technology-mediated asynchronous activities online. The methodology used for the research was an anonymous online questionnaire from which results

were analyzed with an explanatory content analysis approach. Drewelow (2013) found that the participants assumed several roles (structure provider, student progress observer, communication facilitator) and that the instructors' role was enhanced, involving them in the learning process. The research concluded that online components were efficient for mechanical grammar exercises and listening comprehension exercises while F2F days were spent on communicative activities geared to speaking. Ironically, online components allowed instructors to interact individually with students more than when they were teaching F2F. Another conclusion was that hybrid tools could motivate instructors: "The better instructors understand what constitutes their roles and responsibilities in the hybrid environment, the more the learning process will be facilitated" (Drewelow, 2013, p. 1016). TAs cannot fully understand their role within a hybrid course if they do not have enough training.

Focusing on instructors' attitudes toward IT, Haines (2015) investigated teachers' understandings about the possibilities for using blogs and wikis in the classroom. Haines (2015) searched for the affordances that experienced undergraduate level teachers in Australia and New Zealand perceived in their initial use of blogs and wikis and the extent to which their perception of affordance developed over time. The methodology used for the research was an interpretive, qualitative approach, in which the participants were asked to reflect on their learning in relation to their first-time uses of blogs and wikis and to identify skills and understandings that had developed over time through their practice. Teacher narratives were co-constructed with the researcher through the active process of interviewing the participants three times over the 14-month data collection period of study. The study found that blogs and wikis were identified as very similar tools, supporting the pedagogical processes developing within the classroom, in terms of conversation depth and exposure to more language and phrases in the second language.

The blog was stimulating for the participants professionally and even encouraged their departmental team to apply for and receive an internal grant for developing an online site to enhance community in their first-year course across three campuses. The study concluded that the teachers' understandings about the possibilities for using blogs and wikis in the classroom developed through their actual classroom practice and that using a new tool overtime made teachers feel more positive about it.

Related to Haines' (2015) work, Mills (2011) investigated the following research questions: 1) What major sources contribute to French TAs' self-efficacy in teaching literature? 2) How do TAs' analyses of teaching task ("language" vs. "literature") and context (department) shape their self-efficacy? 3) What consequences of self-efficacy in teaching literature emerge in terms of effort, persistence, and innovation? The participants of this mixed-method study were 10 French literature doctoral students. The researcher quantitatively evaluated their sense of self-efficacy in teaching literature by creating a questionnaire based on Tschannen-Moran and Woolfolk-Hoy's (2001) Teacher Sense of Efficacy Scale. The researcher also conducted face-to-face interviews, followed by a narrative analysis of the scripts. Results revealed that although the TAs found the graduate program to be highly effective in its formation of literary scholars and language instructors, they also found that the lack of pedagogy of literature in their TA training lowered their full potential as effective literature instructors. The results of this investigation indicated that, as a group, TAs possessed a moderately high level of teacher self-efficacy in literature, which showed that even with a weak literature pedagogy in their background, TAs could teach French and Francophone literature in a moderately high-quality course. Although Mills' (2011) article does not focus on IT, the study is relevant to TA training, opening the question of why and how TAs may or may not use IT to teach literature courses.

The literature on TAs' self-perception and self-efficacy concludes that TAs must address their own understanding of the pedagogical values of online tools. TAs must acquire skills through specific training in order to develop digital skills that will foster students' success. The next section discusses how IT fosters TAs' professional development through online interactions among them.

IT Fostering TA Professional Development Through Digital Discussions and Collaboration Among Peers

Another approach to professional development for foreign language teachers is through peer collaboration and discussions, and those interactions often take place online. Arnold (2006), Lomicka & Lord (2007), and Drewelow (2012) have studied the social aspect of communication and collaboration among TAs using online media. Their research consisted of investigating participant engagement in electronic exchanges among TA colleagues, comparing traditional monologue and dialogue, email dialogue, the online group discussion forum Blackboard, and the social media platform Twitter. The question of social and cognitive activity in terms of level and frequency was raised. Arnold (2006) found that students progressed in their cognitive understanding of the pedagogical topics discussed in class, that they employed social presence to aid their discussions, that they engaged in a high degree of interactivity as well as all types of social and cognitive presence, and that they benefited from communicating with students from other universities. Lomicka & Lord (2007) found that paired and grouped journalers produced more discourse than the traditional journalers: traditional: 4,134.5 words per person; dialogue: 8,406.0 words per person; discussion board: 6,493.8 words per person. They also found that each group co-constructed their social presence differently and that three categories of discourse prevailed (affective, cohesive, and interactive). Drewelow's (2012) experiment showed that

Twitter contributed to a sense of community, lowered students' anxiety in their participation, promoted engagement, and contributed to enriched discussions in the classroom. The participants felt that the discussions on Twitter tended to remain an artificial academic exercise, and the results showed that the full collaborative potential of Twitter was not achieved because of the implementation methods (students were participating to the experiment as a mere graded course requirement). "Only four students indicated on the survey that they may try implementing it in their own teaching. The following semester, none of them had attempted to use Twitter in the elementary language courses they were teaching" (Drewelow, 2012, p. 139-140).

The literature concerning TA professional development through discussion and collaboration via digital media concludes that the type of media platform influences the quantity and quality of the online activity as well as the quantity and quality of techniques used to build social presence. Trust and cooperation are important factors that can assist in fostering a positive and supportive social climate for a virtual community (Lomicka & Lord, 2007, p. 223). Once these factors are set in place, social presence leads to deep and meaningful learning, fostering favorable TA professional development by engaging them into building their own teaching resource community and practicing collaboration and making connections on a global and local level while developing their identities as instructors. In the next section of this literature review, two individuals are perceived as significant contributors to the study of TAs of French and the integration of IT.

Significant Contributors to the Study of TAs of French and the Integration of IT

Two researchers have greatly influenced my thinking and their research exemplifies quality investigations into the field. Drewelow (2012; 2013) and Garrett-Rucks (2013a; 2013b; 2016) are two active researchers in the teaching and learning of second languages in the higher

education setting. They both have a special interest in IT and TA training. Both scholars hold a doctorate degree from the University of Wisconsin-Madison. Their work appears in leading journals in the field including the *Modern Language Journal (MLJ)*, *Foreign Language Annals (FLA)*, *French Review*, *The Language Educator*, and *Computer Assisted Language Instruction Consortium Journal (CALICO)*. Their numerous publications provide pertinent information to anyone interested in teaching and learning French language and culture using the newest digital tools and practices. Highlighting their contributions to the field also illustrates the paucity of research in this specific area.

Drewelow (2012; 2013) is an Assistant Professor of French and Linguistics, as well as the French Language Program Director for Beginning and Intermediate Instruction at the University of Alabama. Drewelow (2012; 2013) teaches various levels of French and prepares and mentors GTAs throughout their years of language teaching at the University of Alabama, (Tuscaloosa, Alabama). Drewelow's (2012; 2013) research interests include SLA, foreign language learners' stereotypes and beliefs, foreign language teachers' attitudes and beliefs, the teaching of culture in the foreign language classroom, and the integration of technology in language learning and teaching. Current research projects include investigating learners' perspectives regarding the implementation of an online discussion forum as a collaborative learning tool to develop cultural knowledge in a Commercial French course and examining the development of multimodal literacies through website design in a language course. (University of Alabama, 2016). Drewelow (2012; 2013) has contributed to the field with articles such as "Twitter in the Teaching Methods Course: Foreign Language Graduate Teaching Assistants' Perspectives" (2012). Drewelow (2012; 2013) uses Twitter herself, having joined in 2011

(Twitter, 2017). Having published 10 articles since 2007, Drewelow (2012; 2013) is a well-accomplished scholar as well as an admired instructor (The University of Alabama, 2016a).

Garrett Rucks (2013a; 2013b; 2016), Assistant Professor of French at Georgia State University (Atlanta, Georgia), specializes in fostering intercultural competence in instructed language learning, second-language hypermedia text use, and dual language immersion. Recent and forthcoming publications center on the formation of second-language learners' cultural perceptions and stereotypes, the role of affect in second-language learning, learning gains with L2 hypermedia text use and second-language language use, and identity issues in dual language immersion (Georgia State University, 2016). Garrett-Rucks (2013a; 2013b; 2016) has published fifteen articles and two book chapters. Her recent book, *Intercultural Competence in Instructed Language Learning: Bridging Theory and Practice* (2016), provides a framework to foster second-language learners' deep cultural reflection while preserving target language use policies, summarizes several study findings on culture learning projects at various K-16 instruction levels, and challenges SLA educators "to advocate for their foreign language programs and to give greater visibility and credibility to the profession in institutional internationalization efforts" (Information Age Publishing, 2016). Further contributions include the creation of numerous annotated hypermedia texts for her instruction and research, which are available from her departmental profile page online (Georgia State University, 2016). Garrett-Rucks (2013a; 2013b; 2016) serves on the executive board of the Southern Conference on Language Teaching (SCOLT) as the editor for the journal *Dimension*. She is also the current Chair (2016-2018) and former Secretary (2013-2015) of the American Council on the Teaching of Foreign Languages (ACTFL). Garrett-Rucks (2013a; 2013b; 2016) teaches multiple courses on Foreign Language Methods, SLA Learning and Theory, and French. "She enjoys training and collaborating with

Graduate Teaching Assistants in her Department of World Languages and Cultures and mentoring and serving on dissertation committees with students from the Department of Applied Linguistics and the College of Education” (Georgia State University, 2016).

Conclusion

Overall, this literature review conveys the conclusion that IT is a powerful instrument worth being implemented in the training and practices of TAs of French. However, accessibility to and discrepancies in specific digital tools must be considered before using them. The published experiments of researchers are a great help to those interested in “plugging” into the newest instructional technologies. Educators, however, should remember that a strong focus on pedagogy means that the value of a new technology tool is always seen in relation to how it benefits their students’ language learning. That been said, the kinds of enhancements that teachers seek in new technological tools relate very much to their individual contexts.

Support for learning to use new tools should occur in pre-service courses and teacher training as well as in situated contexts. Educators have access to a wide range of tools to gain awareness of existing tools and the confidence to try out new ones (Haines, 2015). Through this process, new teachers can be trained to look for learning affordances, which may mean quicker perceptions of affordances of future technologies (Haines, 2015). As suggested in the 2007 MLA report, the curricular unification of language, culture, and literature at all levels should be encouraged (Mills, 2011), and instructional technologies, employed the proper way and in the proper setting, have the power to do just that.

CHAPTER 3: METHODOLOGY

Introduction

The proliferation of technology and social media has changed the way university educators teach French, how college students learn French, and the way instructors and students communicate in French during class and beyond physical class settings. This case study considers the attitudes of a TA of French toward IT and how these attitudes affect the teaching and learning of a second language in college classrooms. The research and case study questions sought to clarify the framework of the case regarding the duration of the study (a spring semester and a summer session), the relevant socio-professional group (TAs of French), the geographic area (a department of French studies at a southern US public university), the type of evidence collected (interviews, observations, and documentation), and the priorities for data collection and analysis. A theoretical framework integrating Davis' (1986) technology acceptance model (TAM) provided a basis for tracing the impact of external factors on internal beliefs, attitudes, and intentions of a TA of French toward IT.

Research Questions

Taking an inductive approach to my study required me to use research questions to narrow the scope of the study. With a case study, I was able to focus on the “how,” which required an up-close, in-depth, and detailed examination of a subject of study (a case), as well as its contextual environment (Yin, 2014). In the thematic approach to narrative analysis (an approach that was used during the analysis step of this study), asking the question “what” yields to a “straightforward” answer that is in plain sight, whether written or spoken (Riessman, 2008, p. 73). The overarching “how” question that frames the study is: How does a TA of French feel

about the implementation of IT resources in the courses that she teaches? The study consists of four “what” questions:

- 1) What are the personal experiences of a TA of French at a southern US public university with technology prior to, during, and after her assistantship?
- 2) What are the internal beliefs, attitudes, and intentions of a TA of French regarding the importance and implementation of IT?
- 3) In what ways does a TA of French implement the IT instruments and resources that are accessible to her in the course that she teaches over the period of a semester?
- 4) What are the PU and PEU of these instructional technologies according to a TA of French?

These questions are targeted toward a precise number of events or conditions and their inter-relationships. Gaps found in the literature review led to these insightful questions about the research problem. The naming of these questions pinpoints where to look for evidence and helps determine the methods of analysis to be used in this study.

The Case Study Research Design

“The distinctive need for a case study research arises out of the desire to understand complex social phenomena. A case study allows investigators to focus on a ‘case’ and retain a holistic and real-world perspective” (Yin, 2014, p. 4). According to Yin (2014), case studies can be used to explain, describe or explore events or phenomena in the everyday contexts in which they occur. A case study is a qualitative or inductive research design that focuses on understanding a clearly defined issue or problem in seven steps: 1) identify the issue of importance to the research interest, 2) identify the specific focus, 3) identify the research questions, 4) choose the case or cases that will be information-rich in helping answer the

research questions (also called the sampling process), 5) gain access to the case or cases and collect appropriate qualitative data relevant to the research questions (interviews, observations, artifacts), 6) analyze the data, and 7) write the report (Yin, 2014). Case study research is an inductive approach: it is concerned with generating a new theory emerging from the data. A case study is more advantageous to addressing the research question of this study than other qualitative research designs, such as phenomenology, grounded theory, or ethnography, because it describes in-depth the experience of one person, group, or institution.

This study examined an intrinsic case in which findings are presented in terms of the attitudes, values, perspectives and beliefs of the individual TA. What began to develop through this process is the case's critical stance on the usage of IT within her pedagogical practice. Stake (2005) explains what he calls an intrinsic case study:

I call a study an intrinsic case study if the study is undertaken because, first and last, one wants better understanding of this particular case. It is not undertaken primarily because the case represents other cases or because it illustrates a particular trait or problem, but instead because, in all its particularity and ordinariness, this case itself is of interest. The researcher at least temporarily subordinates other curiosities so that the stories of those "living the case" will be teased out. Study is undertaken because of an intrinsic interest in, for example, this particular child, clinic, conference, or curriculum. (Stake, 2005, p. 445)

I have identified a case where there was access and a willingness to participate. The exploration of this case was driven by a desire to know more about the uniqueness of her perspective. Stake (1995) suggests that the primary criteria of the case should be "opportunity to learn" (p. 6). With a case study, I could position myself as a researcher near the individual, ensuring maximization of learning opportunities.

Theoretical Framework

The theoretical framework explains the key factors, concepts, and variables to be studied and the presumed relationships among them (Miles & Huberman, 1994). In this study, a theoretical framework integrating Davis' (1986) technology acceptance model (TAM) was applied in the data collection, analysis, and interpretation procedures.

Technology Acceptance Model

Davis (1986) introduced TAM, which specifically explains computer usage behavior. The goal of TAM is to provide a prediction and an explanation of the factors that determine end-user acceptance of computing technologies. A key purpose of TAM relevant in this study is to “provide a basis for tracing the impact of external factors on internal beliefs, attitudes, and intentions” (Davis et. al, 1989, p. 985). TAM posits that attitude toward using a technology system is a function of two beliefs, *perceived usefulness* and *perceived ease of use*, which are of primary relevance for computer acceptance behaviors, modeled in the figure below.

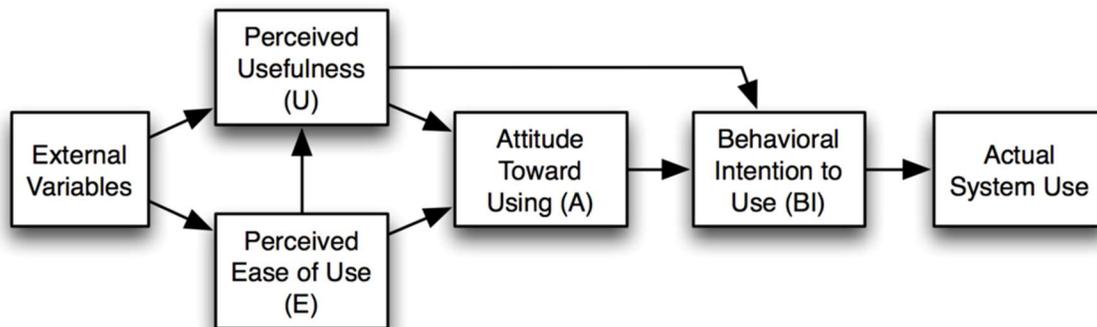


Figure 3. Technology Acceptance Model. Adapted from “User Acceptance of Computer Technology: A Comparison of Two Theoretical Models,” by Davis, F., Bagozzi, R. & Dan Warshaw, P. (1989).

PU (original acronym U) is defined as the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context (Davis et. al, 1989). PEU (original acronym E) refers to the degree to

which the prospective user expects the target system to be free of effort (Davis et. al, 1989). Attitude Toward Using (A) is defined as an individual's positive or negative feelings (evaluative affect) about performing the target behavior. Behavioral Intention to Use (BI) is a measure of the strength of one's intention to perform a specified behavior (Davis et. al, 1989). Actual System Use tells how, when, and for what purpose the participant uses particular IT resources (Davis et. al, 1989).

The quantitative nature of TAM is expressed by structural equations that imply that, “all else being equal, people form intentions to perform behaviors toward which they have positive affect” (Davis et. al, 1989, p. 986). In this study, the qualitative aspects of TAM were used to explore the TA’s Actual System Use during my observations of her classes and during my collection and analysis of her lesson plans and Moodle platform. Furthermore, PU and PEU shaped the interview questions with the purpose of tracing the impact of external variables on the TA’s internal beliefs, attitudes, and intentions to use IT.

Setting and Participant

The single participant in this study is a TA of French who was responsible for teaching an intermediate French literature course during a spring semester and a fourth-level French language course during the subsequent summer term at a southern US public university. Her role as an instructor is the same role as the one I had been practicing for three years at the same university. The participant is a PhD student in the graduate program of the Department of French studies. The participant is of European background, in her thirties, and is not a native speaker of French. Limited personal information on Charlotte (pseudonym of the participant) is given to protect anonymity. The classes that she taught during this study are further described to help give a full context to the parameters of the study.

French 2155: Readings in French Literature

This course is an introduction to interpretive reading of French texts and fosters the development of competency in written French. Charlotte was responsible for creating the syllabus for the course. Scheduled in the spring semester at the time of my study, the class met twice a week in a classroom equipped with a computer, Internet access, and a projector. The main objective of the course is for students to practice reading and interpreting francophone texts in order to prepare them for a more diligent study of French and Francophone literature, while at the same time refining their writing and speaking skills through critical analysis. While taking this course, students read a play, a selection of poetry, a comic book, and prose from several different geographic locations with cultural and historical ties to metropolitan France, including but not limited to Belgium, West Africa, the Maghreb, the Caribbean, and Quebec. Within one semester, the course approaches texts in different ways: collaborative reading and performance, individual responses and questions to a reading, oral presentations, visual media such as film, and vocal stimuli such as music and recitation. The class is taught entirely in French. Charlotte was not expected nor required by the Department Chair to prepare technology-based activities for this course.

French 2102: Intermediate French

French 2102 is the second course of the two-semester sequence that constitutes the Intermediate French Language Program at the university site. The course teaches structures and lexicon of French with additional emphasis on reading and writing. Scheduled in the summer term at the time of my study, the class met Monday through Friday for one hour and thirty minutes during five weeks. While taking this course, students intensively practice the four basic skills for language development (listening, speaking, reading, and writing) and explore the

cultures of Francophone peoples around the world. The primary textbook for this course is *Imaginez* (Champeny, 2015) in which students learn lessons 6 through 10. There is supplementary work using the online workbook *Imaginez Supersite* (Vista, 2017). It is the departmental policy that the course be taught exclusively in French.

Charlotte and her Integration of IT

The participant described herself as an experienced technology user in her academic life. Before the study started, she asked me to provide her with ideas of IT resources that would help her enrich her courses. The participant had daily access to a computer and the Internet. Her students all had access to the same technology. The participant claimed that she enjoys using IT for the following purposes: exposing her class to the Francophone world, teaching her students how the Internet can help them write in French without cheating (e.g., by showing them how to use proper online dictionaries and how to use online tools to ensure correct quotation accreditation), and assigning her students to post reading comments or questions on the course's LMS forum (Moodle).

Data Collection

Creswell (2007) argues that “the data collection in case study research is typically extensive, drawing on multiple sources of information, such as observations, interviews, documents, and audiovisual materials” (p. 75). In the same context, Stake (1995) identifies triangulation as a “quality assurance tactic to ensure that case study research is based on a disciplined approach and not simply a matter of intuition, good intention and common sense” (p. 107). Triangulation in case study requires the researcher to use multiple data points to establish and deepen meaning. More specifically, methodological triangulation involves employing a range of data collection methods to seek different perspectives on the case study topic, to check

interpretation, and to reveal alternative meanings. Using multiple instruments was appropriate for this study because I strived for an in-depth understanding of the case, maintaining the role of case study research as an exploratory tool. I developed a protocol for each of the instruments used in this study as a guide to help me achieve my research purpose (Yin, 2014). My case study protocol for interviews, direct observations, and documentation adequately assisted me in maneuvering through the entire data collection process for my study.

The following table outlines the strengths and weaknesses of the three data sources chosen for conducting my study: interviews, direct observations, and documentation. These sources of evidence have been chosen based on practicality, which is the feasibility of conducting the study while considering access, confidentiality, and cost (Stake, 1995).

Table 3. Source of Evidence

Source of evidence	Strengths	Weaknesses
Interviews	<ul style="list-style-type: none"> • Targeted—focuses directly on case study topics • Insightful—provides explanations as well as personal views (e.g., perceptions, attitudes, and meanings) 	<ul style="list-style-type: none"> • Bias due to poorly articulated questions • Response bias • Inaccuracies due to poor recall • Reflexivity—interviewee gives what interviewer wants to hear
Direct observations	<ul style="list-style-type: none"> • Immediacy—covers actions in real time • Contextual—can cover the case's context 	<ul style="list-style-type: none"> • Time-consuming • Selectivity—broad coverage difficult without a team of observers • Reflexivity—actions may proceed differently because they are being observed • Cost—hours needed by human observers
Documentation	<ul style="list-style-type: none"> • Stable—can be reviewed repeatedly • Unobtrusive—not created as a result of the case study • Specific—can contain the exact names, references, and details of an event • Broad—can cover a long span of time, many events, and many settings 	<ul style="list-style-type: none"> • Retrievability—can be difficult to find • Biased selectivity, if collection is incomplete • Reporting bias—reflects (unknown) bias of any given document's author • Access—may be deliberately withheld

Note. Source of Evidence: Strengths and Weaknesses. Adapted from “Case Study Research: Design and Method (5th ed.),” by Yin, R. (2014).

Interview Protocol

Because language is deemed to be the “centerpiece” that produces meanings (Richardson, 2005), interviews were a crucial source of evidence for the study. Throughout the entire study, informal interviews were conducted where the participant and me discussed matters pertaining to my observations and the documentation collected. In addition, communication between the participant and I was established as a result of member checking.

At the end of the spring semester, a semi-structured interview was used to generate narrative data. It focused on the participant's experience with IT prior to and during the spring semester. Questions were targeted towards a narrative that elicited "I" statements. Initially, there was an icebreaker-type question prepared to establish rapport with the interviewee and set the tone for a comfortable conversation. The subsequent questions included each of the following types: background, experience, perceptions, and knowledge. PU and PEU shaped the interview questions with the purpose of tracing the impact of external factors on the TA's internal beliefs, attitudes, and intentions to use IT. The interview was conducted in a mutually comfortable location, audio recorded, and lasted approximately one hour. The participant voluntarily agreed to be audio recorded by signing an administrative consent form before I started recording.

Throughout the summer term, a set of structured interviews were conducted weekly via email. They focused on the participant's experience with IT as well as her perception of her students' reactions to the usage of IT within the summer course. Also, interview questions posed during the summer term fostered information on the past, present, and future experiences of the participant, a sequential theme further discussed as I situate myself as a researcher. (See Appendices A, B, and C for the interview protocol documents).

Direct Observation Protocol

During extended direct observations, the researcher was immersed in the environment of the participant. The French literature course sessions were held during the spring semester on campus twice a week and lasted for an hour and twenty minutes. Direct observations of the participant teaching 12 out of 28 class sessions occurred to provide substantive feedback on classroom activities that included IT. The dates when observations occurred were chosen based on practicality (Stake, 1995) and were determined in agreement between the participant and me.

The dates when observations occurred were not chosen based on the TA's plans to use or not use IT on these particular dates. I was a silent observer who sat in the front left corner of the classroom, where I could see the whole class setting and where I was not within the direct view of the students nor the instructor. For each observation, notes were taken and organized in a protocol form. Each protocol form was saved as a Microsoft Word document. A copy of each form was emailed to the participant right after each observation sessions for member checking, which produced further informal discussions between the participant and me outside of class time.

After each observation, a reflection narrative was generated based on the notes I had taken. In these reflections, I summarized the gathered objective evidence that I had observed and heard during each class session. These reflections did not aim to evaluate the participant's techniques and experience. Rather, I aimed to reflect on the IT resources used, their nature, purpose, and effect of lesson teaching and learning. (See Appendix D for the direct observation protocol form).

Documentation Protocol

A variety of documents such as letters, reports, administrative documents, and formal evaluations related to the case being studied is the object of explicit data collection plans (Yin, 2014). "For case study research, the most important use of documents is to corroborate and augment evidence from other sources" (Yin, 2014, p. 107). Material resources and computer-generated applications that were used by the participant to teach were analyzed for a qualitative text, image, video, and audio interpretation of these documentation resources. More specifically, the participant granted me full access to her lesson plans and limited access to her Moodle platform. Per her request, the students' grades and participation on the Moodle forum for both

courses were excluded from the study. Nonetheless, as a data source, documentation provided substantive feedback on instructional technologies that were used to teach and learn French. The information recorded on the documentation protocol were summarized into narrative form and its findings are shared in Chapter 4. (See Appendix E for the documentation protocol form).

Data Analysis

To analyze the data collected, I started with my research questions, and then identified the evidence that addressed these questions. I drew a tentative conclusion based on the weight of the evidence. I did so with each question until I assumed to have addressed my main research question.

The interviews transcripts, observation notes, and documentation contents were analyzed using the six phases of thematic analysis proposed by Braun & Clarke (2006). I used ATLAS.ti, a computer-assisted qualitative data analysis software, to help uncover and systematically analyze complex phenomena hidden in the unstructured data collected. The program provides tools that let the user locate, code, and annotate findings in primary data material, to weigh and evaluate their importance, and to visualize the often complex relations between them (Lewins & Silver, 2007). Thematic analysis and its six phases proposed by Braun & Clarke (2006) are discussed in the next two subsections.

Thematic Analysis

Braun & Clarke (2006) defined thematic analysis as a method for identifying, analyzing and reporting patterns, or themes, within data. It minimally organizes and describes the data set in rich detail. However, it frequently goes further than this and interprets various aspects of the research topic. Riessman (2008) suggests that, out of all the approaches to narrative analysis (thematic, structural, dialogic/performance, and visual approaches), the thematic approach is the

most intuitive, however, not the easiest if conducted well. It is important to realize that the unit of analysis in thematic analysis is the complete narrative. The amount of attention given to context is very large, as the researcher is looking for a common theme, regardless of prior assumptions.

Thematic analysis is grounded in post-structuralism: a part of postmodernist thinking that “links language, subjectivity, social organization and power” (Richardson, 2005, p. 961). Per Richardson (2005), language is further deemed to be the “centerpiece” that produces meanings and creates social reality rather than reflecting social reality. Interviews with the case participant created language focused on information from the interviewee about her own experiences with and perceptions of IT. Observation notes created discourse based on what was heard and seen by the researcher during teaching sessions. Documentation provided text, audio, and graphic content rich in information to be analyzed. The six phases of thematic analysis proposed by Braun & Clarke (2006) were used to analyze all of the collected data.

The six Phases of Thematic Analysis

The six phases of thematic analysis proposed by Braun & Clarke (2006) were used for “identifying, analysing and reporting patterns (themes) within data” (p. 79). Using a computer-assisted qualitative data analysis software such as ATLAS.ti allowed me to undergo the six steps listed below. The final product of the thematic analysis is in narrative form and includes a reflection presented in chapter 4.

Becoming Familiar with the Data. During this initial phase, I collected and recorded all my data, keeping it in a secure computer file. I transcribed the data into written form.

Transcription of the data was critical to the reliability of analysis. I familiarized myself with the data by coding all data line-by-line and creating an initial list of potential codes.

Generating Initial Codes. The second step in thematic analysis is to group preliminary codes generated from the data set that have a reoccurring pattern. Coding is systematically organizing and gaining meaningful parts of data related to the research questions. Emergent codes were gathered and ordered with a description of representations of each code. The coding process was not linear but cyclical because other codes had emerged while moving between phases. Preliminary codes underwent changes as well. Codes were reviewed and collapsed until the point of saturation. That lead me to code categories, evident patterns, and eventual themes. Patterns, or themes, are composed of issues that repeat themselves.

Searching for Themes. From the data set collected in phase 2, I searched for meanings and patterns that are the themes. Here started the analysis of potential codes. I examined how the codes combined to form bigger themes in the data. I initiated a list of themes and focused on broader patterns in the data. I began considering how relationships were formed between codes and themes and between different levels of existing themes. ATLAS.ti was helpful in this step as it allowed me “to use visual models to sort codes into the potential themes” (Braun, 2006, p. 96). Collapsing codes (adding and deleting codes, combining codes that are similar, and changing wording) happened between phase 2 and phase 3.

Reviewing Themes. The fourth phase requires checking whether the themes support the data in order to fill any possible gaps in the analysis. Some considerations were in order: further collapsing themes and condensing themes into smaller units are examples. Having excessive overlapping themes may become problematic, as it can result in an invalid or implausible analysis of the data. Therefore, I identified how the themes were organized to tell an accurate story about the interviewee's experience. The absence of themes is also very noteworthy, as anticipated themes based on prior assumptions did not arise. The themes that emerged are discussed in depth in chapter 4.

Defining and Naming Themes. This fifth phase consists of analyzing the data within each theme. I examined how each specific theme was related to the complete picture of the data. I identified the elements of the data that I chose to capture and explained why they are relevant enough to be part of my analysis report. The definition and naming of the themes were and should be done in a few sentences. Naming the themes gives the reader a full meaning of the theme and its relevance. Extracting parts of the data (in my case, pieces of text taken directly from the transcriptions) to support the themes was crucial in order to analyze the data, thereby increasing the accuracy of my study.

Producing the Report. After reviewing the final themes, I began the process of writing the final report. I considered the stylistic options proposed by Stake (2005): "1) how much to make the report a story; 2) how much to compare with other cases; 3) how much to formalize generalizations or leave such generalizing to readers; 4) how much description of the researcher to include in the report; and, 5) whether or not and how much to protect anonymity" (p. 460). I decided on the themes that contributed to answering my research questions, remembering that research questions help guide the research and that other significant yet unexpected questions

may arise. In the writing of my report, I created a literary dialogue which connected each theme in support of the credibility rendered by my results. The analysis text contained extracts from the transcription as evidence to support the themes proposed to the reader. Member checking, which is feedback from the participant, helped me achieve greater accuracy in this final step. Peer review strengthened the composition of my report. Finally, the purpose of phase 6 is to deliver the complicated story of the data in a way that demonstrates the validity and merit of the analysis to the reader.

Summary

The thematic analysis report of my data is presented as chapter 4. Data analysis process from all three sources of evidence (interview, direct observations, and documentation) rendered findings rich in information. These findings attempt to contribute to bridging the wide gap in knowledge about TAs of French and their attitudes toward IT.

Situating Myself as a Researcher

Taking an inductive approach to this study requires me, as a researcher, to begin with a completely open mind without any preconceived ideas of what will be found. However, I have “a human personality...[that] is not formed in the field but has many years of conditioning behind it, including the choice of problems and of methods, even the choice of an academic discipline itself” (Yin, 2011, p. 13). I believe readers need to know my identity as a researcher as well as my role in this study because I am “a research instrument [who] bring[s] a particular lens or filter to [my] data collection process” (Yin, 2011, p. 270). In this section, I situate myself as a researcher by describing my own education as well as my personal and professional experiences and identify any advantages and problems these have created by using *currere*, a method invented by Pinar (1975).

Every good qualitative researcher has both a *declarative* and a *reflective* self. Your declarative self wants to tell the world what you know or have learned. Your reflective self needs to admit how you learned what you know, including possible reservations about your methods (of learning and knowing). Good qualitative research expresses both selves. (Yin, 2011, p. 264)

I have beginner's experience in qualitative method research through being a graduate student, learning from qualitative research methods courses, and conducting this present study. As a 28-year old doctoral student and language educator, I am a constructivist who believes that students acquire new knowledge through personal experience. My epistemological position asserts that students construct and constantly reconstruct knowledge and their realities by experiencing things and adding these new experiences to knowledge that they already possess. My objective in the teaching-learning process is to guide students to construct meaning so that they can create a new and broader understanding of the world around them. My role as an educator is to make use of students' prior knowledge, and expand upon it through socialization. I strive to provide my students meaningful contexts for them to apply their knowledge in a social environment. To successfully undergo this process, students must be proactive in how they learn, taking new information, and shaping it to their understanding. They are responsible for their own learning, rather than being vessels receiving and stocking information. As a learning theory, constructivism proposes an empowering role for the students and a challenging role for me, the educator, who must be aware that students have different needs when it comes to learning and that not all students understand things the same way. Through a constructivist lens, I see knowing as a process, rather than knowledge as a product.

Currere is a method invented by Pinar (1975), that encourages educators and learners to take on an autobiographical examination of themselves by remembering their past experiences, thinking about the future, and then analyzing the present. Pinar (1975) claims that this method "reduces the distance between the researcher and subject by making the researcher the subject

and allows for deeper and clearer understanding of the present by outlining the past, present, and future” (p. 1). Using the method of *currere* in the specific order proposed by its framework (past, future, and then present), I share my personal academic experiences within the historical evolution of IT in order to consider the changes that occurred in digital pedagogy over the past 28 years, according to my age.

Currere: Past

I remember using a computer for the first time as a little girl in the 1990s. My father, a professor and writer, was the only person allowed on the Macintosh computer in the house. When I was nice, he would let me type Word documents about anything I felt I needed to write. Sometimes, my sisters and I would use it to type and print letters to our cousins in Africa. This was the prelude to the use of digital technology in my academic life. In high school, I used diskettes to save compilations of information for papers and projects for my classes and printed pictures of world flags and maps for the international fair at the school. I also remember burning music on rewritable CDs for the dance group I was part of. I received pictures from family across the Atlantic Ocean on a tiny 80-millimeters wide CD. Then, in college, technology went to places I never would have imagined would concern me. I found myself using USB flash drives and a Dropbox to save essays and homework, completing mathematics and physics homework in a computer lab, and signing into another computer lab to take an exam by swiping my ID card. I earned my participation points in biology class by clicking on a tiny remote among 80 students in the class. I filmed a short movie on LSU campus as a French final exam. This was my experience with digital technology as an undergraduate student, and I still practice this pedagogy today as I am typing this dissertation using my laptop computer.

The very first curriculum and instruction course of my doctorate studies opened up a topic that has shaped my PhD research interest: IT for the French Classroom. The final paper that I wrote for this course, titled *Do We Need Technology to Teach and Learn?* (Ngandu Tshiebue, N.d), led me to the discovery of all the issues and possibilities that using technology in the French classroom entail. Four years later, my dissertation title is *The Attitudes of a Teaching Assistant of French toward Instructional Technology*.

During my six-year graduate career (Master's and PhD), I had the privilege of teaching several college-level French courses and supervising teacher candidates of French and Spanish through LSU's Geaux Teach Program (an undergraduate teaching certification program in which candidates earn a degree in their major while also earning a teaching certificate). Just as my personality, digital pedagogy from preparation to execution was interactive and full of color. My lesson plans were printed in color ink and on color paper for organization. My PowerPoint slides conveyed content with graphic images, sounds, and videos using the elaborate media system in the classrooms. (I should note that I was one of the lucky TAs who always ended up assigned in media-equipped classrooms each semester!) I frequently used the e-text version of the textbooks *En Avant!* then *Chez nous* for students to complete exercises in the classroom. Their chapter homework was due weekly online using the Pearson learning system *MyFrenchLab*, where the exercises are interactive, containing audio and video files, click-and-drag activities, oral recording exams, and digital flashcards. The students viewed their grades on Moodle, which calculates their total grade automatically. If I believed in multiple-choice assessments, students would have been relieved to fill *Scantron* sheets as quizzes, and I would have been delighted to simply feed the sheets to a machine to grade them. Teaching and supervising millennial college students has allowed me to experiment with several digital resources including online websites,

mobile apps, YouTube, social media, and various types of instructional software. Being a French TA required me to be a full-time student and teach college French simultaneously during each semester. To my benefit, this arrangement often gave me opportunities to take the beneficial digital resources that I was studying with my professors and use them with my students in my own classrooms.

Teaching French culture and communication using Web 2.0. My presentation on technology and culture at the 2015 Louisiana Foreign Language Teachers' Association (LFLTA) conference (Ngandu Tshiebue, 2015) is one element of my overall academic achievement as a graduate student. The presentation reported to fellow teachers the process of an experiment I conducted teaching a six-week French summer course using Facebook to build a social network just for my students and me.

The goal of this experiment was to test whether learning with computers and Web 2.0 would improve the efficiency of my students in French, especially regarding communication skills and cultural knowledge. I was partially inspired at the time by the book *Mindstorms: Children, Computers, and Powerful Ideas* written by Papert (1980). Using Papert's (1980) ideologies and methods, I examined the way my college students manipulated various technology and Web platforms while studying the French language and culture expecting improvement in digital communication efficiency in the target language. I taught two out of five class sessions per week in the Foreign Language Computer Laboratory, allowing me to teach three basic skills: listening, reading, and writing. I required the students to use Facebook in the target language for the entire summer session for various activities and to participate actively during four weeks of the summer session. I instructed the students to create digital products in the target language twice a week using Facebook during in-lab activities and as homework. Such

products included but were not limited to creating a social network page, creating a website, creating media literary writings such as blogs, wikis, and podcasts, creating digital art, composing and recording poetry, songs, movies, short clips, reality segments, documentaries, advertisements, or other art forms, critically analyzing PSAs and commercials, and playing computer or video games. There was no restriction on which sources students could use to complete their assignments. Students were allowed to use any online platforms and tools they wished as long as the final product or the hyperlink to the final product was posted on Facebook for access and grading. This free and unassigned openness in learning is similar to the practice of *tinkering* offered by Papert (1980) in his text.

Another goal of this experiment was to create a link between the textbook and the Web by transforming textbook exercises into creative and fun Web activities that would enhance my students' audio and writing skills, together known as communication skills. This was accomplished by completing music video activities using YouTube, reading and analyzing online text using the French newspaper *Le Monde*, and writing in French to real-life celebrities on Facebook.

This digital and cultural experiment was a journey of discovery for the students and myself. The experience of public pedagogy, an education that considers the application and development of educational theory beyond formal schooling, supplemented the students with popular culture beyond the geographical boundaries of the US, keeping in mind that many of those young adults had never traveled outside of their state. Students were able to use the grammar learned inside the classroom to communicate with real people inside and outside of the classroom. Writing to real people on Facebook pressured the students to improve their grammar. Students learned digital and social network lexicon in the target language. This experiment

opened their minds in a creative way that they will remember forever, as they were able to keep the products of their “powerful ideas” (Papert, 1980) on their French Facebook pages. Further discussion on students’ results and reactions is found in the literature review.

My experiences with digital technology expanded my knowledge in both teaching, learning, and using digital technology. On a personal note, I have gotten acquainted with unique groups of students and learned what they like to study, what challenges they face in their higher education programs and their lifestyles, and how they prefer to learn. The greatest lesson that I have learned regarding digital technology is that, as long as it continues to evolve and offer new modes of teaching and learning, the educational possibilities are endless.

Currere: Future

SMART (2014), creator of the SMART interactive board, states: “We look forward to the next 20 years of innovation, so we can continue to change the way the world works and learns” (para. 1). This statement makes me wonder what second-language education will look like in the next two decades. Should I, as an educator, be as enthusiastic as the SMART (2014) brand regarding the way we’ll teach and learn using newer technologies in twenty years? *Should* the “way the world works and learns” (SMART, 2014, para. 1) change in the next 20 years? I do look forward to seeing the future advancements of digital pedagogy, and I am open to learning and mastering the upcoming innovations only if they can enrich my teaching and learning experiences. My wish is to continue researching the value in teaching SLA using digital technology, not necessarily to choose a side (traditional vs. digital) and commit to it, but to see possibilities when merging the two. My next step is to explore how other educators in the field of French education feel about IT so that I can identify what my positionality is within that specific group.

Currere: Present

As a doctoral student working on my dissertation research, I find myself using technology every day. All of my experiences with digital pedagogy have resulted in me obtaining a Digital Pedagogy Fellowship, ongoing at the time that I am writing this chapter, which allows me to gain more ideas and methods and gives me the opportunity to engage theoretically and practically with digital pedagogy, making me a well-equipped professional in my field of French Education. I am very enthusiastic about using technology to teach and learn; however, I am skeptical about adopting digital pedagogy as my sole practice of education and forsaking traditional education like several schools in the US are doing nowadays (Kratsas, 2016). My reservations are tied to the potentially detrimental impacts of the digitization of education and include digital divide, digital use divide, compulsion to be on the cutting edge of technology because of its newness, plagiarism, overuse, game mentality, privacy and safety risks, standardization of curriculum, and standardized testing (Ngandu Tshiebue, N.d). Today, overshadowed with doubt on the matter, I still ask myself how much technology is too much and whether there is a minimum of technology necessary to teach and learn.

Trustworthiness

Yin (2011) proposes three objectives for building the trustworthiness and credibility of a qualitative study: transparency, methodic-ness, and adherence to evidence. Firstly, in order to be “transparent” (Yin, 2011, p. 19), I described and documented my qualitative research procedures in the methodology chapter in a way that other people can be able to scrutinize my work and the evidence used to support my findings and conclusions. All data is available for inspection for any person that wishes to undertake such an examination. I expect the scrutiny on my work to result in criticism, support, or refinement (Yin, 2011). Secondly, I was being “methodic” (Yin, 2011, p.

19) by following an orderly set of research procedures proposed by Yin (2014) in seven steps specifically for qualitative case studies (see section “The Case Study Research Design” on page 67). I also sought to avoid unexplained bias or deliberate distortion while carrying out the research by explaining my level of involvement. Being methodic also implied that I brought a sense of completeness to a research effort on TAs of French and their attitudes towards IT. Thirdly, my research is based on an explicit set of evidence to which I had to adhere (Yin, 2011, p. 20). Because this study seeks the participant’s description of her own attitudes and beliefs towards IT, the evidence consists of her narrative (through interviews) as well as the context in which her narrative is expressed. That is why her narrative “is valued as the representation of reality” (Yin, 2011, p. 20). In addition to her narrative, the evidence consists of her behavior (studied under observations and documentation). “[P]articipants’ words are viewed as “self-reports” about their behavior. The words cannot be literally accepted but require further corroboration, for instance, to determine whether or not the behavior actually occurred” (Yin, 2011, p. 20). Appropriately, the conclusions of this study are drawn in reference to the evidence collected.

Because I took an active role in the collection and interpretation of the participant’s meaning-making, I must decrease threats to credibility. To do so, I employed three strategies: triangulation, member checking, and peer review. According to Stake (1995), triangulation allows researchers to understand their research from their participants’ perspective, rather than impose their own assumptions by using at least three sources of data. The triangulated data that I used to confirm emerging findings are interviews, observations, and documentation. To undergo member checking, I requested the participant to check emerging findings and my interpretation, and then provide feedback about my work. During member checking, I kept in mind that “[t]he

procedure of having participants provide feedback about [my] work...can create unforeseen obstacles” (Yin 2011 p. 97), such as compelling me to adapt my original plan. Lastly, I requested peers who were “well informed about the substance or methods in [my] study...or who, alternatively, just have a keen analytic sense or a critical eye for [my] work” (Yin, 2011, p. 275) to review my composition. Reviews were provided in written and oral forms. Having peers provide feedback led me to revise and rethink my composition while maintaining my confidence. Requesting peer review inevitably strengthened this study.

Transparency, methodic-ness, and adherence to evidence (Yin, 2011) were inevitable for building the trustworthiness and credibility of this study. Triangulation, member checking, and peer review (Stake, 1995; Yin, 2011) served as a way to strengthen the credibility of this study. Together, these elements aimed to help readers to judge the trustworthiness of this case study report.

Conclusion

The theoretical foundation, reliable nature of the data chosen, and specific character of the case provided for a rigid methodology for this study. The questions, evidence resources, and the priorities for data collection and analysis all addressed the contextual factors of the research topic. The intrinsic case study research design allowed me to focus on understanding the clearly defined issue of TAs of French and their attitudes toward IT by obtaining a holistic and real-world perspective. The theoretical framework integrating Davis’ (1986) TAM and the six phases of thematic analysis proposed by Braun & Clarke (2006), all the while considering my positionality as a researcher, explained the key factors, concepts, and variables that were studied and the presumed relationships among them. Together, the three protocols helped guide me as a researcher through the entire process of collecting the data. Because language is deemed to be

the “centerpiece” that produces meanings and creates social reality rather than reflecting social reality (Richardson, 2005), narrative took an important place in both the collection and analysis of the data. This study rendered findings rich in information that are presented in Chapter 4. In Chapter 5, I offer implications and recommendations based on the results of this study in an attempt to bridge the gap in knowledge about TAs of French and their attitudes toward IT.

CHAPTER 4: FINDINGS

After systematic examination of all data gathered from interviews, observations, and documentation, several findings emerged regarding the attitudes of the participant toward instructional technology. The purpose of this chapter is to summarize findings obtained from this investigation. Before summarizing findings, however, it is necessary to look back at the questions that helped guide the research: (a) What are the personal experiences of a TA of French at a southern US public university with technology prior to, during, and after her assistantship? (b) What are the internal beliefs, attitudes, and intentions of a TA of French regarding the importance and implementation of IT? (c) In what ways does a TA of French implement the IT instruments and resources that are accessible to her in the course that she teaches over the period of a semester? (d) What are the PU and PEU of these instructional technologies according to a TA of French? While keeping in mind the questions that helped steer the research process, three themes surfaced. These themes align with the components of Davis' (1986) TAM model, specifically External Variables, Attitude Toward Using, and Actual System Use. The following table displays how themes were generated according to the code categories that were crafted from each code. The number of instances for each code represents the strength of the relevance of those codes.

Table 4. Themes, Code Categories, and Codes

Themes	Code Categories	Codes and Number of Instances for Each Code
Theme 1 - External variables that influenced the participant's decision about how and when IT would be used are pedagogical goals, access to IT resources, and digital readiness	Pedagogical goals	Teaching culture (18)
		Providing contextual information about the lesson content (7)
		Authenticate lesson content (18)
		Making connections (12)
		Making comparisons (3)
		Teaching students how to use IT for learning French (10)
	Access to IT resources	Access (9)
		Money (1)
	Digital readiness	Technological efficiency (2)
		PEU - Perceived ease of use (9)
TA training (10)		
Theme 2 - Charlotte felt an intellectual and emotional attitude focused on student learning and making the TA's job easier when experiencing with IT	Attitude on technology and IT in general	Attitudes, beliefs, and feelings toward IT (21)
	Attitude focused on student learning	Helps engage students to the lesson content (3)
		Social media (6)
		Regulation of IT use by students (10)
	Attitude focused on making TA's job easier	IT helps make TA's job easier (4)
		IT helps TA save time (3)
		Pitfalls of IT (9)
Theme 3 - Charlotte's actual system use was skilled, frequent and targeted toward pedagogical objectives in the French courses	Actual System Use by Charlotte	Specific IT resources used by Charlotte (15)
		Moodle (3)
		Music / song (14)
		Instructor-student communication (6)
		No IT required (2)

Note. This table presents the themes that emerged from codes that were grouped into code categories. Code instances in parentheses are the number of times they appear in the data.

What the participant believed and accepted as true and valid and my interpretation of her words and actions involving IT constituted the space where themes emerged after analysis. The three overarching themes that emerged from this investigation were (a) *pedagogical goals, access, and digital readiness influenced the participant's decision about how and when IT would be used*, (b) *an intellectual and emotional attitude focused on student learning and making the TA's job easier*, and (c) *Actual System Use was frequent and targeted toward pedagogical objectives in the French courses*. Prior to explaining each theme in detail, the many traits that make-up the profile of the participant are presented to better understand her words and actions.

Charlotte's Portrait

Charlotte's portrait is composed of information that emerged from the data and is an important part of the scope of the study. The presented characteristics of the participant are based on her professional and academic background, past and present experiences with IT, digital readiness, expectations of future experiences with IT, and relationship with me as a researcher. Information that would reveal her identity has been omitted in respect of anonymity.

From 2010 to 2013, Charlotte had been a TA at a northern US public urban research university, from which she earned her master's degree in translation and French literature. Since, 2013, it was Charlotte's fourth year being a TA at the institution where the study was conducted. Her major as a doctoral student was French and Francophone literature with a minor in comparative literature and gender studies. She was in the process of writing a dissertation. After graduating, Charlotte aimed to become a professor of literature, although she also enjoyed teaching language.

During the spring semester of this study, her role as a TA was to introduce students to different types of French and Francophone literature in general. Students read texts such as

Stupeur et Tremblements (Nothomb, 1999), *Une tempête* (Césaire, 1969), and *Ourika* (Duras, 1995). She instructed students how to analyze text, how to use their analysis in writing, how to approach different types of analysis, and how to read different types of text for different purposes. In the summer term of this study, her role as a TA was to teach structures and lexicon of French with additional emphasis on reading and writing, while guiding students to explore the cultures of Francophone peoples around the world.

Charlotte's past experiences with IT began in her childhood in Western Europe. The first time she saw a computer was in the late 1980s. At that time, she felt it was all about gaming. She began to understand that a computer could be used for learning around 1988. She learned French and English using books and paper dictionaries. She explained, "At that time, you couldn't even imagine that it could be done any other ways so it took you about 10 minutes to find a word."

Charlotte received a bachelor's degree in teaching from a pedagogical university located in her country of origin. She was tutoring and conducted private lessons where she never used technology, except to find and print exercises from Internet websites and show movies on DVDs. In 2010, at the age of 30, Charlotte enrolled at a northern US university as a graduate student. She took an introductory course in teaching in which technology integration was a great part of the course. There, she learned about IT tools such as Prezi, glogs, Microsoft PowerPoint, Microsoft Word, and YouTube. She received extensive training from this experience, as she and fellow scholars explored IT and learned how to use IT from each other. She remembered, "We had to record ourselves at least two times per semester and then write a review, and then discuss it with the teacher, which was embarrassing at the time, but this gave me confidence right now." Furthermore, Charlotte's experience with IT during her master studies included creating two living alphabets: one in Russian and one in English. The living alphabets are an interactive

learning program that allows learners to click on a button to hear Charlotte's voice telling them how to write letters. Additionally, Charlotte created online grammar exercises for French learning and Russian learning. These exercises are available for students on the website of that institution.

During her assistantship as a doctoral student, Charlotte spent two years holding an administrative position. She created a website for a professor. She asserted, "I was able to fully engage with that technology. I used the cameras and the live streaming tools from the library." This experience, along with continuing to use the technological skills she had acquired during her master studies into her doctoral studies, helped Charlotte gain digital readiness. Charlotte found herself technologically proficient in the sense that she was skilled at using IT resources and learning how to use new ones. She stated, "I cannot write a code, but I can create a website. So, if you ask me, '5' would be creating codes and making software. I cannot do that. And if '4' would be knowing how to operate it and learning as I go, and actually enjoying it, then that would be me."

Charlotte expected her future experiences with IT to include teaching digital humanities. During the interview conducted for this study, she expressed,

I would really like to be involved in teaching digital humanities. But my role would be about how to make it attractive to people and not scary. I like the whole idea of digital humanities. But that for me feels way ahead, and I look at that and I freak out, thinking, "well, what can happen?"

There were three specific instructional technologies that Charlotte would like to explore in the future. First, she was considering recording herself teaching a lesson to apply for jobs after earning her degree. This would require manipulating a camera in the classroom to film herself teaching. Second, she would like to interview a guest from afar on Skype for the sake of her students' learning. This event almost happened during my study. Charlotte wished to interview

her former professor, who is originally from Iran, because the class was reading *Persepolis*, a graphic autobiography by Iranian author Marjane Satrapi (2000). Unfortunately, Charlotte was not able to invite this professor in advance. Charlotte stated, “I am kind of intimidated to do that.” Third, Charlotte desired to have a Smartboard in her classroom as a permanent instructional tool. She felt that having this tool would be a gateway to more interactivity with the content, for herself and for her students. She expressed,

If I could have that, that would be awesome because I could do so many more things with that board. I wouldn't have to erase right away, I could show some things, like if I were playing a movie, I could [pause and] circle [some things] right there. There are all these extra things. I imagine that there would be a way to take a quiz. Say, students have a computer and they could quickly test something.

The final part of Charlotte's portrait concerns her relationship with me as a researcher. Charlotte and I are former colleagues, which allowed us to have open and honest conversations regarding pedagogical topics in which we both are interested. During the study, Charlotte was never afraid of asking my opinion, which I had to refrain from giving for the purpose of objectivity. She asked questions such as,

“I wouldn't mind if you have any comments about my use of IT. Do you think I overuse it? Do you think I underuse it? Do you think there were certain things that I was using wrong? Or is there a certain kind of tool that you think I should be using but I don't?”

While her questions were telling in how she viewed technology, for the purpose of this study, I made her understand that “I do not have any judgement at all, but from my personal point of view, I think you're doing great!” There was a particular day on which we had scheduled an observation. Before the lesson, she mentioned to me that she would be using only pen and paper, and was concerned about my expectations to see IT. I assured her that I was merely an observant and that not using IT was as relevant to my study as using IT. Prior to and throughout the study, I recommended IT resources that were relevant to her pedagogical goals.

Charlotte is a unique individual who loves to teach language and to watch students learn, with or without IT. She is a complex human being who has an origin, a story, and feelings. I have observed that she did not hide herself from her students and was always open to sharing her personal ideas and opinions with them. This was especially true during class discussions in French 2155, which was a class that required reflection and analysis.

Theme 1: Pedagogical Goals, Access, And Digital Readiness

Pedagogical goals, access, and digital readiness influenced the participant's decision about how and when IT would be used. This theme aligns with Behavioral Intention to Use, which is a measure of the strength of one's intention to perform a specified behavior (Davis et. al, 1989). Charlotte's intention to use IT depended on the pedagogical goals she had set for each lesson. She used the IT tools that were accessible for the sole purpose of reaching the targeted lesson objectives. Throughout my observations, Charlotte demonstrated digital readiness while integrating IT in her lessons. Ultimately, having access to IT tools that would help reach specific pedagogical goals and knowing how to use these tools proficiently influenced her intention to use IT in her lessons.

Pedagogical Goals

Pedagogical goals are the lesson objectives that Charlotte would set before teaching each class. Goals depended on the lesson topics and the desired outcome of student learning from these lessons. When using IT, she held a justified PU (the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context (Davis et. al, 1989)) of the tools that would help reach her pedagogical goals. This section describes three pedagogical goals that were reached while using IT: (a) making students familiar with French and Francophone culture, (b) making connections

and comparisons between elements in the lesson content, and (c) teaching students how to use IT for writing in French.

Students Became Familiar with French and Francophone Cultures. During the face-to-face interview, Charlotte explained that she learned how to teach culture with IT and props as a TA during her master studies. TAs of all languages were required to attend a class completely in Farsi where the professor used IT and props to teach culture. From this specific experience, Charlotte understood that using IT and props was the most successful way to teach culture to students. She expressed, “I feel that songs, movies, and cheese is all part of [the francophone] culture. Culture should not be taught by the textbook. Culture is something that should be taught by props, music, exposure, or by touching something.” Charlotte taught culture for three purposes: (a) as part of the curriculum, (b) to provide contextual information about the lesson content, and (c) to authenticate lesson content.

Teaching Culture as Part of the Curriculum. Charlotte taught culture extensively, as required by the course description of both courses. Culture was infused in many parts of her lessons, mostly suggested by the texts that she was using. While teaching the language course, there was a textbook section centered on the culture and geography of Maghreb, which is a major region of northern Africa that consists of five main countries: Morocco, Algeria, Tunisia. Charlotte used maps found online to help students situate the countries. The class listened to *rai* which is a form of Algerian folk music. They also watched a short video clip about henna and marriage in Morocco. Finally, using the projector, Charlotte showed some monuments and places of interest that one can visit in Maghreb while students were answering the questions in the culture section of their textbook. Adding music and videos to the textbook content enriched and ensured students’ familiarity with the culture of Maghreb.

Providing Contextual Information About the Lesson Content. While teaching the literature course, it was necessary to provide students contextual information about the text that they were reading. Integrating YouTube videos played a remarkable role in providing information that helped students understand the context of their reading content, which they may have not grasped by solely reading the texts. Most of the YouTube videos were in French to remain in the target language.

When students were learning the graphic novel *Persepolis* (Satrapi, 2000), I observed the class viewing *Histoire Politique Iranienne: Du 16e Siècle aux Années 1980* (Politiques Energétiques, 2016a). This video gave information on the history of Iran from the 16th to the 20th centuries. The content of this video helped students understand better the historical events narrated by the author. During the same lesson, the class viewed *Iran: Organization Politique Récente et Relations Internationales* (Politiques Energétiques, 2016b). This video gave additional information on the recent political state of Iran. This allowed students to develop further understanding on present-time Iran politics. Charlotte stated to her students that the latter information was not essentially related to the text, but was for their personal education.

During another lesson centered on the same graphic novel, the class was discussing the main character's experience of the imposition of the veil on women in Iran in 1980, the year after the Islamic Revolution. I observed the class viewing *Iran (Sabrina) | 100 Years of Beauty | Ep 3* (Cut, 2015). From this video, students saw the continuing change of beauty standards in Iran from the 1910s to the 2010s. Students saw the drastic change in beauty standards since the imposition of the veil in 1980. They also noted that minimal freedom in the wearing of the veil developed over time since the 1980s until today, such as color, and the position of the veil on the head.

During that lesson, students learned about the morality police in Iran, which was the main agency task enforcing Iran's Islamic code of conduct in public. Discussion on the text continued as one student asked Charlotte if the “morality police” in Iran still existed. To expand on the political context as well as the conversation, Charlotte presented an online news article titled “En Iran, une Application Contre la Police de la Morale” (Macherel, 2016) found on the news website Tribune de Genève. There was a video embedded in the article. It was an advertisement for the Iranian app Garshad that allows users to avoid “the moral police” in traffic. Presenting this news article provide a larger context for students to understand better the graphic novel and authenticated some elements of the story. Authenticating lesson content is another way that IT helped students become familiar with French and Francophone culture.

Authenticating Lesson Content. During both courses, students were exposed to many cultural facts. Showing images, videos, and websites helped to authenticate the cultural facts by bringing them to life and making the information trustworthy and up-to date. During the face-to-face interview conducted for this study, Charlotte explained her reasons for authenticating text content in the literature course:

Because the text is based on real-life events, showing those events enriches their reading so much. And I feel that without showing them what I showed them, it would really lack depth. So, in that sense, I feel that technology allows and invites that depth. It also facilitates understanding of certain things that they are learning. Plus, you know, it’s not in English, it’s in French, so I see how they can miss certain things. [The] different kinds of resources available [can] help them fill-in those blanks that they may have.

Google Images and Google maps were used to show students visual evidence of elements they read from the texts. I often observed Charlotte showing pictures of authors, maps of where the authors were from, as well as maps to show the locations where events in the texts have occurred.

To begin the lesson on Maryse Condé's (1999) autobiography *Le Cœur à Rire et à Pleurer*, Charlotte shared background information on the author. When discussing the home region of the author, she asked students, "where is Guadeloupe?" Students did not know the answer, therefore she researched a map of Guadeloupe on Google Map. From that map, students could see that this region of France was an island located in the Caribbean. Charlotte used Google map again, to show students where the Sainte Chapelle church was located, which was a place mentioned in Condé's (1999) text. Later during the same lesson, Charlotte relied on Google images to show students a picture of the Versailles castle, which was another place mentioned in the text. Students were exposed to authentic material that confirmed Condé's (1999) autobiography.

There were instances where Charlotte played YouTube videos in order to authenticate text content. As one specific example, she played the movie trailer of and a scene from *Merry Christmas Mr. Lawrence* (Oshima, 1983), which is a movie mentioned by the narrator in the novel *Stupeur et Tremblements* (Nothomb, 1999). In consequence, students could realize that the movie mentioned by the narrator was a real movie, and discern a connection between the plot of the movie and the plot of the text.

Charlotte taught *La Photo d'Identité* by Leïla Sebbar (1996). She played fragments of documentary *La Guerre d'Algérie* (Classpam, 2012) before discussing the short story. Students picked-up information from this documentary to figure out the way of life of Algerians at the time of the story, especially regarding city-life vs village-life and native-born Algerians vs. French colons. The testimonies of the interviewees gave authenticity to the content of the short story and the class discussion that ensued.

In the short story, Sebbar (1996) mentioned Marc Garanger, a real photographer who took pictures of unveiled Algerian women in 1960. Charlotte showed students YouTube video *ALGERIE – Les Auschwitz de la France en Algérie* (VVSDCN, 2007), which described the atrocities in the concentration camps set up by the French in Algeria during the colonial occupation. In this video, students could see and hear a testimony from Garanger describing his experience in the concentration camps and denouncing the atrocities that occurred. To reinforce authenticity, Charlotte went on the Time magazine's website where the picture collection *Femmes Algériennes 1960* by Garanger (1960) is displayed. While viewing the pictures, Charlotte opened a discussion based on what students saw and what meaning could be deduced from the details of these pictures. The class discussed why these women were unveiled, what was seen once unveiled, and why they were wearing tattoos and jewelry under their veil. Furthermore, Charlotte went on the website Culturebox (the culture website of the online news platform France Télévisions). From this website, Charlotte played an unsettling video of the women photographed by Garanger in 1960 being photographed 43 years later by Garanger again. Watching this video contributed to further class discussion by bringing up the question to whether Garanger was a hero or a villain.

Adding images, videos, and consulting websites during instruction allowed students to be exposed to evidence that compelled them to hold a realistic perspective on the themes presented in their reading. Authenticating lesson content while teaching culture was achieved to bring the texts to life and complement student learning. It also perpetuated class discussions related to the readings, in which students could express themselves in the target language.

Students Found Connections and Made Comparisons Between Elements in the Lesson Content. Charlotte often included videos, films, and images to expand students' learning. This was especially the case in the literature course, where finding connections and making comparisons between elements helped students to make sense of the texts that they were reading. Students manifested their understanding through discussions guided by Charlotte, either in the form of class discussions or small group discussions.

Charlotte presented a short YouTube video of Gwo Ka street dancing titled *Gwo Ka Made in Pointe a Pitre (Guadeloupe)* (Natychrys, 2007). After viewing the video, she explained the dancer-drummer relationship and then told her own experience of Gwo Ka when she traveled to Guadeloupe. By watching how this street dance is performed, student made a connection between seeing and hearing the dancing and reading about it in *Le Coeur a Rire et a Pleurer* (Condé, 1999).

While learning *Stupeur et Tremblement* (Nothomb, 1999), Charlotte showed segments of the film version of the novel. The film was available on Amazon Video as *Fear and Trembling* (Corneau, 2003). Because the story is about a Belgian character living in Japan, the narrator of the movie spoke French and the other characters spoke Japanese. All subtitles were in English. Charlotte played a short extract from the movie version of the novel at a specific moment that explains the meaning of the title of the book. The class held a discussion connecting that specific movie scene and the title of the novel, then, compared the overall differences between the film and the novel. Students continued to watch segments of the film. Charlotte verified the students' understanding in between segments by asking guiding questions. Students answered these questions among themselves in groups.

Using film to expand the learning of a novel was a pedagogical goal that Charlotte reached several times. Using Amazon Video, Charlotte showed segments of the animation film *Persépolis* (Satrapi & Paronnaud, 2007). Students established a comparison between the animation film and the graphic novel. Students specifically recognized differences between cartoon elements in the colorful animation film and the black and white novel. Through discussion, students established that adding color to the film version added another dimension to the understanding of the novel version of the story.

Charlotte relied on Google Images to help students compare images, as well as finding connections between themes in the lesson content. Using Google Images, Charlotte showed students where Satrapi (2000) gained inspiration for writing and drawing *Persepolis*. She showed students pictures of graphic novel *Maus* (Spiegelman, 1986). Students could visually make a connection between the works of Satrapi (2000) and Spiegelman (1986), therefore understanding where the author's inspiration came from.

Charlotte taught students to understand the relevance of the book cover of *Persepolis Tome 3* (Satrapi, 2002b). She showed students a picture of the book cover and then a picture of the famous painting *Bonaparte Franchissant le Grand-Saint-Bernard* (David, 1801). Students easily established a visual comparison between the book cover and the painting by telling that the position of the soldier and the horse are the same on both covers. However, Charlotte had to push students to think critically about the deeper meaning between the two images. She superficially explained to students that *Persépolis Tome 3* (Satrapi, 2002a) was the story of Marjane living in Europe, where Napoleon was a great historical and political figure.

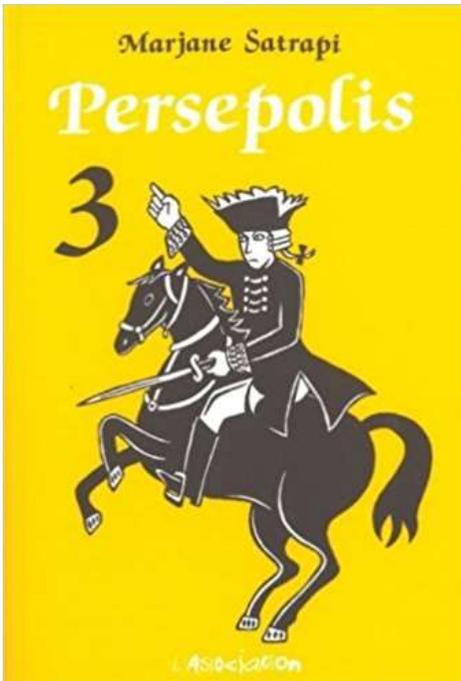


Figure 4. Persépolis Tome 3. Adapted from “Persépolis, Tome 3,” by Satrapi, M. (2002b).



Figure 5. Bonaparte Franchissant le Grand-Saint-Bernard. Adapted from “Le Premier Consul Franchissant les Alpes au Col du Grand-Saint-Bernard,” by David, J. (1801).

The examples given above are the results of my observations where Charlotte was the person manipulating IT to stimulate students’ learning outcome. The next section discusses how Charlotte taught students to use IT on their own for learning French.

Students Used IT for Writing in French. The syllabus for the literature course stated, “Typing full sentences into online translators will likely yield incorrect (and sometimes humorous) results; it also qualifies as an unethical use of a source.” During an informal interview, Charlotte expressed to me that she was greatly concerned with helping students to write essays in French without cheating. During an observation, Charlotte shared with students a document that she compiled herself about how to use Internet resources to improve writing and not cheat. The document included instructions on how to use www.google.fr for searching French constructions (phrases and expressions) and check their idiomaticity. On this document, she introduced some online dictionaries (www.wordreference.com and www.linguee.fr) that could help to understand how to use these words and in which contexts. Lastly, she explained how to use online dictionaries of synonyms to avoid repetitions. During the face-to face interview, Charlotte explained, “I always tell the students that, I use those tools myself.”

I observed Charlotte teaching an entire class lesson on how to use online tools to write better, specifically to produce original writing with minimal errors. Students were required to bring their laptops to class on that day, so that they could practice researching these resources as she was presenting them. This lesson was in preparation for the writing and submission of their upcoming essay.

Charlotte exposed her students to ways of choosing words that fit the ideas they were conveying in their essays. During an informal interview, Charlotte explained that this was very useful to them for expressions that they could not translate literally. She discussed this further during our face-to-face interview, “my students translate [their writing] from English [to French] (especially when I look at their work) it’s pretty obvious to me.”

The following table describes the resources that Charlotte taught during the lesson. It also includes online resources that she had posted on the Moodle platform for the class. These resources helped students think about the context in which idiomatic phrases could be used, give dimension to their writing by avoiding repetition of words, properly cite and reference their text resources in MLA style, and avoid vocabulary and grammatical errors.

Table 5. Online Resources for Writing French

Resource type	Website address	Purpose
Online dictionary	www.wordreference.com	To look up word definition(s), synonym(s), and translation, to see examples of expressions and complete sentences that contain the word
Online dictionary	www.linguee.fr	To look up word translation within various context, to see examples from text published on the Internet
Research engine	www.google.fr	To look up specific text typed inside quotation marks to find how this word sequence has been used in published text on the Internet
Research engine	www.yahoo.fr	To look up specific text typed inside quotation marks to find how this word sequence has been used in published text on the Internet
Synonym online dictionary	www.synonymes.com	To find alternate words that have a similar meaning, to find antonyms
Bibliography generator	www.easybib.com	To cite a book in MLA and create a reference list
Book seller's website	www.amazon.fr	To verify and confirm book reference details so that readers of the essay can find the pages easily due to the various editions available
Learning Management System	www.moodle.org	To view the possible essay themes proposed by the instructor, to submit the final draft of the essay
Grammar and spelling checker	www.bonpatron.com	To catch basic errors commonly found in conjugation and grammatical agreement
Online writing lab	https://owl.english.purdue.edu/owl/resource/747/01/	To verify formatting issues

(Table cont'd.)

Resource type	Website address	Purpose
Handout : <i>Codes pour faire les accents</i> (this means <i>codes to type accent marks</i>)	n/a (posted on Moodle)	To view the keyboard codes for typing letters that contain accent marks
Language command in Microsoft Word	n/a (component of Microsoft Word)	To set the language in French so that proofing tools such as spell check can function in French

Through my interviews, observations, and documentation, I have seen Charlotte reaching the pedagogical goals that she had set, with the help of the many IT resources that she had researched and used. These three goals were (a) making students familiar with French and Francophone culture, (b) making connections and comparisons between elements in the lesson content, and (d) teaching students how to use IT for writing in French. She had set these goals according to the desired outcome of student learning.

Access

Access influenced Charlotte’s decision about how and when IT would be used. She used the IT tools that were accessible for the sole purpose of reaching the pedagogical goals that she had set. Data indicated that there were tools that Charlotte had access to, she desired to have access to but did not, and purchased with her own means to access them.

During the face-to-face interview, Charlotte described that TAs had a multimedia podium in every room where they teach. She expressed, “As of now, I have all the technology accessible to me that I can use. I love [the] podiums that we have. Podiums are a pretty awesome thing.” Charlotte stated that she knew what IT tools were available in her classrooms, which were a computer, a screen, an overhead projector, and Internet. In her office, there was a computer, her personal laptop, and a printer. She also mentioned that there was a scanner in the main departmental office. She stated,

I feel that whatever is accessible to me, I use all of it. But I mean, so, the computer gives us access to the Web. So, I use the Web. I feel that if we had a smartboard, that would take me to another level.

Charlotte desired to have a Smartboard in her classroom permanently. She expressed, “if the library had a few of those boards, I would like to order this board in my classroom for the whole semester.” She stated that the department had two Smartboards,

I cannot teach in them because there are only two [of them] and if I don’t get scheduled in them, there is no access for me there. Right? And I was not able to access them at all...The Smartboard is kind of accessible but not really.

Although she complained about not having access to the Smartboards, she did not blame this phenomenon on anyone. She expressed, “But it also has to do with money. Right? We can’t do certain things.”

Lastly, there were movies that Charlotte showed her literature class that she had to purchase herself from Amazon Video. I asked her why she showed *Fear and Trembling* (Corneau, 2003) and *Persepolis* (Satrapi & Paronnaud, 2007) with English subtitles. She explained,

I couldn’t do anything about that because these were the only versions that were accessible to me online. If I were maybe to order a DVD, maybe [subtitles] would be in French. But also, these are [unpopular] movies for which I would have to probably make a special request.

Charlotte appreciated the IT tools that were accessible to her as a TA. Being able to access these tools influenced her decisions about how and when to use them. Charlotte aspired to have access to other tools in the future. She showed intention to reach her pedagogical goals by purchasing movies to be viewed by her students.

Digital Readiness

During the study, data suggested that Charlotte held a digital readiness, which required the fusion of digital skills and trust. Charlotte manifested the skills necessary to manipulate online resources, surf the Internet, and share content online. She also displayed a belief about her capacity to determine the trustworthiness of information online and safeguard personal information. She was confident in the technological proficiency that she had developed while manipulating the tools that she used. She asserted, “What I have right now, I feel that I have explored it enough.”

Charlotte explained that TA training was an important part of gaining digital readiness. She also expressed a desire to learn more IT tool, “I feel like I'm using the tools that I know, but I don't feel like I'm learning more.” She stated that as a TA, she had received minimal training from the institution where the study was conducted. She expressed,

I feel that as a department, we need a more extensive training both on technology and how to teach with technology...Also, we don't have necessary IT student support (or if we have it we don't promote it) ... [We were trained on] how to use the online component of the textbook. The publisher did training on how to use the technology that's pertinent to the textbook. Before the start of [each] year, the publisher comes in and do that...Smart Board was installed, we had training. It was once.

Charlotte also described how skilled she was at learning new tools, “[when] I get access to a new tool, I acquire [the skills to use it] pretty quickly.” This statement suggests that Charlotte held a PEU for each tool that she used.

PEU. Charlotte integrated IT tools that were easy for her to use. When asked how easy she perceived the overall IT that she used to teach, she responded, “They're easy [for me] because it's a habit. And I made it my habit.”

During the face-to-face interview she stated,

I like using Microsoft Word to organize a lesson. [It is] easy to use because I made them part of my lesson planning and my teaching. [It] took some time getting used to, [and I] cannot live without it right now.

During the same interview, she also described how easy it was to administer the literature course midterm on Moodle,

Another thing that I implemented this semester that I had never done was that the midterm was fully online. It was not that difficult. I thought it was going to be such a pain to set up and it's not at all. I went to the [inaudible], she showed me how to do it on Moodle and I did it all by myself, then I came to her and I showed her what [the students] did. And it was all cool and nobody had any technical problems. It was multiple choice [and] reading. They had to download certain things, and then there was [a] matching [section].

During an informal interview, Charlotte shared with me that when she plans to use technology, the preparation is stressful because it takes extensive research to find a precise media that students will understand, and that will tie into the lesson content. She also shared a concern about the time consumption that it takes to verify that all online materials will function properly on the day of the lesson. However, she asserted that doing so repeatedly makes the task easier overtime. In an email interview regarding the language course, she stated,

The only problem is that I have to do all of the exercises myself [first] to make sure all links work, do it correctly, and then check [the] grammar [so that] students won't be too lost in the vocabulary. A bit time consuming, but getting easier as I am doing for the third time now.

Charlotte manifested digital readiness during the actual use of the digital space. She was technologically proficient while using IT tools. She understood that using a tool several times helped develop technological proficiency with that specific tool. She knew this from her experience with IT.

In conclusion to Theme 1, pedagogical goals, access, and digital readiness influenced Charlotte's intention to use IT. The IT resources that she had researched and used helped her to

reach her pedagogical goals. As a TA of French, she had access to IT tools that she appreciated having. She desired to use IT tools that she did not have access to and purchased digital media with her own means when needed. Finally, Charlotte showed digital readiness when using IT.

Theme 2: Attitude Focused on Student Learning and Making the TA's Job Easier

Charlotte's general attitude toward IT is one of embracing and fear when it comes to student learning and making her job easier. During the face-to-face interview, she expressed,

I feel that have a pretty serious engagement with technology in general...My personal belief is that [teaching with IT] should be done and I don't think there's a way out of it. And I feel that [it is because of] how we're surrounded with technology right now.

During the same interview, she stated,

I feel like, in some ways, technology is so attractive, and it makes our lives so easy. On the other hand, it's so scary and so time involving that you don't know exactly how you can benefit. And I feel that I would really like to be involved in teaching digital humanities. But my role would [be about] how to make it attractive to people and not scary. I like the whole idea of digital humanities. But that for me feels way ahead, and I look at that and I freak out, thinking "well, what can happen." so I feel that, at times, as a person, as a TA, I feel like I'm stuck right in the middle, between somebody that is so dated and digitally [advanced], and so at times I feel like my needs as a TA are not met.

Charlotte felt conflicted regarding what tools were best to use in her situation. She stated, "I feel that so much data is available right now, and then, because [IT] is such a crazy-growing field, we don't really know what is really available."

During the face-to-face interview, Charlotte expressed two main reasons for integrating IT. She asserted, "I feel that it facilitates my job [and] enriches their understanding." The next subsections discuss Charlotte's intellectual and emotional attitude focused on student learning and making the TA's job easier when experiencing with IT.

IT and Student Learning

Charlotte felt that IT was an effective resource that helped guide and enrich student learning of French. She believed that IT was best used when engaging students to the lesson

content and demonstrating culture through images, videos, and music. Charlotte believed that social media was not academic and therefore should not be used to teach French. Lastly, she believed that there should be regulations that apply in class and outside of class when students are manipulating IT.

Engaging Students to the Lesson Content and Demonstrating Culture. Charlotte thought that integrating IT into her curriculum brought variety to her lesson content presentations. She also expressed that it allowed students to learn from sources other than herself. During our face-to-face interview, she explained,

First, I want [my students] to hear different types of French. Second, I don't want to talk all the time, so it takes [some weigh] off me a little bit. So, then, I feel like, visually, I am not a movie. So [I present to my students] visual things, something about wars and revolutions, things that are ...visual[ly engaging] when we see the documentary. Seeing is believing on so many levels. And I really do believe that for literature, that approach of staying in the book forever and not seeing anything, to me, it still feels a little bit dated.

Regarding real-life narratives taught in the literature course, Charlotte stated that integrating authentic cultural media that represented historical events “enriches their reading, so much.” She felt divided on whether it was better for students to watch movies during class or to watch them as homework. She expressed,

Because I feel like if I ask them to watch a movie [as homework] it's going to get their focus off. It's easier to watch a movie than to read a book, [therefore] they would comment on [the movie and the book]. And that requires too much effort from me [to give critical feedback].

On another hand, she challenged the previous statement,

So, I feel that if I teach this class again, then I would probably have a video to watch and an assignment to read, because that would facilitate my explanation of the material. But again, not everything topic that we read is actually accompanied by a video.

In an email interview regarding the language course, Charlotte wrote about her experience teaching about European football, which was a lesson in the textbook *Imaginez* (Champeny, 2015). Charlotte presented a short film which was part of the online component of

the textbook *Imaginez Supersite* (Vista, 2017). She then presented an additional video from YouTube. She explained,

I wanted students to understand a little more in depth the meaningfulness of football in France. I used a YouTube video that explained the rules of soccer to help them build up and use the necessary vocabulary that was introduced at the beginning of the class.

After showing the YouTube video, Charlotte showed student the website of the Union of European Football Associations (UEFA) “to drill expressions that are used in French for scoring.” Charlotte stated that adding outside resources enriched the lesson and that students were engaged during instruction. When asked about the students’ reaction to the IT that she used in that lesson, she answered, “Talking about soccer was fun and students were very engaged. It also helped them remember the vocab and the cultural aspects better.”

During the study, there were instances when the IT that Charlotte integrated did not draw student engagement. She taught a textbook-based lesson that included the culture and geography of Maghreb. As part of the lesson, she played short clips from *Imaginez Supersite* (Vista, 2017) as well as other online resources. She explained, “I used maps to help students situate the countries. We also listened to some *rai* (Algerian music) and watched a short video clip about henna and marriage in Morocco. I also showed some monuments and places of interest that one can visit in all three countries of Maghreb as we were answering questions in the “Imaginez” section [of the textbook].

When discussing students’ reaction to this lesson, Charlotte expressed,

They usually respond with interest to cultural and historical videos. I truly believe that it is better demonstrating culture through objects, videos, and music rather than make students read about it. This class was not very responsive to the music videos I played before the class. Usually, I get a better response. They also preferred that I print out the exercises we did in class rather than read them off the screen.

Social Media. Charlotte had a strong attitude against integrating social media in her teaching. She expressed, “Twitter, Facebook, and Instagram are not something that I am comfortable with...And I don't think technology and social media, [although] they intertwine, [are] the same thing.” The reason for her reluctance to integrating social media as IT is that she feels that social media is a space that is not regulated enough. She explained,

We don't have university regulation on how we use the media. This is not stated anywhere. It's not written in the university constitution. That's why in my syllabus, [and so do other TAs] at the department, I have an addendum that says how you will use the media and how you will address certain things.

Furthermore, Charlotte felt that although social media had intellectual value, it could not fit into the academic sphere. For example, one of the ground rules for online discussion in the literature course stated, “Social networking and text messaging has spawned a body of linguistic shortcuts that are not part of the academic dialogue.” In our face-to-face interview, she asserted,

[Social] media came out of the popular culture. It is intellectual, it has a high intellectual value, but it came out as a popular culture. It's completely not regulated. And when we use something that's not regulated, [students] can get lost. And so, I feel that at times, it [requires] extra control and [causes] extra stress [for a TA]. That's why I do not like using [social] media; because the use of media is not regulated.

During our face-to-face interview, I asked Charlotte if she would ever integrate social media into the literature course. She responded,

Not really. The only way that I could see it included would be student projects that they would choose doing on Facebook. One of the things I was thinking [of] as a possible final project for this class, would be a Facebook page of [book characters like] Mathilde or Ourika. This has been done before and there are examples of that on the web that I could give to them.

Although Charlotte believes this idea would be productive, she argued that it would require extra control from her as a TA. She expressed, “I don't see myself being fully involved into maintaining [a social media production]. My big problem is maintaining those pages... I'm a bit withdrawn.”

Regulation of IT Use by Students. In both courses, the student use of all electronic devices was prohibited, except for emergencies or specific assignments. The syllabus for the literature course stated that dishonoring this rule “will result in a loss of participation points for the day.” It also distinguished a difference between dictionaries and translation programs, “The use of paper, electronic, and online dictionaries will be permitted while the use of all translation sites and programs are entirely prohibited.”

The syllabus for the language course stated, “IMPORTANT: All electronic devices (including laptops and cellphones) must be kept in your backpack and must be silenced (not on vibrate mode) during the entire class period.” It stated IT regulations for graded home assignments as well,

Prohibited and acceptable [IT] resources: Students are not allowed to use the following when preparing graded assignments at home: spell check [and] grammar check programs; computer-assisted translators, or online translation programs. Students may use the following [IT] resources when preparing graded assignments at home: the course online workbook (Vista Higher Learning Supersite).

Charlotte held a fearful attitude toward student use of IT during class. I observed her teaching a lesson on how to use online resources to write better and not cheat. On that day, she assigned students to bring their laptops to class so that they could learn pragmatically. During our face to face interview, she expresses, “You know the day when I had taught students with their laptops there, we could have done so much more if I didn’t have that inside fear that all they’re going to do is check their emails.” Charlotte stated that it is a department-wide rule that students must not use laptops during language courses. She explained why she abode by this rule, “if I allow students to use computers [during class], they’re going to get lost.”

Charlotte held a strong opinion toward university regulations regarding student use of IT during class. She expressed,

I feel that with how we're surrounded with technology right now, there should be university regulations on the use of IT in classrooms throughout campus. For example, if you use your computer in class, go on Facebook, and your professor notices, it should officially be a zero on the university level. I'm very sorry, it's not me being mean to you, it's not that. It's as if you fell asleep in class. Technically it's the same kind of situation. So, there should be campus-wide control and regulations on using technology [during class]. That would help professors teach in the classroom [while integrating IT]. But this is something that if we start right now, maybe in 2 years it won't be a rule. [Students] know that being late to class is penalized. They know that falling asleep or coming unprepared [is penalized]. I feel that it [should be] a university-wide understanding of technology.

During the literature course, Charlotte had given students a document titled "12 Ground Rules for Online Discussions." Students were to read the document and apply its rules when posting comments as their reading reflections on the Moodle Forum. This document aimed to ensure a safe, courteous, and academic environment when using the forum. The 12 ground rules for posting their comments were as follows,

1. Report [technological] glitches
2. Help other students
3. Don't get cute with text colors
4. Be brief
5. Use proper writing style
6. Cite your sources
7. Use a subject line
8. Do not use emoticons and texting language
9. No YELLING!
10. No flaming!
11. Lastly, remember: you can't un-ring the bell
12. Review your written posts and responses

The document stated that if respected, these rules would warrant that students would produce reading reflections that were grammatically correct with an appropriate tone as an end to a clear academic contribution to the online discussion.

IT Makes the TA's Job Easier

Charlotte felt that “technology is so attractive, and it makes our lives so easy.” She also expressed that she “enjoyed” using IT. She felt that without IT, she would spend a lot more time preparing her lessons. She explained,

I feel that without them, I would have to go and sit in the library, how people used to do it back in the day, and you know I have a lot of respect for that, but I just feel that it's less time-consuming, because we are in such a speed, and it helps me prepare the class quicker too, so imagine if I were to teach a course like that a few years before, say in 2008, it would have been a different time use. All the classroom time, and my own time, and my time to prep, I feel it would be more paper-based. Although I'm still using paper, I'm still printing out stuff and showing them things. It would actually also be more prep on [the students'] side. For example, instead of watching videos [that present information], they would have to read that [information] at home. And I don't think that they would. So, they would come to class and they would not be prepared. So, I would ask them questions, they would not be able to provide the answers. So, if we watch a video together [in class] and it only lasts 10 minutes, well then, we're in the same space, we're doing the same thing, I get a little bit more control of what they learn, how they learn. And then I know that they actually saw it. [Therefore] they are responsible for giving me some feedback.

Although Charlotte believed that IT made a TA's job easier in terms of time-consumption, she also considered that learning IT was time-consuming as well. She asserted, “On the other hand, it's so scary and so time involving that you don't know exactly how you can benefit.” She saw this phenomenon as a draw-back. She explained further,

I'll give you an example. last week or two weeks ago there was something on campus. It was part of the digital humanities workshop. [The ad] said, “If you are teaching literature you're going to benefit from this thing.” Then on the screen, it said “two hours.” And I was like, I'm not really sure how pertinent it is to my work. You're advertising it as something I would benefit from. But you didn't give me enough information to convince me that I should contribute two hours of my life, when I have to teach and write. Then I'm going to come out with this ginormous benefit that will help me teach. Then I was

like, “You know what? It’s a sunny day, and I’m going to sit outside and read,” because I cannot do that.

She also held a positively affective attitude toward Moodle. She felt that it allowed easy communication with her students, and offered easy access to documents pertaining to both courses. She liked that it helped students discipline themselves regarding assignments. She stated, “all the [due] dates are in there, plus its easy.”

Charlotte held a realistic attitude toward the potential pitfalls of IT. She complained that website links sometimes get updated. She gave an example in an email interview, “I wanted to show [students] the importance of football in Africa (because we are discussing certain accepts of African culture in 2102), but the video that I wanted to show got deleted.” In another email interview, Charlotte described how she had compiled links to exercises with answer keys that students could do at home. She explained, I used those links before, [but] some of them didn’t work, so I had to replace them.

In the same negative attitude, she shared her prior experience with Skype and explained why she was reluctant to integrating it again,

The problem with this is that (and I’m not scared of technology) there’s always some kind of problem. It never goes smoothly. Not necessarily on my side, it could be on [the interlocutor’s] side too. There is always [a glitch] and you put so much effort into it, but again, I think it was just my lack of preparation.

During the study, Charlotte had a negative experience while using Kaltura, a video platform that allows students to record themselves and submit the video as an oral exam.

Charlotte asserted that Kaltura is accessible via Moodle and allows her to access all student recordings in one place. She expressed,

Supposedly, students should have no problem using it...but in the end of the day, it fails 30% of the time...I don't like using Kaltura as it doesn't work the same way for Mac and PC and is not user friendly.

Her negative experience with Kaltura is partially due to student errors. She stated that some students forgot to hit submit after recording their video, and then were surprised that she could not find their recording, even though it was visible in their portfolio. She asserted,

My overall comment is that it creates unnecessary anxiety among students and they pass it on to me when they bombard me with the emails over the week-end because Kaltura won't work...So in the end of the day it is me who is responsible for all of their trouble with Kaltura, because I assigned it...I'd like to avoid using Kaltura in the future, or if using it, to have IT support for it.

In conclusion to Theme 2, Charlotte held a positive attitude toward IT, specifically when it was integrated to foster student engagement and make her job easier. She expects her attitude toward IT not to change in the future. In weekly email interviews, she often expressed a positive attitude toward IT related to the past, present, and future. For example, she stated, "I feel pretty good about the tools I used and I will continue using them as they prove to be efficient."

Charlotte held a negative attitude toward the pitfalls of IT, which often happened unexpectedly and required alternative solutions on her part as consequence.

Theme 3: Actual System Use

Charlotte's Actual System Use was frequent, and targeted toward pedagogical objectives. During our face-to-face interview, she stated that she used her office computer and printer, her personal laptop, and the department's scanner for lesson preparation. For instruction, she used the multimedia podium and Microsoft Word during each of my observations, except for one lesson when she only used the white board. The multimedia podium was composed of a computer, an overhead projector, and a screen. For the literature course, she used the web during most lessons to access websites related to specific lesson content. She used Microsoft Word to organize her lessons. Students could see her prepared Word document and follow along while taking notes. All in-class instructions were typed on these Word documents. She printed

modified versions as handouts for students for each lesson. For the language course, she reported in the interview emails that she mostly used Vista Higher Learning Supersite, YouTube, an unidentified online timer, Tex's French Grammar website, as well as other websites related to specific lesson content. In the next three sections, I discuss specific IT resources that she used for both courses: Moodle, YouTube, and email. The fourth section discusses lessons where no IT was used.

Moodle

During the study, Charlotte used Moodle “extensively.” She explained, “I use it for everything as you noticed, I like having all the materials on Moodle. My lesson plans are all of those links that are on Moodle.” She used Moodle in a consistent manner and maintained her pages methodically. Below are screenshots of the Moodle page for the language course:



Figure 6. Important Documents.

EXTRA CREDIT

-  FREN2102 Extra credit

Composition guidelines

-  FREN 2102 Composition 2
-  Les outils pour écrire mieux
-  FREN 2102 Guide des corrections
-  FREN 2102 Composition Corrections sheet-2
-  Composition correction guidelines (hidden)
-  Corrections' abbreviations (hidden)

Examen oral 2

-  Examen orale 2
-  F2102 les questions pour 3 thèmes de l'examen oral 2
-  How to record yourself with Kaltura
-  Les questions pour Examen oral # 2 (hidden)

Figure 7. Extra Credit Opportunity, Composition Guidelines, and Preparation and Submission Links for Oral Exam

Leçon 7

-  Leçon 6 le 13 juin
-  Leçon 6 le 14 juin
-  Composition 1 le 15 juin
-  Leçon 7 le 15 juin
-  Leçon 7-8 le 19 juin (hidden)
-  La Leçon 7_le 15 juin (hidden)
-  Composition 1 (hidden)
-  Leçon 7_le 17 juin (hidden)
-  Révision pour Examen 1 (hidden)

Figure 8. Hidden and Unhidden Word Documents for Lesson 7.

Below Are Screenshots Of The Moodle Page For The Literature Course:



Figure 9. Welcome Picture with Books That Students Would Read During the Semester.

Semaine 13

-  Leila Sebbar La photo d'identité
-  le 4 avril
-  La photo d'identité de Leila Sebbar_remettez les réponses avant 9h00 du mardi 4 avril
-  la colonisation du Maghreb
-  L'hommage aux femmes algériennes du photographe Marc Garanger
-  Femmes Algériennes 1960 de Marc Garanger
-  La guerre d'Algerie (1954-1962)
-  Guerre d'Algerie - documentaire (partie 1)
-  Général de Gaulle - Je vous ai compris
-  La bataille d'Alger - la bande annoncée américaine
-  Femmes algériennes 1960
-  Les Auschwitz de la France en Algerie
-  Women Unveiled: Marc Garanger's Contested Portraits of 1960s Algeria

Figure 10. PDF Document, Word Document, Assignment, Website Links, and Picture for 13th Week.

Charlotte organized and maintained both Moodle pages so that “Ideally, there shouldn’t be anything that they should be doubting.” She felt disappointed in the fact that students could not access the materials on Moodle after the course is over. She expressed,

My big problem is that once the course is over, [students] don’t have access to it anymore. I feel the students need to have access to the material at least like another semester, two semesters, because, they paid for it. That is actually wrong. Because if I [were a student and] thought of something over the summer or [read] some kind of book, (this is what education is about, right?), I’d be like “oh there is this link, but, hey, I cannot [access it] ...and I don’t want to bother my professor with this little thing.” I’m thinking from the point of students. I’m thinking, if they were interested in something and they wanted to ask me to watch a particular video again (I mean, in my dream world, they would), then they could not see it anymore; because the access to the course would be cut off.

To address this issue, Charlotte thought of emailing her students saying, “if there are any links or any materials that you think are worth saving, do it now because after a while it won’t be accessible to you.” Charlotte appreciated the fact that her access as an Instructor lasted longer, so that she could “re-teach this all, but I actually would have to save those links too because after 3 semesters it won’t be accessible to me.”

YouTube

I have observed Charlotte exposing her student to French and Francophone music related to lesson content. In an email interview, she stated that she used YouTube to show music videos before class and/or some culture related shorts clips during class. Charlotte carefully planned for the YouTube videos that she would use. She explained,

I usually play some kind of song that either has to do with the topic or with the country of origin that we are discussing a minute or two before the class. It allows me to say, “what you saw [and heard] is actually [related to] what we are discussing today.” ...This is technically the beginning of my classes...I actually enjoy teaching by song.

Charlotte integrated YouTube for showing videos, and sometimes, just so let students hear music. She stated that looking for the right song can sometimes be stressful, especially when she was looking for videos in French about non-francophone cultures.

Email

As part of my documentation data, I received the emails that Charlotte sent to her students at the same time as they did. This data indicates that she emailed students regularly. Emails communicated details on upcoming classes, and instruction on how to prepare for them. She sometimes instructed students to email her their completed assignments. In our face-to-face interview, Charlotte explained that sending emails to students on a regular basis fostered student responsibility. She stated, “I send a lot of emails because it’s my communication with them. I don’t want anyone to come to class like ‘Oh I didn’t know’.” Charlotte appreciated the email function on Moodle. She expressed, “I like the email [function] so I can send it to everybody [at once].”

No Actual System Use

I observed lessons where Charlotte integrated little to no IT. During our face-to-face interview, Charlotte expressed, “there are some classes where I would come in, you saw them, where I would be like “hey, let’s just improvise.” And I love those days.” One particular lesson that I observed consisted of a class discussion on the novel *Stupeur et Tremblements* (Nothomb, 1999). Discussions on the novel as a class and in pairs took place. A handout with information regarding the novel characters and relevant aspects of Japanese culture was used to guide the discussions. Text and graphic explanations were given by the instructors on the white board. Students were engaged in the conversation, sharing ideas, criticism, and expectations of the ending of the novel. Half of the students had prepared notes based on the other half’s critical

comments previously posted on the Moodle Forum. This observation serves as data that indicates that Charlotte's instruction did not depend entirely on IT.

To conclude Theme 3, data suggested that Moodle, YouTube, and email were the IT resources that Charlotte used the most extensively. She used other resources occasionally, according to the lesson topic. There were lessons where she integrated little to no IT as well. Charlotte's Actual System Use was frequent, yet it varied. IT choice was planned for and targeted toward specific pedagogical objectives.

Conclusion

The three themes that emerged from the analyzed data painted a picture of Charlotte's involvement with IT as a professional with prior experience, skilled and frequent Actual System Use, and future ambitions. Pedagogical goals, access, and digital readiness influenced her Behavioral Intention to Use. She held a complex attitude toward IT consisting of embracing and fear when it came to student learning and making her job easier. One resource that she did not enjoy and therefore never integrated was social media. One resource that she desired to integrate but did not have access to was a Smartboard. Overall, research findings indicated that Charlotte's attitude toward IT was positive. Charlotte enjoyed the tools that she was using, even while considering their draw-backs, and planned to continue using them in the future. In the next chapter I interpret the findings by addressing the research questions. Furthermore, I offer implications and recommend future research directions as an attempt to bridge the gap in knowledge about TAs of French and their attitudes toward IT.

CHAPTER 5: DISCUSSION

In this chapter, research results are interpreted in light of the research questions and discussed in conjunction with literature presented Chapter 2. This chapter provides the discussion of the findings, organized by research question, followed by concluding thoughts, implications, and future research directions.

What Are the Personal Experiences of a TA of French at a Southern US Public University with Technology Prior to, During, and After her Assistantship?

The three themes that emerged from the data suggested that the participant's involvement with IT began with a prior experience in the academic sphere. Her Actual System Use at the time of the study was skilled, frequent, and targeted toward set pedagogical goals. The participant aspired to continue using the IT that she was using at the time of the study. She desired to learn more IT if it could improve her instruction of French.

The participant's prior experience with IT was plentiful due to the technology-oriented master program she was enrolled in. I believe the practical education and TA training she received yielded to the digital readiness that she manifested during the study. The many roles that she played during her graduate studies prior to and during the study (as graduate student, TA, foreign language lab worker, and professor's assistant) exposed her to various forms of IT where she was compelled to learn how to successfully manipulate them for academic purposes. The participant planned to continue to integrate IT in the future, with the ambition of becoming a professor of literature after earning her degree. Her professional aspirations confirm Paradise & Bergstrom's, (2005) claim that the TAs of French of today represent the French language faculty members of tomorrow.

What Are the Internal Beliefs, Attitudes, and Intentions of a TA of French Regarding the Importance and Implementation of IT?

The participant had a strong belief that the integration of IT is essential, if it is targeted toward fruitful student learning outcome. The findings suggest that pedagogical objectives, access, and digital readiness are strong motivational factors for integrating IT. The participant intended to use IT during lesson planning, which required diligent research and verification of system efficacy. The participant had access to wide array of IT tools, due to the resources of her department, her university, and seldom her own funds. Digital readiness gave the participant a confident attitude toward the integration of IT. I believe her digital readiness, which developed over time, facilitated the enjoyment she felt while using IT. These findings are consistent with previous research which found that teachers' understandings about the possibilities for using IT in the classroom developed through their actual classroom practice and that using a new tool overtime made teachers feel more positive about it Haines' (2015). She felt a positive attitude toward IT because it made her job as a TA easier by helping her save time during planning allowed her to let sources other than herself teach historical and cultural contexts.

She held a complex attitude toward IT consisting of embracing and fear when it came to student learning and making her job easier. The participant embraced IT use because it helped trigger student interest and engagement during instruction, especially when learning culture. I believe that adding web-based resources such as music, images, films, short videos, and maps to the information that the textbook offered enriched student learning. This idea is congruent with the research of Spodark (2004) and Sconduto (2008) that indicates that integrating web-based practices adds interest to the course material, enhances comprehension of the target-language text and culture, and acknowledges and accommodates the needs of students with various

learning styles. It is my belief that online sources yield to exposing second-language students to the target culture, an ideal concept to achieve cross-cultural instruction.

The participant felt fear when faced with the myriad of IT tools and resources available. She also felt fear against the fact IT is constant-developing field with new resources available all the time. The participant was reluctant to letting students use IT during in-class instruction. She felt that there should be university regulations set in place to encourage students to use IT responsibly during instruction.

The participant showed a clear dislike for social media, as she stated that social media emerged from popular culture and is therefore not regulated enough to be applied in the academic sphere. This belief is contrary to Drewlow's (2012) research which found that integrating Twitter contributed to a sense of community, lowered students' anxiety in their participation, promoted engagement, and contributed to enriched discussions in the classroom. It also opposes Ngandu-Tshiebue's (2016) research which revealed that learning French using Facebook as a social network was a useful and practical way to improve language skills.

The draw-backs of IT, such as technological glitches and potential human errors on the part of students discouraged the participant from integrating certain tools such as Kaltura and Skype. However, it did not impact her attitude toward IT in general.

In What Ways Does a TA of French Implement the IT Instruments and Resources that Are Accessible to her in the Courses that She Teaches?

The participant's Actual System Use was frequent, and targeted toward pedagogical objectives. She used most of the IT tools available to her at her office, department, and campus entities. She implemented these instruments methodically, according to lesson topics and desired student learning outcome.

The multimedia podium available in all French language classrooms was indispensable to her instruction. Microsoft Word was essential for everyday instruction because it was a mean for her to gather all lesson content in one document while allowing students to follow along on the screen. Moodle was the central platform for course calendar, communication, assignment submission, and document access.

The participant integrated YouTube videos extensively. She believed that exposing students to French and Francophone music at the beginning of each class helped them connect to the lesson of each class. She believed that learning culture through music was more efficient and innovative than learning it from reading books. She also played short clips found on YouTube, which allowed her to rest her voice and have students look at something other than herself during instruction.

Film was used to deepen student understanding and allow for more critical analysis of texts. Viewing the film-version of a text did not aim to replace the original work of literature. These findings are broadly in line with those of researchers such as Gross (2007) and Boumtje (2009) who concluded that films must not be viewed as competing with the traditional literary text even though they are rich in representations of the visual and auditory texture of language, space, and human interaction across many contexts relevant to a French cultures course.

Lastly, the participant used the email function on Moodle to communicate with her students. She believed communication fostered student responsibility toward class work. She communicated with students often so that they may never have excuses for incomplete work.

What Are the PU and PEU of these Instructional Technologies According to a TA of French?

The participant held an obvious PU of the tools that she used. Mainly, she thought IT was useful to teach culture, provide contextual information on lesson content, and authenticating lesson content. She believed from her own personal experience as a language student that IT can help write in French better and without cheating. Integrating IT tools allowed students to deepen their understanding of French and Francophone cultures. It also exposed them to evidence that compelled them to hold a realistic perspective on the themes presented in the course.

Authenticating the content via images, sounds, and online articles brought the lessons to life and complemented what the textbook and the literature offered students. Lastly, IT was fruitful in the sense that it perpetuated class discussions related to the lesson content in which students were able to express themselves in the target language.

The participant used tools toward which she held a PEU. These tools were easy for her to use because she had made it a habit to use them. The research suggests that effective IT integration was achieved with preparation, including anticipation to technological glitches and failures. Although she felt the preparation for IT integration was often stressful, the participant felt using IT was worth implementing in order to reach her pedagogical objectives. She was eager to learn new IT instruments, and wished she would receive more IT training from her department.

Concluding Thoughts

“A case study is both the process of learning about the case and the product of our learning” (Stake, 1994, p.237). Over the course of the study, I identified myself with my participant as a person with whom I shared common academic interests. The more I studied her as a case, the more I found myself in her experiences. This study made me more assertive in my own beliefs and attitudes towards IT, either by agreeing with or opposing her beliefs in my own reflection. The case study and myself have become the product of my own learning.

This research intended to explore the experiences of TA of French with IT. All steps proposed by case study experts (Stake 1994, Yin 2014) helped guide the researcher and allowed the case and the researcher to grow intellectually together on a common topic. Accompanying the participant through her teaching experience allowed me to gain insight on her beliefs and feelings toward the integration of IT. I have learned that her experience as a TA was similar to mine when I was a TA in the sense that she believed IT should be used for academic purposes such as fostering student learning. The study of her experience was valuable because it generated scholarly knowledge about the thought process that a TA undergoes when integrating IT. The nature of my data and the themes that emerged from the data serve as evidence that case study design was appropriate for this research.

This study brought up the question of whether social media has educative value (Greenhow, 2009). The participant was clearly opposed to integrating social media into her pedagogy because she believed that since it came out of popular culture, it was not regulated, and students could get lost in it. It is my belief that social media is IT if educators and learners choose to make it IT. In agreement with the participant’s overall attitude toward IT, the fruitful integration of social media depends on the pedagogical goals set in place for the learners. In my

experience, social media as IT is beneficial to learning by fostering communication among learners, giving access to current information, offering a wide array of tools and features for personal interest-driven activities, and flexibility in mobile device choice (Drewelow, 2012; Ngandu Tshiebue, 2016).

The study appears to support the argument that French department leaders in US universities should consider the experiences and opinions of TAs toward IT. French department leaders should know that providing IT does not guarantee that its potential will be realized if TAs are not trained properly and that listening to TAs' needs is essential to better understand their responses to these tools (Allen & Nequeruela-Azarola, 2010, p. 383). Lastly, French department leaders should consider TA's attitudes, beliefs, and feelings toward IT because TAs are the instructors who have the power to make French easy to learn, welcoming, and engaging for undergraduate students.

In considering TA's attitudes toward IT, French department leaders would know what exact resources TAs need to teach productively. For example, the participant in this study felt she needed a Smartboard to teach better, however, it was not accessible to her because of its quantity and location. Another example where the TA's needs were not met is that she desired that her department offered more IT training. It is my hope that through case studies like this one, French department leaders would realize that IT training is an essential part of TA professional development for TAs aspiring to integrate IT.

Implications

From the conclusions just discussed, several implications ensued and resulted in the following observations and suggestions. Support for learning to use IT tools should occur in a French department-sponsored TA training program. All involved parties in this potential

program should seek to understand and value the diversity that exists within IT resources, as all TAs have their own personalities and teaching styles. TAs should be taught that they have access to a wide range of tools to gain awareness of existing tools and the confidence to try out new ones (Haines, 2015). Finally, my study offers suggestive evidence that “opening a dialogue with students about the TA experience, having TAs formally reflect on their experiences, and helping TAs to professionally develop” (Weidert et al., 2012, p. 101) as part of a potential coursework linking teaching and scholarship would benefit graduate students who intend to become professors of French.

Future Research Directions

As Zapata (2002), Paradise & Bergstrom (2005), and Allen & Negueruela-Azarola (2010) have studied, the paucity of research on the attitudes of TAs of French illustrates what little is known about IT programs and practices that specifically benefit TA professional development. I think possible future research on TAs of French and IT should be directed toward other TAs to enrich the data available on TA attitudes, beliefs, and feelings, and consequently attain a general TA perspective on IT integration and training. As French department leaders in US universities would assume a broader role in TA training by listening to TA’s needs, information on TA attitudes, beliefs, and feelings would need increase.

A variety of IT training practices and programs can be developed and implemented. One of the most promising is the creation of a practicum that TAs would attend regularly to practice teaching methods that integrate IT. This practicum would be mandatory and for graduate credit. Any departmental involvement in an IT training program for TAs must have sufficient and digitally proficient staff, funding, and planning to be successful. Linkage to other university

campus entities, such as education departments and ITS, would support this program while fostering TA professional development.

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APPENDIX B: INTERVIEW PROTOCOL FORM SPRING

Teaching Assistant Interview

Institution: A southern US public university

Interviewee (Pseudonym): Charlotte

Interviewer: Farida E. Ngandu

Research Topic: Attitudes of Teaching Assistants (TAs) of French toward Instructional Technology (IT)

Documents Obtained: Recorded audio script

Interview Sections:

- A. Interviewee background
- B. Personal experiences of TA with technology prior to and during her assistantship
- C. The ways TA implements IT instruments and applications that are accessible to her
- D. PU and PEU of these instructional technologies according to TA
- E. Internal beliefs, attitudes, and intentions of TA regarding the importance and implementation of IT

Introductory protocol:

To facilitate my note-taking, I would like to audio record our conversations today. Please sign the release form. For your information, only the researcher on the project will be privy to the audio files and their transcriptions. In addition, you must sign a form devised to meet my human subject requirements. Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) I do not intend to inflict any harm. Thank you for your agreeing to participate.

I have planned this interview to last no longer than one hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.

Introduction:

You have been selected to speak with me today because you have been identified as someone who has a great deal to share about teaching, learning, and assessment in French studies using technology on this campus. The purpose of this study is to investigate the attitudes of a TA of French toward IT by exploring the dynamics of IT use in the course that she teaches. My study does not aim to evaluate your techniques or experiences. Rather, I am trying to learn more about teaching and learning with IT, and hopefully learn about TAs' attitudes and practices with IT and their effect on teaching and learning of the French language.

C. The ways TA implements IT instruments and applications that are accessible to her

1. What IT instruments are accessible to you as a TA of French and where do you get access to these instruments?

Probe: What kind of IT resources do you use?

Probe: Where do you acquire them?

2. Which IT resources would you consider indispensable to your work?

3. How do you implement IT instruments and applications in the courses that you teach?

Probe: What IT resources do you use in your courses?

Probe: What level of IT do you incorporate in your courses?

D. PU and PEU of these instructional technologies according to TA

1. For what purpose do you use IT?

Probe: What pedagogical goals are you aiming to achieve when using IT?

2. *Perceived usefulness* is defined as the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context. What is your perceived usefulness of the IT tools we just discussed?

Probe: How does using _____ help you teach your courses better?

Probe: What about the other tools we discussed? How does using _____ help you teach your courses better?

3. *Perceived ease of use* (the acronym is PEU in this study) refers to the degree to which the prospective user expects the target system to be free of effort. What is your perceived ease of use of the IT tools you use in your courses?

Probe: How easy it is to use _____?

Probe: What about the other tools we discussed? How easy is it to use _____?

4. What TA training, if any, have you received regarding the IT tools that you use?

Probe: What training resources have helped you learn to use the IT tools that you use?

E. Internal beliefs, attitudes, and intentions of TA regarding the importance and implementation of IT

1. What is your overall belief regarding the importance of the implementation of IT in the courses that you teach?

Probe: What level of importance do you accredit to IT?

2. What do you think are the external factors on your internal beliefs, attitudes, and intentions to use IT in the courses that you teach?

Probe: Why are you motivated or not motivated to use IT in your French courses?

Our interview is now over. Thank you for taking the time to participate in this study. Do you have any questions for me?

Post interview comments or leads: _____

APPENDIX C: WEEKLY INTERVIEW PROTOCOL FORM

Weekly Interview Questions

To be answered and emailed to fngand1@lsu.edu after the last lesson of each week

Week # _____

FREN 2102 - Intermediate French II

Date of Lessons: _____ to _____

Institution: A southern US public university

Interviewee (Pseudonym): Charlotte

Interviewer: Farida E. Ngandu

Research Topic: Attitudes of Teaching Assistants (TAs) of French toward Instructional Technology (IT)

Interview Questions (please refer to the Definition of Terms on the next page if necessary):

THIS PAST WEEK

1. For what purpose did you implement or not implement IT in this week's lessons? (What pedagogical goals were you aiming to achieve if using IT in this week's lessons?)
2. If used, how did IT help you or hinder you from reaching your pedagogical goals?
3. How did your students respond to the technology implemented in class this week?
4. How easy to use did you expect the IT tools that you implemented this week to be while planning your lessons? (Did you have any experience/training using _____ before?)
5. How do you feel about implementing or not implementing the IT tools that you used this week in future lessons?
6. Do you have any questions or comments for me?

Thank you for your time completing this weekly interview,

Sincerely,
Farida Ngandu
Fngand1@lsu.edu
225.288.7949

Definition of Terms for the Interviewee

- *The attitudes of Teaching Assistants of French toward instructional technology* is the scope and extent to which graduate teaching assistants who teach college-level French are interested in, are comfortable with, and are active participants in the adoption of instructional technologies in the sphere of French instruction (Paradise & Bergstrom, 2005, p. 1).
- For this study, *Teaching Assistants of French* are graduate students who are employed to give instruction of the French language to undergraduate students, conduct lectures and make presentations in classrooms, lead discussion groups, assist with preparing examinations, grade assignments, tutor students outside of formally scheduled classes, and hold office hours (LSU Graduate School, 2017b, para. 1). Teaching Assistants of French must perform all of these duties while being enrolled full-time, remaining in good academic standing, and maintaining at least a 3.0 grade-point average (LSU Graduate School, 2017a, para. 2). The acronym for Graduate Teaching Assistant is GTA. The acronym for Teaching Assistant is TA.
- In this study, the term *attitude* is used to mean the intellectual and emotional attitude that TAs feel when experiencing with IT in the classes that they teach.
- For this research, *instructional technology* is more simply defined as “the physical means via which instruction is presented to learners” (Reiser & Dempsey, 2012, p. 1). This study focuses on the educational media and tools that are used to “bring about more effective instruction” (Commission on Instructional Technology, 1969, p. 1) by supplying task structuring support, access to information resources, and alternate forms of content knowledge representation. The acronym for instructional technology is IT.
- *Perceived usefulness* (PU) is defined as the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context (Davis et. al, 1989).
- *Perceived ease of use* (PEU) refers to the degree to which the prospective user expects the target system to be free of effort (Davis et. al, 1989).

APPENDIX D: OBSERVATION PROTOCOL FORM

Classroom Observation Form

The purpose of the classroom observation protocol is to gather objective evidence as to what is observed and heard during a French class lesson. The observation is focused on teaching and learning using instructional technology (IT) inside the classroom. The purpose of this study is to investigate your attitudes as a teaching assistant (TA) of French toward IT by exploring the dynamics of IT use in your courses. My study does not aim to evaluate your techniques or experiences. Rather, I am trying to learn more about teaching and learning with IT, and hopefully learn about TAs' attitudes and practices with IT and their effect on teaching and learning of the French language.

Instructor: Charlotte (Pseudonym) **Course:** FRENCH 2155 / Intermediate French Literature

Observer: Farida E. Ngandu **Time In:** 10:30 am **Time Out:** 11:50 am

Semester: Spring 2017 **Date:** _____

IT resources and applications observed	Offline	Online	Purpose	Effect on lesson teaching and learning
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		

NOTES

APPENDIX E: DOCUMENTATION PROTOCOL FORM

Material and Computer-Generated IT Resources Analyzed by the Researcher

Instructional technology: Material resources analyzed		
Resource name:	Runs with Internet? <input type="checkbox"/> yes <input type="checkbox"/> no	Mobile? <input type="checkbox"/> yes <input type="checkbox"/> no
User: <input type="checkbox"/> instructor <input type="checkbox"/> student <input type="checkbox"/> both	Accessibility: <input type="checkbox"/> campus-provided <input type="checkbox"/> rent/buy	
Location of use:		
Purpose:		
Note:		

Instructional technology: Computer-generated resources analyzed	
Resource name:	Runs with Internet? <input type="checkbox"/> yes <input type="checkbox"/> no
User: <input type="checkbox"/> instructor <input type="checkbox"/> student <input type="checkbox"/> both	Interactive? <input type="checkbox"/> yes <input type="checkbox"/> no
Language(s):	Accessibility: <input type="checkbox"/> campus-provided <input type="checkbox"/> rent/buy
Device needed to run resource:	
Location of use:	
Nature of activities offered: (audio, video, text, image, etc.)	
Purpose:	
Note:	

APPENDIX F: INSTITUTIONAL REVIEW BOARD APPROVAL

ACTION ON EXEMPTION APPROVAL REQUEST



TO: Farida Ngandu
Education
FROM: Dennis Landin
Chair, Institutional Review Board
DATE: April 21, 2016
RE: IRB# E9911
TITLE: The Attitudes of Teaching Assistants of French Toward Instructional Technology

Institutional Review Board
Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8892
F: 225.578.5983
irb@lsu.edu | lsu.edu/irb

New Protocol/Modification/Continuation: New Protocol

Review Date: 4/21/2016

Approved X Disapproved

Approval Date: 4/21/2016 Approval Expiration Date: 4/20/2019

Exemption Category/Paragraph: 2a,b

Signed Consent Waived?: No

Re-review frequency: (three years unless otherwise stated)

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable)

By: Dennis Landin, Chairman [Signature]

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING – Continuing approval is CONDITIONAL on:

- 1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. SPECIAL NOTE: When emailing more than one recipient, make sure you use bcc. Approvals will automatically be closed by the IRB on the expiration date unless the PI requests a continuation.

*All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at http://www.lsu.edu/irb

VITA

Farida Emelia Ngandu Tshiebue was born on October 6, 1988, in Annaba, Algeria. During her childhood, she lived in France and in the United States. After finishing high school in 2006, she studied French and Secondary Education at Louisiana State University (LSU). She received an M.A. in Romance Languages from the University of New Orleans (UNO) in 2011. She was accepted into the LSU School of Education majoring in Curriculum & Instruction to complete a doctorate degree. During her graduate studies, she has taught French to college students and supervised teacher candidates of French and Spanish. She anticipates graduating with her doctorate degree in May 2018. She plans to continue promoting French language acquisition for many years to come.