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Exploring Language Learning Through the Lens of Online Speaking Labs

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Doctor of Philosophy

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ABSTRACT

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With the growth of technology-enhanced language learning comes increased use of online applications and interventions in language education. The articles in this dissertation consider the role of technology in online language courses taught at Brigham Young University. Three perspectives on the use of online speaking labs are considered. The first article considers the Conversation Café, an online speaking lab intervention, from an evaluative perspective. Usage, user perceptions regarding effectiveness, and financial viability of the café are evaluated. Findings reveal student usage is not as high as required in coursework, students have a more favorable perception of the intervention than faculty and teaching assistants, and that the café is not offered and staffed appropriately to meet financial viability thresholds set by stakeholders.

The second article addresses the common perception that online courses lack elements of sociocultural theory. It reports on the approach the university took to the course development, sociocultural aspects of implemented interventions, and preliminary evaluative findings regarding the effectiveness of the interventions.

The final article is a case study examining student experiences in online and face-to-face French speaking labs. This article considers student satisfaction with online and face-to-face labs as well as preference for one type or the other. Findings reveal student preference toward and higher satisfaction of the face-to-face. Negative student comments regarding the online setting in particular tended to focus on elements of convenience rather than aspects essential for learning. Implications for further research are discussed.

Keywords: online, language learning, speaking labs, student experience, sociocultural theory

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To my husband and children who encouraged me to fulfill my lifelong goal of completing a PhD and lovingly supported me through the process. To my chair, Randy, who mentored me and pushed me to excel in my research and publications. To my committee who provided excellent feedback and support.

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Article 1

DESCRIPTION OF RESEARCH AGENDA AND STRUCTURE OF DISSERTATION

This dissertation, *Exploring Language Learning Through the Lens of Online Speaking Labs*, is written in an article-based format. This hybrid format brings together traditional dissertation requirements with journal publication formats. The dissertation is a series of journal articles, which conform to length and style (including literature review) requirements for submitting research reports to education journals. In the first section of this manuscript, I provide an introduction and rationale for my dissertation topic. This dissertation includes three articles and an extended literature review, which synthesizes research findings comparing online and face-to-face instruction, language learning online/at a distance, and factors impacting student success in online coursework. I do not intend to publish the literature review, but I have used significant portions of the literature review in the articles contained within this document.

The second section of this manuscript includes the articles of this dissertation. The first article, *Evaluating the Effectiveness of Conversation Café in Online World Language Courses*, is an evaluation of an online speaking lab intervention called Conversation Café. It considers usage, user perceptions regarding effectiveness, and financial viability. Findings reveal lower usage but more favorable perception among students than expected. A few target journals for this publication include *FLTMAG (Foreign Language Teaching Magazine*), *Journal of Behavioral and Social Sciences (JBSS)*, and *Educational Research and Evaluation.* The second article, *Exploring Sociocultural Theory Application in Online Language Courses,* discusses the application of Sociocultural Theory in blended and fully online German language courses, discussing the course development, sociocultural aspects of implemented interventions, and preliminary evaluative findings showing slightly improved effectiveness. This article was published in *Learning and Collaboration Technologies: Learning and Teaching* (2018), which

undergoes a double-blind review process. This article is in print-ready format; the style guide for this article is the Vancouver system, which is widely used in sciences and engineering. The third article, *Exploring the Student Experience in Online and Face-to-Face Speaking Labs: A Case Study,* considers the student experience in online and face-to-face speaking labs among intermediate to advanced French students. This article considers student satisfaction with online and face-to-face labs as well as preference for one type or the other. Findings revealed a preference toward and higher satisfaction of the face-to-face; however, negative student comments regarding the online setting tended to focus on elements of convenience rather than aspects essential for learning. A few target publication outlets for this article include *Foreign Language Annals, FLTMAG,* and the CALL book series.

All three articles are formatted for journal submission (note Article 2 is formatted according to the Vancouver system, which the journal uses, not APA); I provide the references used for each article at the end of that article. The extended literature review is included in Appendix A with its related reference list immediate thereafter. It synthesizes literature comparing online and face-to-face instruction, language learning online/at a distance, and factors affecting student success in online coursework. Appendix B includes instruments used for the third article in my dissertation.

ARTICLE 1

Evaluating the Effectiveness of Conversation Café in Online World Language Courses

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Abstract

With the growth of online education, so too has come the growth of technology-enabled educational tools. As such, students are becoming increasingly exposed to online interventions. A private institution in the U.S. has developed an online intervention for use in their world language courses called Conversation Café. Touted as a means of harnessing the power of technology to improve student language acquisition and proficiency, this evaluation considers three aspects of the café: usage, user perceptions regarding effectiveness, and financial viability. This evaluation reveals usage among students is not as high as required in coursework. Findings also reveal students have a more favorable perception of the intervention than faculty and teaching assistants. Finally, the intervention is not offered and staffed appropriately to meet stakeholder-established thresholds for financial viability. This evaluation concludes potential implications for revised implementation of this intervention in an online program.

Keywords: online evaluation, language learning, student experience, language labs

Introduction

Second language education is a necessary admission requirement for many universities across the U.S., as well as a graduation requirement for several high schools. With the increasing presence of online education, world language courses are now offered at high schools and universities around the world. Brigham Young University is one provider of online language courses, which are offered through their office of Continuing Education under the name Independent Study.

According to the *World Readiness Standards for Learning Languages* (National Standards Collaborative Board, 2015), practice speaking and listening and having interpersonal interaction are key to learning a second language. While traditional classroom interaction is generally accepted to provide opportunities for speaking, listening, and interacting, online language courses are void of the scheduled, physical classroom time. Thus, opportunities for speaking, listening, and interacting may be limited or may be implemented in a very different manner than in a traditional classroom encounter.

Brigham Young University has been offering world language courses via distance education for nearly 30 years through the Independent Study organization housed in the university's Division of Continuing Education. In recent years student end of course surveys and customer feedback commentary noted that interaction and opportunities to practice speaking and listening were limited. Beginning in 2012 Independent Study developed a world language course model that claimed to address the customer requests for interaction and practice using the language in meaningful ways. Their intent was that these opportunities for interaction and oral practice would positively impact student oral language proficiency.

One specific intervention Independent Study implemented in their world language courses is called the Conversation Café. The Conversation Café provides an online forum for students to practice speaking, gain immediate feedback, and improve their fluency. It takes place online, in a virtual lab/forum. Students connect using speakers/mic and webcam and are invited to "drop in" for practice speaking and listening as often as they wish. The café is open set hours each day. In addition to spontaneous speaking practice, the café is also the place where formative, live oral assessments take place.

This article presents results from an evaluation of the implementation, feasibility, and effectiveness of the café. The purpose of this evaluation was to better understand the degree to which this instructional intervention was working and any ways it might be improved.

Evaluand

BYU Independent Study's Conversation Café is the evaluand in this study. The Conversation Café is administered as a supplemental activity in several high school and university courses (see Table 1). These courses indicate the objective of the café is to build language proficiency. Course content (retrieved January 2017) describes the Conversation Café to students as follows:

> The Conversation Café helps you build language proficiency, or your ability to speak in spontaneous, real-world situations. You might complete language tasks with other students and the TA/instructor, ask questions and take notes to prepare for your speaking appointments, or just observe. Keep in mind that you may not use notes or scripts during your final speaking appointment, so avoid using them in the café and during regular speaking appointments.

> Come to the Café ready to use the grammar and vocabulary presented up to and in this unit. You may visit as often and for as long as you wish, but plan on spending at least 15-20 minutes in the Conversation Café during each unit. *NOTE: You must participate in the Café before your speaking appointment.* ("Conversation Café," n.d.)

Students enrolled in an online language course have a link to the Conversation Café in their course material. In every learning module, students encounter a link to the Conversation Café with an indication that students should go to the café to practice what they have just learned. Café hours are at a set time every day, the hours of which vary based on language. Hours are posted in the course information page. Students may drop in anytime during "open hours" and may attend the café for as long as they wish and with as much frequency as they might desire.

Table 1

Language Courses with Conversation Café Component Implemented

Language	High school café offered	High school number of courses	University café offered	University number of courses
American Sign Language	X	4		
Arabic	X	4	X	2
Chinese	X	4	X	2
French	X	4	X	2
German	X	4	X	5
Japanese	X	4		
Korean	X	4	X	2
Russian	X	4		
Spanish	X	4	X	2

This evaluand came to be of interest to me, due to my original interest and involvement with the implementation of the Conversation Café as an employee at Independent Study. I was involved in creating the infrastructure to support the learning model that included the

Conversation Café in online world language courses. Today, however, I am no longer directly involved with the course design, implementation, or support of the online world language courses at this institution.

My further experience with this evaluand includes conducting research and presenting at professional conferences on the subjects of engagement and live interactions in online coursework; the Conversation Café has been discussed in these subjects in the past.

Key Stakeholders

The key stakeholders in this evaluation include the supervisors of teaching assistants (TAs), course instructional designers, faculty teaching the courses, and the members of the dean's office of Continuing Education. They were interested in the evaluation, because they supported the Conversation Café and wanted to ensure its effectiveness, scalability, and financial viability.

Original Stakeholder Intent

Initially, the deans sought the evaluation as part of the annual product review of the world language courses offered. Should the evaluation reflect positively on the café, all of the key stakeholders stand to benefit. TA supervisors, teachers, and instructional designers would benefit, as this would positively reflect on their professional competence supporting the product. Additionally, these supporters and implementers would benefit from the data and compiled evaluation as they continue to work toward improving and refining the Conversation Café. The dean's office stands to benefit, as financially viable products have a positive impact for the division. TAs who staff the café normally do not have a voice in matters associated with the evaluand, but they do have a stake in it. Whatever is identified ultimately comes back to the TAs who are "in the trenches" doing the work implementing the café.

Stakeholder Issues and Concerns

The stakeholders had a number of issues, concerns or information needs regarding the evaluand. There was a desire for both summative and formative information: summative in the regard of product effectiveness and formative based on the assumption that the café would be continued even if some improvement could be made. The deans wanted to evaluate TA manager and designer use of resources in implementing and supporting the café. For instance, they wanted to know whether the cost of this initiative was warranted given the number of TAs required to maintain the café. Additionally, there was a question whether the café implementation was consistent among all language courses and to what extent the café was used by students. Instructor, TA manager, and instructional designers wanted to know if the café was actually resulting in improved student mastery of objectives or increased proficiency.

There was also a question among stakeholders regarding whether administrative questions should be part of an evaluation regarding the effectiveness of the café on student learning. Some stakeholders highly value the administrative and fiscal effectiveness, while others more highly value the academic benefit/effectiveness of the café for students. Those that value the academic effectiveness felt that the financial implications should be a secondary consideration.

Evaluation Questions and Evaluand Background

Considering the stakeholders and their concerns, it was determined that the purpose of this evaluation would be to consider the effectiveness of the Conversation Café in university world language courses. With a total of 51 language courses across high school and university, this initial evaluation was designed to capture global usage across all courses.

The questions for this evaluation, as influenced by the identified stakeholders in this project, were as follows:

- How much is the Conversation Café used?
- How effective do students, TAs, and instructors feel the café is?
- Does the financial sustainability of the Conversation Café suggest possible adjustments should be made in terms of how often the café is offered or "open"?

No previous evaluation has been conducted on this evaluand, as the Conversation Café is a unique element in the online language course marketplace. However, research has been done concerning the Rosetta Stone implementation of live dialogue in their online coursework. The Rosetta Stone model, however, depends on a synchronous/static classroom environment rather than an asynchronously-paced environment online. Theoretical frameworks for language learning draw heavily upon instructional models and theories of Len Vygotsky et al. (1978) and Robert Gagné (1979, 1983).

While there is a deficiency in the literature surrounding effect on student proficiency of an interactive element in online language courses, research does exist concerning the weaknesses of online language learning. Hart et al. (2018) conducted a large, comprehensive study at UC Davis from 2008 to 2012 examining the success rate of more than three million students in nearly sixty thousand courses of varied subject matter in California's community college system. They found that "online course-taking is negatively associated with contemporaneous course performance in terms of course completion, course passing, and the likelihood of receiving an A or a B" (p. 5). They reported a particularly strong negative relationship between taking courses online and student performance, noting this trend across types of student and course subjects.

Hart et al.'s findings (2018) corroborate those of many others who have found that students in face-to-face (F2F) courses are generally more successful than their peers in online courses, especially in course grades and course completion (Johnson & Cuellar Mejia, 2014; Kaupp, 2012; Xu & Jaggars, 2011; Xu & Jaggars, 2013; Xu & Jaggars, 2014). Other studies, however, indicate online students perform equally well, if not better, than their peers in traditional classrooms. The US Department of Education (2010) published a report that examined the comparative research on online versus traditional classroom teaching from 1996 to 2008:

> Over the 12-year span, the report found 99 studies in which there were quantitative comparisons of online and classroom performance for the same courses. The analysis for the Department of Education found that on average students doing some or all of the coursework online ranked in the 59th percentile in tested performance, compared with the average classroom student scoring in the 50th percentile (p. 157).

While the literature appears to produce conflicting views about effect of online instructional methods, there is a clear gap concerning interventions in online *world language* courses. Additionally, the matter remains that Independent Study has implemented an online intervention (the Conversation Café) and needs to evaluate the effect on students. Conducting an evaluation is particularly appropriate at this time, because the stakeholders are interested in identifying the effectiveness of this unique feature in their online language courses. Independent Study recently completed their annual review of the world language suite of courses, at which point they deemed the courses sufficiently stable to move from "startup" mode to "stability" mode. Now that the courses have been in stability mode for nearly a year, the stakeholders want to evaluate the effectiveness of the café.

Bransford et al. (1999) talk about transfer as a key element to learning. In the context of the Conversation Café, the question might be whether students are able to take their didactic learning and apply it effectively in free conversation, whether they can transfer a vocabulary list and the concept of verb conjugation into a phrase or sentence. Gagné (1983) would suggest an instructional model aimed at achieving nine instructional events, including eliciting performance and providing feedback. Oral performance and immediate feedback are elements often found missing in online world language course models. As this project evaluated the Conversation Café, considering the notion of transfer and Gagné's nine instructional events can help frame the context for "effectiveness."

Evaluation Design

Theories from Patton's utilization-focused evaluation, as explained by Fitzpatrick, Sanders, and Worthen (2012), were used to guide this evaluation. Principle stages followed for this evaluation include the following: identify intended users; clarify the evaluation and gain support; determine evaluation methods; analyze and interpret findings, make recommendations; share findings. Standard evaluation checklists (Wingate, 2016) were used to ensure the validity of the evaluation. While the evaluation was requested from the stakeholders in an attempt to identify whether the café is effective, the stakeholders also wanted to consider any elements that came up during the evaluation which could help guide ongoing improvements and refinement to the Conversation Café model.

Data Collection and Methods

The following details the processes and activities which were used to collect data to answer the questions and compare the evaluand to the criteria.

Use of the Conversation Café. To answer this question, we gathered the following information from Independent Study's in-house data stores: peak times of attendance (what hours yield highest attendance), average number of attendees during peak times, average number of minutes students spend in the café over the period of their course, and the number of language courses that offer the café. The data collected included statistics from all users in the online world language courses BYU Independent Study offers, per the request of stakeholders.

Perceptions of effectiveness. Independent study asks all students to complete a survey directly after every interaction with the café. The questions of the survey which are relevant for the purposes of this evaluation are listed below:

- Indicate which of the following course activities you participated in: Conversation Café, discussion board, course wiki, instructor office hours, other.
- Do you feel you learned something new in the café interaction? Please describe.
- Please rank the usefulness of the Conversation Café interaction on a ten-point scale where *10* is very useful and *1* is not at all useful.

Students are not required to complete the survey. Figure 2 (see Results) reflects the responses of students over a 12-month period from April 2016 to April 2017. Of 7426 total enrollments across all languages (high school and university), 146 students responded. This is a typical response rate for end of course surveys administered by Independent Study.

In preparation for their annual product evaluation, Independent Study also gathered feedback regarding live interactions from instructors. The questions from the survey relevant to this evaluation include

- Do you think students understand the expectations for interaction in your course, including the Conversation Café?

- Do you think students access and use course resources like the Conversation Café?
- Do you allow students to use notes in oral assessments?

The assumption at Independent Study is that a decline in teachers allowing the use of notes correlates to an increase in student speaking ability. Instructors were not required to complete the survey; of the 17 instructors teaching Independent Study world language courses (high school and university level, all languages), 10 completed the survey.

Independent Study occasionally surveys TAs to measure their impression of effectiveness of the Conversation Café; this is separate from the teacher survey mentioned above. TA responses were collected prior to Independent Study's annual product evaluation of their world language courses in June 2017. Of 54 TAs who were currently supporting language courses at the time, 34 responded to the survey. The survey questions relevant to this evaluation are

- Rank how well the implementation of the café matches the definition in the course on a scale of 1-10, where 1 means does not match at all and 10 means matches exactly.
- How would you rate the café in terms of impacting student progress towards proficiency? Please use a scale of 1 to 10, where 1 means no impact at all and 10 means significant impact.
- Rate your overall satisfaction with the café on a scale of 1 to 10, where 1 is not at all satisfied and 1 is completely satisfied.

Financial impact and possible adjustment of Café hours. Spanish is the highest enrolling language at Independent Study; therefore, Spanish largely subsidizes the other language courses, notably the less commonly taught languages (LCTL's). The controller for BYU Independent Study provided a cost analysis of the profit and loss associated with hosting the Conversation Café in the Spanish 101/102 courses. In order for the Conversation Café model to be financially viable across all languages, it needs to be profitable enough in Spanish to subsidize the LCTLs. The controller suggested a financial threshold based on enrollments and TAs, considering the number of interactions that would be necessary to achieve certain profitability margins. These data and suggestions helped answer this last evaluation question.

Data Analysis

Qualitative data from the course surveys were summarized in aggregate form; course analytic data were compiled and descriptive statistics were derived. The report of the compiled data and evaluation was shared with the deans, the primary stakeholders for Independent Study online language courses.

Evaluation Criteria and Standards

The stakeholders had several values that they articulated, including the need for the café to be financially viable and the expectation that general success indicators should include final grades, attendance rates at the café, and customer/student and instructor/TA reviews of the café. Stakeholders indicated high value for both student success (an academic measure) and customer satisfaction (a consumer perception). Because they already had a process of reviewing student course grades on a regular schedule (which they used to measure student success), this evaluation did not focus on student academic measures in relation to the Conversation Café. Stakeholders indicated the café would be considered successful in accomplishing its purpose if

students, TAs, and instructors provided positive feedback on the café and if student final grades were not noticeably suffering since the café's implementation.

Results

This evaluation of the Conversation Café intervention in online world language courses revealed the following information about each of the research questions.

Prevalence of Conversation Café Usage

Figures 1, 2, and 3 below reflect compiled data relevant to this evaluation question. A total of nine languages offered the café. Data for café attendance were gathered from the usage analytics tied to Adobe Connect software which is used to host the Conversation Café. Figure 1 reflects hours the café was offered and peak times students attended, broken out by language. While the café was open several hours per day in all languages, most students attended the café only during select clustered windows of time. For instance, Spanish courses had the café open from 8:00am to 8:00 pm, but the most attendance occurred during the hours of 4:00-7:00 pm.

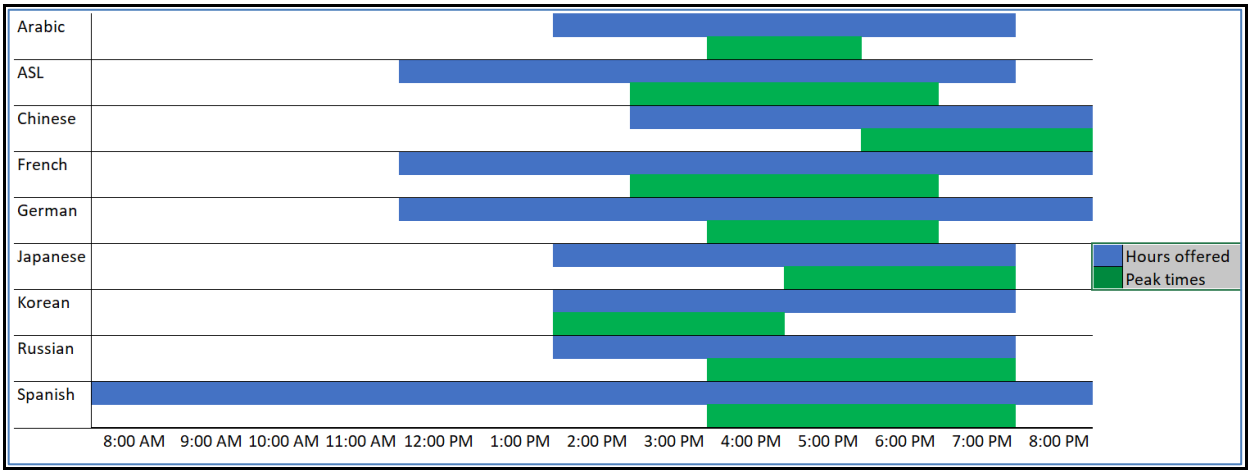

Figure 1. Hours the café was offered, and peak windows of time students attended the café, listed by language.

Figure 2 shows overall enrollments, high school and university combined, per language for a 12-month period (April 2016 to April 2017), average number of students attending the café during peak times, and average number of students attending the café per day (all "open" hours of the café included). Data in Figure 2 reflect how much higher the enrollments and attendance in café were for Spanish courses. The fact that Spanish attendance (both during peak times and overall per day) exceeds that of other languages is likely a reflection of enrollment in the class and class expectations, not necessarily the popularity of the café for Spanish speakers compared to other languages. Figure 3 reflects university courses only: minutes of attendance in the café versus minutes required by course materials. Korean and Spanish show the smallest gap between required and actual minutes spent in the Conversation Café. It should be noted that Independent Study personnel attributed the higher attendance rates in Korean and Spanish to clear course requirements for café attendance.

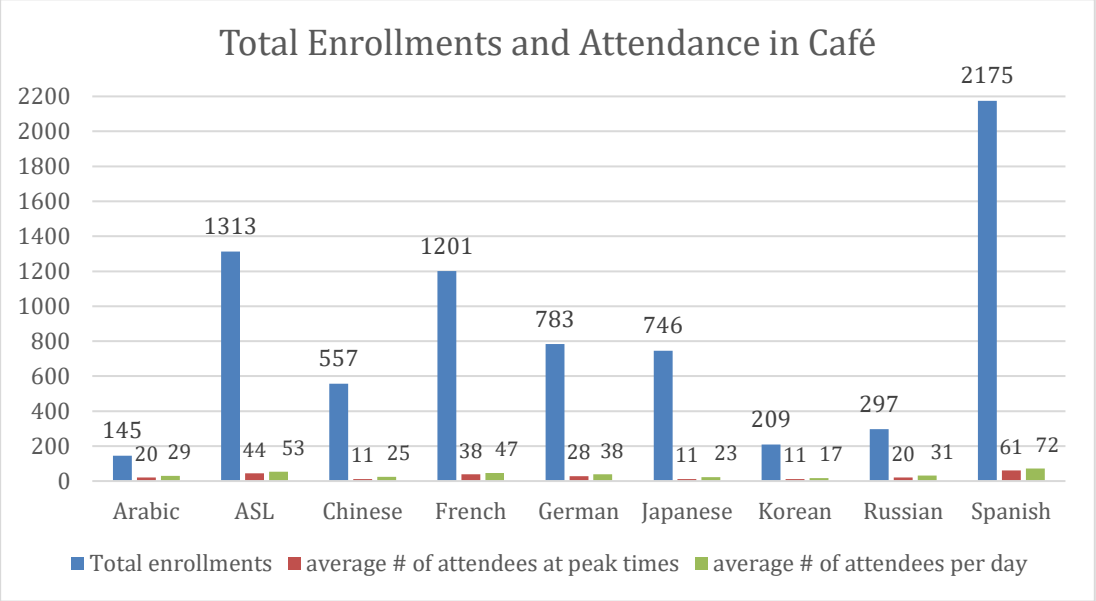

Figure 2. Total enrollments per language (high school and university combined), average attendees per day, and average attendees per peak time (see Figure 1 for peak times).

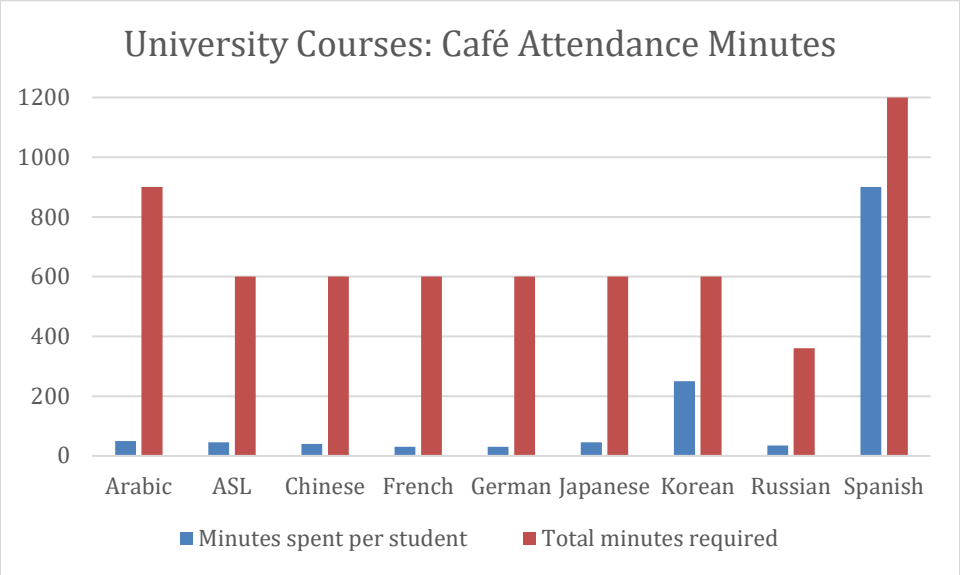

Figure 3. University courses only: Total minutes spent in café per student versus minutes required (as detailed in course content). Korean and Spanish courses appeared to have a less marked disparity between minutes required and minutes spent due to more explicit course requirements for café attendance than other courses.

Perceptions of Users Regarding Effectiveness

Responses compiled from the administered surveys are reflected in Table 2 and Figure 4 (student survey responses), Figure 5 (instructor survey responses), and Table 3 (TA survey responses). Of 146 respondents across high school and university students, 71% of students self-reported participating in the café at least once and 95% indicated they learned something new via participation in the café (mean rating on 1-10 scale was 6.72, SD 2.97). Furthermore, 91% of students rated the usefulness of the café 7 or higher on a scale of 1-10 (mean rating 6.05, SD 2.81). Isolating Spanish 101/102 courses only, 85% of respondents self-reported having participated in the café; it is notable that not all students utilized this resource even though it was a required course element.

Table 2

User Perceptions: Student Survey Responses

Survey Item	Min	Max	Mean	SD
Felt café was useful	1.0	10	6.05	2.97
Learned something new	1.0	10	6.72	2.81

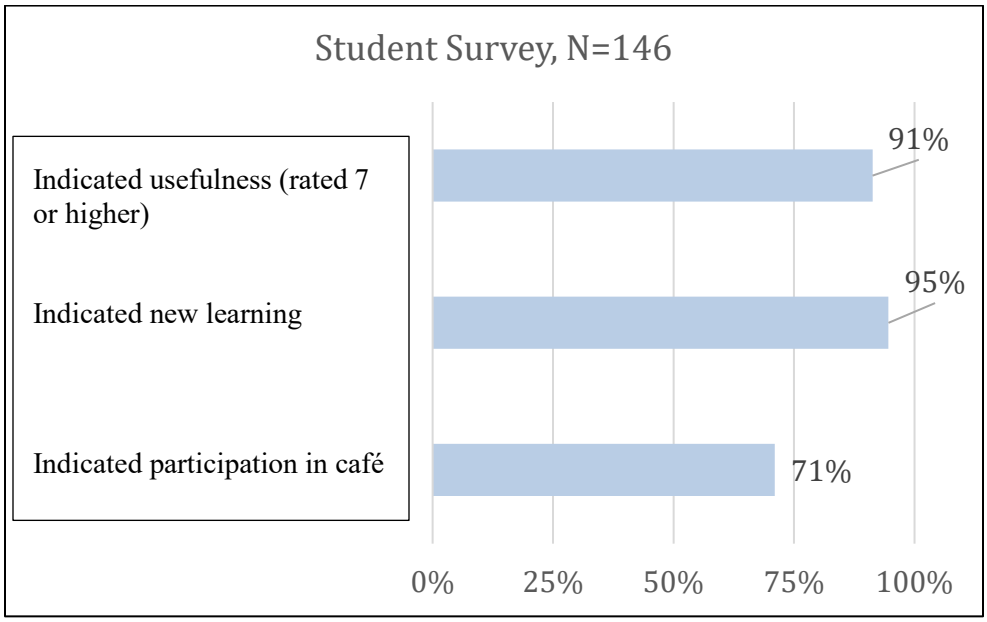

Figure 4. User perceptions: Student survey responses regarding usefulness of the café, whether it helped students learn something new, and whether student participated in the café (146 respondents).

Instructor questions were designed to measure how well teachers felt students understood the expectations of the online course (e.g. required practice interacting together as well as participation in Conversation Café online) and how well teachers felt students used the resources made available to them. Of the 10 teachers who responded to the survey (see Figure 4), 40% (four instructors) felt students were not clear about course expectations. One instructor was unsure (SD 0.7). Only 20% (n=2) indicated they believe students used course resources such as the café, 50% (n=5) indicated they did not know if students used course resources (SD 0.7). Of all teachers who responded, 70% (n=7) indicated they allowed students to use notes in oral

assessments (SD 0.4). This is a negative indicator of proficiency based on Independent Study's assumptions; it is not known how many actually use their notes during exams.

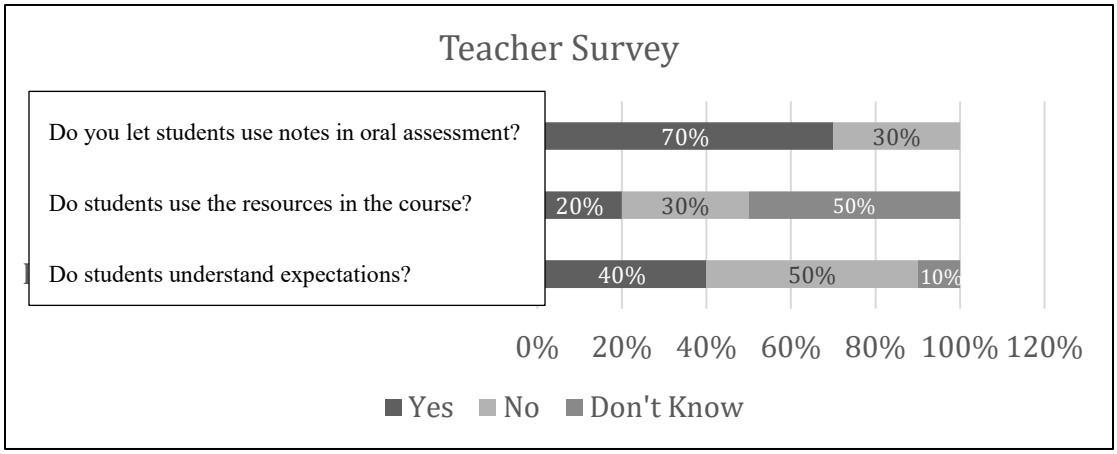

Figure 5. User perceptions: Instructor survey responses. Most instructors allow students to use notes for oral assessment, and roughly half of instructors agree that students use the course resources and know what is expected of them. N=10.

TA perceptions (see Table 3) of how well the café implementation matches the definition in the course revealed a mean score of 4.4 out of 10. The effectiveness of the café in helping students progress toward proficiency yielded a mean score of 4.5, and the overall satisfaction with the café yielded a mean score of 4.7.

While students seemed to be satisfied with the effectiveness of the café, TAs and instructors seemed to be somewhat dissatisfied. Future research would be needed to explore potential reasons for the difference in perceptions.

Table 3

User Perceptions: TA Survey Responses, Rating 1-10 (34 Responses)

	Min	Max	Mean	Std Deviation
Rate how well the implementation of the café matches the definition in the course.	1.0	6.0	4.4	1.2
Rate the café in terms of student progress toward proficiency.	3.0	6.0	4.5	0.9
Rate your overall satisfaction with the café .	3.0	6.0	4.7	0.8

Possible Implications in Terms of Financial Sustainability

To consider financial viability, stakeholders isolated Spanish courses, with the assumption that Spanish courses would need to attain a certain profitability threshold to help subsidize LCTLs which are less likely to be financially viable when considered individually. Table 4 indicates current TA and enrollment ratios in Spanish courses as of June 2017 as well as thresholds needed to attain 0% profit, 5%, and 10% profitability margins (based on the internal financial model used by Independent Study). Note the financial information provided by the Independent Study controller reflecting average number of daily interactions does not impact financial viability, as TAs were working set hours regardless of the number of interactions they had with students.

Given the current enrollments of 2175 at the time financial data were pulled, Spanish courses were approaching 10% profitability threshold. However, the actual numbers reflect there were seven TAs working only 142 hours per month. To achieve 10% profit threshold, the café would need to have fewer TAs working more hours; the institutional value is that the ideal balance would be six TAs working 240 hours per month. Additionally, the actual ratio of enrollments to TAs was slightly lower than a 10% profitability threshold, but it was above a 0%

profit (less than 200 enrollments per TA). To achieve 10% profit threshold, the enrollment to TA ratio would need to increase by 20-25 students.

Table 4

TA and Enrollment Ratios for SPAN 101 and 102

	# of TAs	Employee hours/month	# of students enrolled	Ratio of enrollment to TAs	Average daily interactions per TA
Actuals	7	142	2175	310.7	6.14
0% profit threshold	>6	<10 hr/wk	<2000	<200	
5% profit threshold	6	480	2000	333	
10% profit threshold	6	240	2000	333	n/a

Conclusions

Results of this evaluation reveal the usage of the Conversation Café in Spanish courses to be noticeably higher than other languages offered at BYU Independent Study. This can be attributed to factors such as noticeably higher enrollment in Spanish and the component in Spanish courses requiring frequent participation in the café. The higher time spent in the café over the duration of the course is likely due to the course requirements. However, despite the course requirement to attend the café at least 6 times during the course, not all students self-reported that they participated in the café. Less than 100% attendance may be due to café participation having low impact on students' overall course grade, students feeling they did not need the café, or lack of student value of the café. While the specific reasons are unclear, it

appears that those who did participate in the café valued this activity in terms of usefulness and contribution to learning.

The perceptions of students, faculty, and TAs regarding the effectiveness of the café were inconsistent. In Spanish, where enrollments were highest and students had the most exposure to the café, over 90% of survey respondents indicated they valued the café in terms of usefulness and learning; mean ratings were above 6 for both indicators. However, teachers overall tended to not know or did not think students used the resources made available to them nor understood expectations of the courses (such as attending the café). These perceptions, however, are likely uninformed on these points.

Additionally, TAs rated the café on three criteria all lower than 5 out of 10. They did not appear to feel the implementation of the café aligns with course descriptions, that it's not that effective at improving student proficiency, and that overall the café is less than satisfactory (4.7 out of 10). While students seemed to feel the café was effective, TAs and teachers seem to be less convinced. There is the potential for rater error on the part of any of the participants. A further evaluation effort could explore a correlation between oral assessment grades and student participation in the café to identify if the discrepancy described above is due to severity error on the part of TAs and teachers or generosity error on the part of students.

Regarding the financial impact of the café, this evaluation reflects that current implementation is above 0% profit threshold but below a 10% threshold. There are currently too many TAs working too few hours for the number of enrollments in the Spanish courses to achieve an ideal financial balance. Likewise, the ratio of enrollments to TAs is above 0% profit threshold, which requires a minimum of 200 students to one TA, but if improved slightly would approach the 10% profit threshold. Independent Study identifies acceptable profit thresholds for

courses that are offered; this evaluation was not designed to identify more specific means of affecting financial viability of the intervention.

Future Research

One goal of this evaluation was to compare the face-to-face experience to the online experience (i.e., instruction with and without the café experience) and identify if there is any correlation to café participation and grade improvement or increased proficiency. Independent Study had not yet evaluated face-to-face classes to identify any correlation. Therefore, at this point, survey responses were identified as a means to create a baseline to which the face-to-face classes will be compared. Data comparing the two will be part of future research at Independent Study. Notably, the following languages were identified to be evaluated in subsequent research: Korean 101/102, Spanish 101/102, Chinese 101/102, and French101/102. These courses have an equivalent course online and on-campus; the assessments and content are consistent across delivery platforms. Thus, they present a consistent means of comparing both the campus and online experiences.

This evaluation revealed several gaps in information that merit further research, such as evaluative data for classroom use of the Conversation Café for comparative purposes, indicators affecting perception and actual effectiveness of the café (including specific measures of effectiveness), and factors impacting the usage of the café.

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ARTICLE 2

Exploring Sociocultural Theory Application in Online Language Courses

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Exploring Sociocultural Theory Application in Online Language Courses

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Abstract. Second language education is a necessary admission requirement for many universities across the U.S., as well as a graduation requirement for several high schools. The increasing presence of online education has increased the availability of secondary and post-secondary world language courses in online and blended formats, yet a challenge associated with online language coursework lies in addressing the sociocultural aspect of learning a language. In this type of learning format, it is critical to consider Sociocultural Theory (SCT) concepts such as self-regulation, zone of proximal development (ZPD), and scaffolding. For instance, Zhang (2013) explores teacher-student collaboration in online courses; and Cappellini (2016) has researched scaffolding and the role students assume in the learner community when learning via telecollaboration.

The SCT theoretical framework guided Brigham Young University in developing blended and fully online German courses. The courses use authentic cultural materials, unique technological resources, and social-media-style interventions (synchronous and asynchronous) to provide extensive scaffolding of learning material and a collaborative student environment. SCT-based interventions in the online courses included sentence modeling, use of discussion boards, film recitations, and conversation café (an online real-time speaking lab). This paper reports on the approach the university took to the course development, the sociocultural aspects of the interventions implemented, and preliminary evaluative findings regarding the effectiveness of the interventions. Preliminary findings suggest a slight improvement of student proficiency, as demonstrated in German 201 final exam scores and German 202 pre-test scores; however further research and analysis is necessary to validate these preliminary findings.

Keywords**:** blended, online, sociocultural theory, language learning.

1 Introduction

According to Sociocultural Theory (SCT), learning is a social practice. In the early 20th century, Len Vygotsky presented a Sociocultural Theory of Cognitive Development, in which he suggested physiological development alone does not direct the development of a child's knowledge and skills. Rather, he claimed social interaction is what promotes development, that social interaction is not only a contributor but is fundamental to cognitive development. Vygotsky's model (1978) includes the notion of proximal development: as students interact with things or people around them, they will have learning experiences that stimulate cognitive development. As opposed to behaviorist stimulus-response theories of learning, Vygotsky's model is couched in a constructivist paradigm. Language is the tool for constructing thought. It is a social construct, where the expert supports the novice. By interacting in their social environment, learners construct their knowledge of the world around them; thus, proximal development.

Another aspect of SCT is scaffolding. Scaffolding includes supports and helps that guide a student progressively toward a higher cognitive level. Gradually, scaffolding is removed, guiding the student toward greater independence in their learning.

The Zone of Proximal Development (ZPD), a significant aspect of SCT, is the area just outside of a student's comfortable ability. It's the area where students may not be immediately proficient without support or scaffolding, but accomplishing proficiency independently is within their reach. Tasks in the ZPD are not so difficult that the student gives up or refuses to try and not so easy that the student can achieve them with little to no assistance.

An instructor can, for example, couple scaffolding with awareness of a student's ZPD to provide just enough assistance to stimulate learning and development. Activities and interactions in a course can be designed with careful scaffolding to guide students to higher levels of language

proficiency. Feedback and interaction from experts help novices progress beyond their level of comfort and into their ZPD. Cognitive ability is promoted through development of language and social interaction.

In fact, Vygotsky submitted that language only fully develops through practice and interactions with others. Thus the importance of linguistic interaction, feedback, and scaffolding to help a learner develop their language skills becomes paramount. Drawing on concepts of SCT, the American Council on the Teaching of Foreign Languages (ACTFL) suggests that practicing speaking/listening and having live interpersonal interaction are key to learning a second language (2006).

Traditional classroom environments are assumed to provide a wealth of opportunities to interact, fostering cognitive and linguistic development. Student who are physically close to one another will, it is assumed, naturally interact socially. Likewise, the assumption that collaborative activities and projects are facilitated by being present together physically. Can the same be said of online language learning where the transactional distance is increased?

Recent discussion of transactional distance (Moore, 1993), simply stated, explores the impact of teachers and learners engaging in a setting outside of the traditional classroom. “In our efforts to explore various aspects of learner autonomy in distance teaching and learning programs, we have tried to prepare a system that makes it possible to order programs according to the kind and extent of autonomy the learner is expected or permitted - to exercise” (Moore, 1972). Increased prevalence of all forms of distance education, instructional methods where teaching and learning behaviors are executed apart from each other and require some means to facilitate the interaction, demands further evaluation of the theory of transactional distance. Research in the 1990’s and 2000’s globally analyzed the effect of transactional distance on student learning in distance and

online coursework. Specifically applied to the language context, one element of transactional distance would reasonably include sociocultural interaction and dialogue. Moore points out that dialogue, a fundamental part of language and communication, is synergistic in nature, as the comments of each person build on those of the others in the dialogue. The role of participants in a conversation may materialize based on each participant's mastery of the language; some may take on an expert role while others may take on novice roles, seeking more explanation, modeling, and feedback from the expert participants in the conversation.

Cappellini (2016) considered relations between the sociocultural and the language learning aspects of teletandem Chinese and French language learners. This study underscored the different roles students take on (expert versus novice) as they interact with each other in various language learning contexts. Clearly, there is evidence that sociocultural aspects of learning can be present in a setting other than the physical face-to-face classroom, such as in an online, blended, or teletandem setting.

Likewise, Zhang (2013) evaluated elements of SCT in a collaborative language learning setting; findings revealed that the implementation of scaffolding, ZPD, and self-regulation in online courses can affect teacher-student interactions. Zhang further mentions the critical nature of considering SCT in online and blended settings. The assumed social elements of classrooms may not be as present in online/blended settings. In the online classroom, where interaction may be limited and may not be synchronous, social linguistic development certainly needs to be carefully considered.

2 Materials and Methods

Noting the challenge of dialogue and interaction in asynchronous online language courses, Brigham Young University developed online and blended world language courses that include

face-to-face/synchronous and asynchronous interactions. Online courses do not have any in-person course sessions but do have synchronous online interactions; blended courses may have one or more in-person meeting in addition to online content and activities which may be synchronous or asynchronous. Face-to-face (F2F) activities are all conducted synchronously in a traditional classroom setting.

The online and blended courses were designed to include several types of interventions in order to provide opportunities for extended dialogue and practice speaking/listening. Special attention was paid to achieving the three communicative modes suggested by the American Council on the Teaching of Foreign Languages (2006): interpretive, interactive, and presentational.

This paper focuses on SCT-based interventions in one series of courses: intermediate German (201 and 202) in both in blended and online formats. The German department assumed elements of SCT to be naturally present in classroom versions of German 201 and 202, but the same assumptions were not held regarding online learning. A series of interventions were implemented in the blended and online courses in order to address the potential sociocultural deficiencies; this paper evaluates the sociocultural nature of these interventions, initial findings on the impact of the interventions, and student feedback regarding the social nature of the online/blended courses.

Note that while I do not have specific details of what sociocultural elements were present in face-to-face (F2F) versions of the courses, the department did indicate the interventions added to the online and blended versions were not part of the standard F2F curriculum. Thus, the questions considered for this paper are:

Q1: What evidence of SCT is present in online/blended interventions introduced in German 201/202 courses?

Q2: What is the correlation of student scores among face-to-face, blended, and online sections?

Q3: What is the student feedback regarding interaction, feeling connected to others, or the general social nature of the blended & online courses?

2.1 Online and Blended Course Development

The following description of the course development is designed to provide brief background context. BYU's German 201 and 202 courses as administered on campus in F2F format were developed as fully online, asynchronous courses in 2013. A professor from the academic department and an instructional designer worked collaboratively to develop the courses. One year later, a blended version of the German 201 course was developed, with the intent that the blended version would replace the F2F version of the course on campus. Although the blended 201 replaced the F2F version, 202 continued to be administered on campus as a F2F for three semesters.

The department measured student proficiency gains as they exited the blended 201 course and entered the F2F 202 course via an in-house developed final exam and pre-test. They intended to compare student readiness for 202 upon exiting *201 blended* to those of students exiting *201 F2F*. After three semesters of 201 being administered in a blended format, a blended version of German 202 was developed.

2.2 Description of Interventions

German 201 and 202 (intermediate level) courses use SCT-inspired interventions, including sentence modeling, film recitations, grammar mastery quizzes, and a Conversation Café. These course elements were developed into each unit of the courses in a systematic and consistent manner. They are present in both the online and blended courses. Each intervention is described in more detail here.

Sentence modeling: students are given an example sentence from an authentic German text which features specific grammatical structure. Students are then directed to rewrite the sentence in a specific way. The first example of this happens early in the course:

> Write your own creative sentences based on these model sentences in German. Imitate the structure and style. Submit your sentences as a "new thread." Click on the rubric button below to see how your entry will be graded. (Imitating German Sentences 1.9, n.d.)

As students develop in grammatical skills and expertise, they are instructed to write increasingly more advanced sentences. Eventually, they are instructed to craft a longer, more sophisticated passage:

> Making more sophisticated paragraphs: Take the following paragraph (that sounds like it was written by a third-grader) and rewrite it so that it sounds elegant and sophisticated. Keep the same ideas, but connect sentences together. Add or delete words and phrases. Use adjectives or adverbs to add interest. Use word order to emphasize important parts. I suggest you copy and paste the paragraph into word, rework it, and then click open below and paste your version into the submission field. (Crafting Paragraphs, 4.5, n.d.)

Course content provides increased instruction and practice activities for students to learn and become comfortable with increasingly advanced writing. These scaffolded assignments provide modeling for students to follow, gradually removing scaffolds as students gain more experience using increasingly advanced grammar in their writing.

The instructor-provided sentence models are posted as the start of a discussion board “thread.” Students reply to the thread with their versions of the sentences. Once they have posted, the posts

of others who have gone before become visible. The students then have the opportunity to post their reaction and feedback to the posts of their peers.

The instructor-provided models are the scaffolds. As the scaffolds are removed, students comment on each other's posts and gradually develop more language independence. Students actively interact with their peers, both giving and receiving feedback on the sentences posted, exhibiting greater independence. Additionally, the instructor (expert) provides guidance and feedback globally to students (novice) regarding strengths and weaknesses in the sentences they posted.

Film recitations: students have a culminating project which integrates speaking, writing, and presentational skills. Students are assigned to choose a passage of a film and write an adaptation of the passage that they will perform. Sentence modeling assignments throughout the course become scaffolding that prepares students to complete this exercise without instructor or peer feedback and support. Their culminating project is performing the film passage they wrote and posting it to a private YouTube channel, a live media streaming forum. Students are then instructed to watch each other's performances and provide feedback (thumbs up, thumbs down, extended commentary, etc.), much as they might do in a F2F classroom session or a more traditional peer-evaluation. The activity takes on a social media flavor, as well. Students may choose to make their film presentation public on YouTube, thus giving their production a broader audience and inviting reactions from viewers not influenced by the awareness of scope and expectations for the assignment. In fact, due to the global nature of YouTube, it is possible German speakers anywhere in the world might discover the presentation and comment on it.

Grammar Mastery (GM) quizzes: GM quizzes are objective quizzes designed to help students master specific aspects of German grammar. Based on the principle of self-regulation, students

may take the quizzes an unlimited number of times until they feel they have achieved mastery. The quizzes are designed to be slightly above the average level of difficulty, pushing students into their ZPD. Students are required to achieve 80% or higher to move on in the course. If they immediately achieve the minimum 80%, they can move on; if they don't, they may retake the quiz as many times as they need to until they achieve 80%. Even after passing the quiz, they can go back and re-access the quiz and retake it, if they so desire. Course data show a small percentage of students retake the quizzes until they get 100%, even though only 80% is required. Data also indicate some students retake quizzes in the few days preceding the time they take the final exam. Each quiz focuses on grammar points presented in the unit content, practiced in the sentence modeling assignments, and emphasized in further oral and written assignments in the unit; this is another evidence of the application of careful scaffolding to guide the student's development. Although GM quizzes are not directly tied to production of language, Vygotsky sees language use as a means for self-regulation of behavior; it becomes an accelerator to understanding. This becomes evident when students apply their learning in the Conversation Café context.

Conversation Café: the Conversation Café is a live, online speaking lab where students are instructed to discuss various topics. A teaching assistant (TA) moderates the forum and helps guide conversation and dialogue among participating students. The TA is positioned as the expert, and students initially may rely heavily upon feedback and explanation from the TA. As students progress through the course, the TA increasingly directs students to answer each other's questions rather than relying on the TA's expert feedback. One goal of the café is to stimulate peer-to-peer interaction and to apply the language in unscripted, spontaneous dialogues. As peers interact, they provide feedback to one another, engage in turn-taking dialogue, and refine their

communication based on responses and feedback. Scaffolding, in the form of GM quizzes and unit assignments, provides students with linguistic building blocks that allow them to apply material via oral production of language. Speaking in free dialogue and providing unscripted feedback to each other eases students into their ZPD; the TA helps guide students when they "get stuck" and helps them avoid frustration they may encounter as they tackle increasingly complex language tasks.

2.3 Participants and Measures

All students exiting German 201 and 202 on campus take a final exam. Likewise, upon entering 202, all students take a diagnostic pre-test, used to identify student readiness and potential areas of focus for language review. Data collected for this paper comprised the enrollments in German 201 and 202 over a set period of time; sample size was 43 students, of which 15 were male and 28 female. The dispersion of students in each course type was 17 classroom students, 14 blended students, and 12 online students.

The 201 final exam is proficiency based and consists of selected response and short response items. The 202 pre-test is diagnostic in nature, also consisting of objective selected and short response items. It is used to assist faculty in identifying student needs and adapting coursework to address those needs. Neither assessment has been externally validated, nor have they been evaluated for reliability and objectiveness. Nonetheless, the department does value the scores from these exams for proficiency and diagnostic applications.

This study revealed several opportunities for future research, which are discussed further in the conclusions section of this paper.

3 Results

Various sources of information were used to answer the questions for this study. The sample was purposive, pulling information from students enrolled in German 201 and 202 during the time of introducing the specific online/blended interventions.

Q1: What evidence of SCT is present in online/blended interventions introduced in German 201/202 courses? The source for this information came from instructional designers who isolated the interventions in the blended and online sections that did not exist in the F2F versions of the courses. As described in the methods section of this paper, I found each of these interventions were clearly couched in sociocultural theory.

Q2: What is the correlation of student scores among face-to-face and blended/online sections? The source of this information was student scores from the German 201 final exam and German 202 pre-test. The final exam and pre-test assessments were not externally validated nor reviewed for reliability; based on preliminary observations, future research with controlled variables and validated assessment would be merited.

Despite the validity factor, scores were compiled and evaluated, as this is the measure the department currently uses to assess student proficiency in each course type (F2F, online, blended). Prior to introducing German 201 in its blended format, the average student score on the pre-test for German 202 in the classroom was 83.2. The average final score in German 201 was 81.1 (see Fig. 1). Once the blended and fully online versions of the courses were launched, the average final grade for German 201 was slightly lower than the previous classroom average score (78.3 blended and 79.6 online). The pre-test in German 202 was higher than the previous average classroom score in the blended section (mean score of 85.1) and slightly lower in the online section (resulting in a mean score of 82.9).

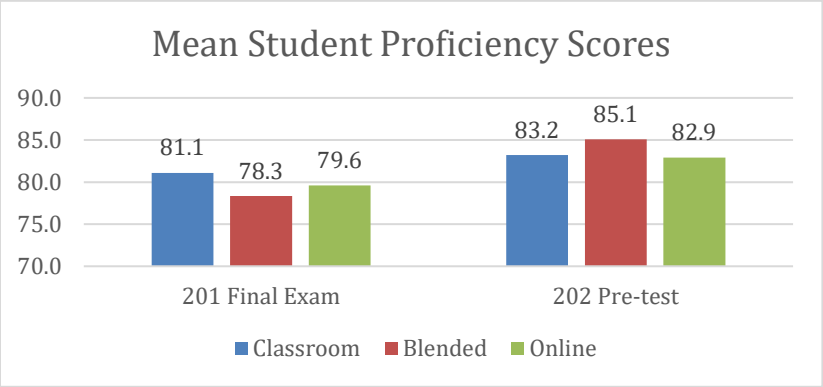

Fig. 1. Student proficiency scores (mean raw scores) from German 201 final grade and German 202 pre-test, compared across classroom, blended and online formats; N=43.

An Analysis of Variance between all three groups on each test as a separate tests revealed no significant differences (p=.760 on German 201 final, and p=.748 on German 202 pre-test). See Table 1.

Table 1. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Score_Pre	Between Groups	38.362	2	19.181	.292	.748
	Within Groups	2625.167	40	65.629		
	Total	2663.529	42			
Score_Final	Between Groups	58.986	2	29.493	.277	.760
	Within Groups	4264.623	40	106.616		
	Total	4323.609	42			

A Tukey post-hoc test running multiple comparisons evaluated 201 final exam and 202 pre-test scores for each group of students (classroom, blended, and online). Findings again revealed no statistically significant difference in student scores across each course type (see Table 2). On the 201 final exam, comparing classroom to blended yielded a p value of .741; comparing classroom to online yielded a .922 p value. Comparing classroom to blended and online scores on the 202 pre-test yielded p values of .796 and .995, respectively.

Table 2. Post-Hoc Test; Multiple Comparisons

Post Hoc Tests; Multiple Comparisons; Tukey HSD

Dependent Variable	(I) Section_Type	(J) Section_Type	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
Score_Pre	classroom	blended	-1.88672	2.92375	.796	-9.0029	5.2295
		online	.27721	3.05445	.995	-7.1571	7.7115
	blended	classroom	1.88672	2.92375	.796	-5.2295	9.0029
		online	2.16393	3.18699	.777	-5.5929	9.9208
	online	classroom	-.27721	3.05445	.995	-7.7115	7.1571
		blended	-2.16393	3.18699	.777	-9.9208	5.5929
Score_Final	classroom	blended	2.75950	3.72651	.741	-6.3105	11.8295
		online	1.49235	3.89309	.922	-7.9831	10.9678

	blended	classroom	-2.75950	3.72651	.741	-11.8295	6.3105
		online	-1.26714	4.06202	.948	-11.1538	8.6195
	online	classroom	-1.49235	3.89309	.922	-10.9678	7.9831
		blended	1.26714	4.06202	.948	-8.6195	11.1538

Q3: What is the student feedback regarding interaction, feeling connected to others, or the general social nature of the blended & online courses? Student open-ended responses on end of course surveys were compiled in aggregate form and were the source for this information. The open-ended question asked students to provide any further comment on how connected they felt regarding their interaction and connection with other students, the TA, and the instructor (in the blended and online courses). Of the 43 students in the sample, only 19 completed the open-ended responses in the end of course survey. Student feedback was categorized and quantified (Fig. 2).

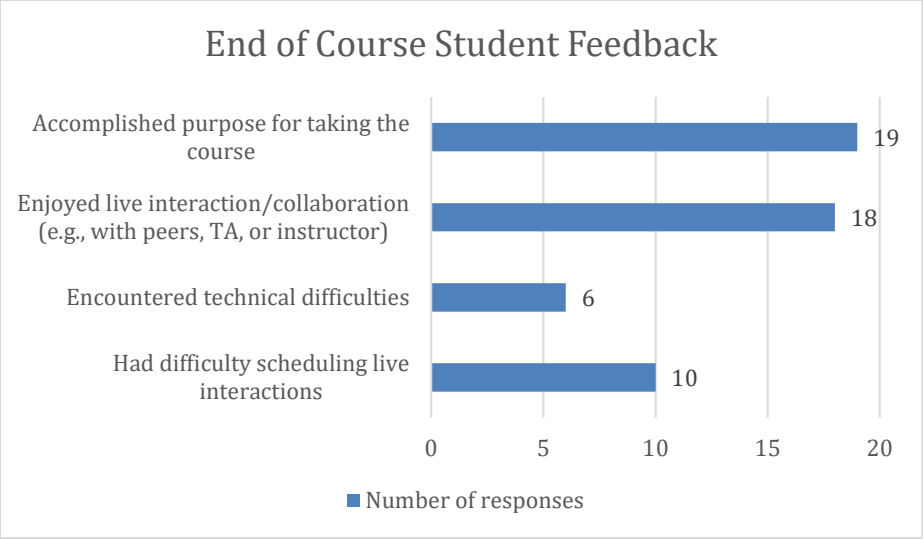

Fig. 2. Open-ended responses to end-of-course surveys were compiled and categorized into four main groups.

Nineteen students filled out open-ended responses on the end of course survey; there was significant favorable response regarding social/interactive elements of the courses, although difficulties with scheduling and technical aspects were cited. Technical glitches can fluster students who are already nervous to speak in a public setting (online or in the classroom). While the purpose of this paper is not to focus on reasons why students may or may not have had a positive experience in regard to the sociocultural elements of the German courses, this survey feedback was noted and impact on students' affective filter will be pursued in more detail in future studies. Additionally, response rate on the open-ended questions was low; over half of total sample size left the open-ended questions blank or entered a response of "not applicable."

4 Limitations

Some key limitations exist in this study. The primary intent of the study was to examine the sociocultural elements of the interventions used in the blended and online courses, to evaluate preliminary findings regarding effectiveness, and to collect student feedback regarding the social nature of the course. The limitations exist notably in the evaluation of preliminary findings and the

student feedback. First, this was not a controlled experimental study nor were validated assessments used, thus initial statistical analyses pertaining to student proficiency scores are not valid measures to inform further action. Additionally, student feedback in the open-ended response sections of the final course survey was limited; less than half of the sample size responded. Larger sampling of respondents would be necessary to validate student feedback conclusions.

5 Conclusions and Recommendations

My evaluation of the development and deployment blended and online German 201 and 202 courses was that the interventions were indeed grounded in SCT theoretical framework. There was evidence of sociocultural theory including scaffolding, social-collaborative content and learning activities, self-regulated quizzes, and awareness of ZPD in each of the interventions.

Course learning materials and activities which are scaffolded to gradually increase in difficulty and require incrementally more from students with incrementally less support from the course content, TA, or instructor. The learning material designed to foster a collaborative student environment includes discussion board activity, film recitations, and Conversation Café. Consideration of ZPD and guiding students' linguistic development is evident in GM quizzes, which ultimately prepare students for Conversation Café interactions. It's also evident in sentence modeling, which eventually evolves into making sophisticated paragraphs and ultimately a script for the film presentational assignment.

Preliminary findings of student proficiency scores, as demonstrated in German 201 final exam scores and German 202 pre-test scores, did not reveal a statistically significant difference from 201 to 202, nor across delivery types. Because this was not a controlled experimental study, further research and analysis are necessary to validate the assessments and to isolate extraneous variables.

End of course student surveys revealed largely positive feedback regarding live interaction and collaboration; however, I recommend further research into causes for the negative feedback and potential impact of technical issues on student performance. For instance, what impact did technical difficulties while engaging in collaborative activities have on the affective dimensions of language learning? Likewise, when classroom teachers encounter technical difficulties with group activities, is there an impact on affective dimensions of student learning?

This study revealed several areas for potential research. For instance, one could evaluate the impact of each intervention (sentence modeling, discussion boards, film recitations, grammar mastery quizzes, and conversation café) on student proficiency. Future research might also identify correlation between delivery type (classroom, blended, or online) and proficiency, using validated assessments, larger samples, and controlled variables.

In summary, despite the assumption that SCT elements are present in F2F instruction, this is not necessarily an assumption in blended and online coursework. This study revealed significant evidence of SCT in the online and blended German 201 and 202 courses, tied directly to specific interventions implemented in the courses, and suggested evidence worthy of further research regarding intervention and effect on student language proficiency.

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ARTICLE 3

Exploring the Student Experience in Online and Face-to-Face Speaking Labs: A Case Study

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Abstract

With the growth of technology-enhanced language learning comes increased use of online applications and interventions in language education. A private U.S. university implemented an online version of their traditional face-to-face speaking lab among intermediate to advanced French students. This article considers student satisfaction with the online and face-to-face labs as well as preference for one type or the other. Findings reveal a preference toward and higher satisfaction rating of the face-to-face lab; however, negative student comments regarding the online setting tended to focus on elements of convenience rather than aspects essential for learning.

Keywords: online, speaking labs, student experience, language learning

Introduction

With the requirements of high schools and institutions of higher education for students to complete foreign language coursework prior to college admission and increasing concerns about the cost of language programs (Flaherty, 2018) comes increasing attention paid to ways in which students might study foreign languages (Kern, 2014; Redden, 2017). Notions of sociocultural theory (Vygotsky et al., 1978), input hypothesis or i+1 (Krashen, 1981), transfer (Bransford & Schwartz, 1999), proficiency (Omaggio, 1983), corrective feedback, and interaction or collaboration are seminal contributions to the literature pertaining to learning processes in general, as well as to the specific lens used to examine language learning.

In an effort to contribute to a developing body of literature surrounding evolving language education, the Department of French and Italian at Brigham Young University (BYU) engaged in preliminary research tied to one specific intervention, notably their speaking labs for students in advanced French courses. The department set up an online speaking lab in addition to their traditionally offered face-to-face lab. The online lab followed the university's Conversation Café model (Quinlan, 2018), which involves students gathering in an online forum moderated by a teaching assistant (TA). The perception was that although the online lab may lack a physical sense of community and collaboration, interaction and small group work would still provide valid benefits to language learning and a positive student learning experience.

Some of BYU's French and Italian (FRIT) faculty expressed concern about having an online speaking lab without express teacher/instructor mediation; however, consensus was reached that there may be merit in a small group forum that allows peer-to-peer interaction. As in the face-to-face speaking lab, the instructor/TA role was essential in the online speaking lab. Instructors/TAs were expected to provide comprehensible input on a regular basis, helping

students gain exposure to natural use of the language (e.g. providing instructions, talking about personal experiences, and discussing specific topics in the target language). Additionally, instructors/TAs oversaw, evaluated, and provided feedback of student speaking in paired or small-group activities. The effectiveness of the Conversation Café model relies heavily upon the notion that an expert (normally instructor or TA) will moderate the forum, monitoring virtual rooms where small group activities are taking place, providing feedback and, where appropriate, offering various forms of correction.

With the backdrop of technology-infused language learning, the need for collaboration in language learning, along with the desire to promote proficiency and a positive student experience, this case study was designed to describe the student experience in online and face-to-face speaking labs in advanced French language courses at Brigham Young University. This article explores one particular element of language learning - speaking practice - as well as the experience and satisfaction of students in online and face-to-face foreign language speaking labs. This qualitative study addressed the following research questions:

- To what degree and in what ways was the experience in online and face-to-face speaking labs positive or negative for students?
- What differences were there in student satisfaction with online versus face-to-face speaking labs?

Review of Literature

Over the last several decades, a shift has occurred in language instruction from a focus on accuracy, such as in the grammar-translation method, to proficiency. *World Readiness Standards for Learning Languages* (National Standards Collaborative Board, 2015) is a publication which delineates specific proficiency measures and has become recognized as a seminal resource in the

field of language education. The impact of the revised *Standards for Foreign Language Learning in the 21st Century* produced by the American Council on the Teaching of Foreign Languages (2006) is evident in the abundance of literature discussing proficiency in language learning (Bialystok & Feng, 2009; Cohen & Macaro, 2007; Geva, 2006; Hulstijn, 2007; Thorne & Reinhardt, 2008). Yet the hunger for accuracy is not completely quelled by the ambitions of proficiency. Over three decades ago, Omaggio (1983) pointed out, "This concern for developing accuracy while maintaining a communicative environment for learning is central to any approach that is oriented toward proficiency goals" (p. 96). More recently, Skehan (2009) discussed the relationships between task difficulty, complexity, and accuracy in language performance. His article focuses on specific lexical aspects of language performance more than notions of generalized proficiency. Further, De Jong and Hulstijn (2009) explored the relationship of fluency ratings (sometimes confounded with proficiency ratings) to accuracy and lexical aspects in oral production of language, noting that elements of accuracy *and* proficiency can be predictors of fluency. De Jong (2016) discusses fluency from an applied linguistic view as an aspect of proficiency and acquisition of the second language. This doesn't eliminate the view of accuracy in favor of proficiency but rather considers the complementary role each plays.

As foreign language instructors continue to grapple with the relationship between accuracy and proficiency, a debate surrounding the use of various tools and approaches to support language instruction has emerged. On a broader scale, technology researchers point out the need to pay attention to what tools will contribute to learning. Schwartz, Bransford, and Sears (2005) underscore the many elements that may contribute to learning: "We suspect there are very many mechanisms that come into play during innovative, interactive experiences that can prepare people to learn" (p. 62). Koehler and Mishra (2009) reference the need for mechanisms

and tools to be integrated. Their TPACK model frames the theory of integrating technology, content and pedagogical knowledge for cohesive and effective instruction. Beyond implementation of specific tools or technology is the notion of delivery platform and teaching approach (e.g., blended, flipped, fully online, teletandem). Increasing numbers of courses are offered in flipped, blended, and online formats (Bates et al, 2016; Horn & Staker, 2014). Multiple studies have attempted to quantify the effectiveness versus weaknesses of online learning (Ed, 2008; Hart et al., 2018; Johnson & Cuellar Mejia, 2014; Kaupp, 2012; Parsad & Lewis, 2008; Xu & Jaggars, 2011, 2013). The impact of the developing role of technology in education likewise touches the specific nuances of second language education.

Interaction and A Sense of Community

Many studies evaluating effectiveness of online education underscore the challenges and weaknesses of online learning, citing a lacking sense of community, decreased collaboration among students, increased drop-out or withdrawal rates, and inadequate timely feedback from instructors to students (Allen & Seaman, 2013; Hart et al., 2018; Parsad & Lewis, 2008; Xu & Jaggars, 2011, 2013, 2014). Notably in language learning, the elements of interaction, collaboration, and feedback are critical in building proficiency. Philosophers such as Vygotsky et al. (1978) and Krashen (1983, 1985) would likely agree that meaningful input is critical to students' cognitive development as well as to their language learning.

Likewise, Bowerman (1978), Swain (2006), and Pica (1994) point out that connections, collaboration, and interaction are critical to language acquisition. Although Bowerman’s study considers linguistic relationships and connections in semantic development, it also implies the necessity of human interaction as well as interaction with the environment. It’s important to consider these types of interaction as children develop their understanding of everything they

experience; their interactions with environment and with others are an inextricable part of their developing semantic base.

It is certainly important to consider studies exploring the effectiveness of online education, the need for collaboration in language learning, and the role of technology in language learning and development. These studies hypothesize about the impact of technological interventions in online language learning settings. Increasing research examining the effectiveness of language learning which is mediated by various technological interventions is emerging (Godwin-Jones, 2013, 2014; Lai, 2013; Thorne, Black, & Sykes, 2009; Ushioda, 2013). Likewise, the questions of interaction and collaboration arise when considering blended and online language learning, largely due to the stigma online learning carries of being solitary or autonomous in nature. Scholars often attempt to quantify the value or disadvantage to students in delivering world language coursework in online or blended formats, including the role of collaboration or group work in such settings (Cappellini, 2016; Dongyu et al., 2013; Thorne et al., 2009; Thorne & Reinhardt, 2008).

Small Group Work

Research surrounding small group work, as opposed to exclusively teacher-led work, was conducted by Pica and Doughty in the 1980s. In the text *Teaching Language in Context* (2007), Ommagio summarizes some of the results of the study in the following way (emphasis added)

> Pica and Doughty did *not* find support for their hypothesis that *student talk* would be more grammatical in the teacher-fronted classroom activities; in most cases, student talk was not significantly different in terms of its grammaticality in the teacher-fronted activities from what it was in the group activities . . . However, the authors did find that "individual students appeared to have more opportunities to use the target language in

> group than in teacher-fronted activities, through either taking more turns or producing more samples of their interlanguage" (p. 95).

Swain (1998) discusses the benefits of collaboration in language learning, suggesting that one benefit of group work is that it can stimulate metatalk, or the language used to reflect on language. She cautions, however, that students may teach each other the wrong thing. In one study, she notes of students: "They learned, but they learned the wrong thing. Teachers' availability during collaborative activities . . . [is a] potentially critical [aspect] of student learning" (p. 80). More recently, Mayo and Zeitler (2017) explore the difference between performance of students in pairs and groups for language learning, suggesting that group work may in fact lead to slightly better results than pair work, especially "as the different members obtain benefits from their peers' linguistic knowledge" (p. 1). The motivation to appropriately engage in group work is a factor that cannot be ignored. For instance, one student in a group might not care if she learned the language so long as she received an acceptable grade, whereas another student might be motivated by the intrinsic desire to learn the language (Lantolf, 2000). This nuance may affect the way students interact in group work, as well as the quality of peer knowledge that is shared. Lantolf references a study by Steve Thorne where he analyzed student behavior in online group work; he points out activities may play out differently in when mediated online versus in the classroom or a face-to-face/physically proximate setting. In an effort to contribute to the literature analyzing technological interventions in language learning, notably in dyad or group work, this study explores face-to-face and online speaking labs.

Method

This study used a case study approach with the bounded unit being students at BYU taking French 321 during a given semester; this consisted of four sections of advanced French

students with a combined enrollment of 54. The French and Italian department administered a questionnaire to students to evaluate their experience in the two speaking lab environments: face-to-face and online.

Participants

The study used a convenience sample of students taking French 321 at BYU. Two sections of the course participated in a face-to-face speaking lab, and two sections participated in an online speaking lab. The requirements for attendance in the lab and objectives of lab participation were the same across all groups. In addition to comparable lab attendance requirements, participants were considered representative of the sample being studied (i.e., students in advanced language courses participating in a speaking lab). Likewise, preliminary proficiency and background testing revealed students were starting out the semester at similar levels in terms of proficiency and previous experience with the language (see Table 1). In other words, there were no students who were particularly more or less proficient than the rest of the sample. This is important to note, as a student who has had particularly more experience with the language may express more or less satisfaction with a speaking lab than peers who have had limited prior exposure to the language. Additionally, students who are more or less proficient in the language might participate more or less in the speaking lab, regardless of delivery type. For this study, I used existing data in which 20 student records included complete data/responses in the end-of-course survey; 13 participated in the face-to-face lab and seven in the online lab

Group one participated in the face-to-face speaking lab. They were required to attend the speaking lab a minimum of four times for a minimum of 15 minutes per session during the course of the semester.

Group two participated in the online speaking lab. They were likewise required to attend the speaking lab a minimum of four times for a minimum of 15 minutes per session during the course of the semester. The demographics for both groups is listed in Table 1.

Table 1

Student Demographics: Age and Experience with Language

	Average age	Mean experience with language (years)
Group 1 (face-to-face)	20	8.8
Group 2 (online)	21	5.0

Settings

The intervention being examined in this study involves the two distinct settings for speaking labs: online and face-to-face. However, all sections of French 321 at BYU share the same learning objectives, regardless of whether they utilize an online or face-to-face (F2F) speaking lab. These outcomes, listed in the course syllabus, drive the instructional activities in all sections of French 321. The outcomes tied to oral proficiency include

> *Advanced Functions in Speech and Writing:* Students will narrate and describe in the present and past time frames, use connected discourse, and acquire strategies for managing communicative complications in French. *Language Accuracy:* Students will demonstrate proper use of grammatical, lexical, phonological and stylistic features of the French language. (Brigham Young University, n.d.)

Setting one. The face-to-face (F2F) speaking lab was hosted in a small room on campus with two chairs arranged around a round table. One teaching assistant (TA) was assigned to facilitate these speaking labs. Students signed up for a time to come to the lab using an online scheduling software; each session was a one-on-one experience with a TA and was scheduled for 15 minutes. As described in the course syllabus, students were expected to come to the lab prepared with prompts from their instructor. Students in sections of French 321 with a F2F speaking lab were awarded participation points for attending the lab at least four times throughout the semester; lab attendance coupled with classroom attendance constituted roughly 10% of the students' final grade. Students were required to attend the lab at least once per month and were asked to submit a written paragraph-length report about their participation each time they attended the lab. They were awarded extra credit points if they attend the lab more than once per month.

Setting two. The online speaking lab took place via a web-conferencing software. One TA, not the same as the F2F TA, was assigned to facilitate these speaking labs; each session was not limited to a single one-on-one experience. The online speaking lab followed the format of BYU Independent Study's Conversation Café (Quinlan, 2018). Students used a scheduling software to sign up for a time to attend the online lab. More than three students were allowed to join any given session being hosted; however, only three students were allowed to reserve the time and thus dictate the topics covered in the conversation.

As described in the course syllabus, students in the online lab were required to attend a minimum of four times throughout the semester, paced at roughly once per month, and were asked to submit a paragraph-length report of their participation each time they attend the lab. Conversation Café (or online speaking lab) participation counted toward roughly 10% of the

students' overall grade. Students were allowed to attend more frequently than once per month; however, extra credit is not awarded. Although the general integration of the lab into the course and the impact on a student's grade were similar, there are a few differences between the F2F and online speaking labs.

Due to the nature of the Conversation Café (Quinlan, 2018), the online lab was designed to facilitate peer-to-peer communication rather than be a one-on-one interaction with the TA, allowing more than one student at a time but not necessarily requiring multiple attendees at once. Unlike the online lab, the nature of the physical space determined how many students could participate in the F2F labs. Because there are other schedule demands for the physical lab space, the F2F lab could only be offered a set number of times per week; this potentially limited participation based on student schedules aligning with lab availability. Likewise, the space was physically very small which limited the number of students that could reasonably be in the room at one time. It was most appropriate for only two people. The online lab, however, did not have physical space limitations, thus facilitating multiple students attending at once.

In terms of staffing, the same approach was taken for F2F and online labs. The TAs who staffed each lab (online and F2F) were not the same; however, they both received the department's standard TA training for working in speaking labs. The online TA received additional training on the web conferencing software and moderating group discussions in an online forum. The trained TAs moderated the labs and interacted with students in the lab environment. The primary characteristics and features of the F2F and online speaking labs are summarized in Table 2.

Table 2

Online and F2F Lab Features

Feature	F2F	Online
Minimum attendance requirement (monthly)	X	X
TA-facilitated	X	X
15-minutes sessions	X	X
Variable frequency of attendance requirement	X	X
Variable duration of visit requirement		X
Written session report requirement	X	X
Extra credit option for attending more than once per month	X	
Limited attendance by space/capacity	X	
Variable hours available	X	X

Data Collection

Participants in the courses took a pre-screening survey to gather information pertaining to demographics, previous experience with French, and overall proficiency in the language. All students were administered pre- and post-tests as part of normal course procedure; however, the post-test included a qualitative measure to identify student satisfaction with their speaking lab experience. Open-ended responses were categorized and analyzed using constant comparative method. These responses were considered in addition to ratings students provided in the end-of-assessment questions. The data sources included lab attendance reports, TA reports, and student survey responses.

Procedures

Class sections were equally assigned an online or face-to-face lab; however, study data showed that some students opted to attend the opposite lab of what they were assigned.

Participants in both groups were expected to participate in their assigned lab as specified in their course syllabus, which required a minimum of four 15-minute sessions. The online lab also allowed students to attend as often as they wish in addition to the minimum requirements. Data of actual lab attendance were used to identify the type of lab students were assigned to and the type of lab they actually attended throughout the semester. TA reports verified the labs students attended as well. One student assigned to the online lab attended the F2F lab, and one of the students assigned to the online lab attended F2F. Data analysts compiled responses to the survey administered to all students at the end of the semester and evaluated this information as an additional means to understand student experiences with the speaking lab they attended.

Data Analysis

Descriptive statistics were used for objectively scored responses in the survey to identify any patterns in online and face-to-face group experiences and reactions. Constant comparative method was used for analyzing open ended responses regarding student satisfaction. Two raters were used to evaluate and compile thematic categories for open-ended responses. Data points or key themes that emerged from the responses were given labels and categorized, after which they were analyzed for frequency. To improve trustworthiness of the study, two raters were used in analyzing open-ended responses, as well as member checking (Lincoln & Guba, 1985) and expert checking (Patton, 2011, 2015) were utilized in the development of themes in the data analysis. Likewise, data results were triangulated by incorporating reports from actual lab attendance (F2F versus online), TA reports, and student survey responses. Please note that since each group had a different TA, there is a risk that the experiences of the participants with the online and F2F experience could be confounded with the personality of the TA they interacted with. However, that was considered in order to glean patterns that might apply more generally.

Results

Of the 20 students that completed the satisfaction questionnaire and open-ended responses, 12 were from sections assigned to face-to-face and eight were from class sections assigned to the online lab. As mentioned previously, one student from each group attended a different lab than his/her assignment, resulting in 13 students that attended face-to-face and seven that attended online.

In their survey, students replied to questions ranking the importance of lab factors, including available hours to attend, ease of attending, ease of signing up for an appointment, convenience of the location, and ease of using the necessary technology. These questions framed the logistical and physical elements of the lab that students may or may not have viewed as important. Of the students that attended the face-to-face lab, the criterion they ranked as most important was hours available. Students that attended the online lab also ranked availability of hours as the most important criteria (see Tables 3 and 4).

Table 3

Face-to-Face Participants: Importance Ranking of Speaking Lab Elements (n=13)

	Available hours	Ease of attending	Ease of signing up	Convenience of location	Ease of using technology
Mean	1.5	2.4	2.8	3.7	4.6
Median	1.0	2.0	3.0	4.0	5.0
Highest ranking	1.0	2.0	1.0	2.0	1.0
Lowest ranking	3.0	4.0	4.0	5.0	5.0
Standard Deviation	0.8	0.7	1.1	0.8	1.3

Note: Response scale for ranking of lab elements used a five-point scale where one was most important and five was least important.

Table 4

Online Participants: Importance Ranking of Speaking Lab Elements (n=7)

	Available hours	Ease of attending	Ease of signing up	Convenience of location	Ease of using technology
Mean	2.0	2.9	2.9	3.4	3.9
Median	2.0	3.0	3.0	3.5	4.5
Highest ranking	1.0	2.0	1.0	1.0	1.0
Lowest ranking	4.0	4.0	5.0	5.0	5.0
Standard Deviation	0.4	0.3	0.5	0.6	0.5

Note: Response scale for ranking of lab elements used a five-point scale where one was most important and five was least important.

Ease of using technology was the lowest ranked priority among the students. Although it wasn't important to them, it was the most cited negative element in online lab students' open-ended responses. This seems incongruous – if ease of using technology is not important, why are comments about it in the open-ended responses so prominent? One interpretation of these data may be that glitches in technology were inconvenient to students, but they were not important in the context of their global lab experience.

Students were also asked to rate their overall satisfaction with their lab experience on a scale of one to 10, where *10* was completely satisfied and *one* was not at all satisfied. Face-to-face attendee ratings yielded a mean satisfaction of 8.7, and online attendee ratings yielded a mean satisfaction rating of 5.6. All students were asked to select whether, if given the choice, they would have chosen F2F or online. Most students said if given the choice, they would attend the face-to-face lab. Of note, some who attended F2F indicated they didn't like some aspect of the lab in their open-ended satisfaction comment, yet they still said they would select the F2F over the online lab. Not surprisingly, those who attended the online lab and indicated a dislike of

some element indicated they would select F2F rather than online if given the choice (see Table 5). This seemed to show a predisposition toward the F2F setting. Students were invited to provide open-ended responses, sharing anything else they wanted to say about their lab experience. Analysis of the open-ended responses appeared to validate a disposition toward the face-to-face environment as well.

Table 5

Lab Satisfaction Rating and Setting Preference

Lab Assignment	Mean Satisfaction Rating	Setting Preference
F2F	8.7	Online: 8% F2F: 92%
Online	5.6	Online: 14% F2F: 86%

Note: Rating from 1-10, where 10 was completely satisfied and one was not at all satisfied.

Key Themes and Category Analysis

Positive and negative comments regarding lab satisfaction were grouped into five main categories as described in the procedures/data analysis sections of this article. These categories were: TA skills, conversation quality (self or TA), setting/location, structure/hours offered, and technical aspects. The frequency of categorized responses are listed below (see Tables 6 and 7). It should be noted that there were no instances where one student's open-ended response was counted in multiple categories; this is because responses tended to be succinctly focused on a particular theme and did not necessitate being counted in multiple categories.

Table 6

Online Lab Attendees Response Summary

Category	Positive Comments	Negative Comments
TA skills	0	0
Conversation quality	0	2
Setting/location	0	0
Structure	1	1
Technical (glitches)	0	3
Total	1	6

Note: Online Lab Attendees (n=7); mean satisfaction 5.14

Table 7

F2F Attendees Response Summary

Category	Positive Comments	Negative Comments
TA skills	4	1
Conversation Quality	0	3
Setting/location	0	2
Structure	1	2
Tech	0	0
Total	5	8

F2F Lab Attendees (n=13); mean satisfaction 8.75.

Contradiction Between Open-Ended Comments and Satisfaction Ratings

All but one attendee in the online lab indicated negative sentiments in the open-ended responses; nevertheless, the mean satisfaction rating (5.6 out of 10) for the online lab was not as

low as might have been expected given the number of negative comments. For instance, one student indicated in his open-ended response: “It’s difficult to understand someone by Skype,” but he still ranked his overall satisfaction with the lab a seven. Another online attendee referenced frustration with lags in the online lab “between when someone spoke and when the sound caught up,” yet she rated her overall satisfaction a six. One possible contributing factor to the seeming contradiction is that no scale analytics were employed, and the lower end of a rating scale is rarely used as participants are hesitant to be too critical. Nonetheless, the matters mentioned tended to be technology issues that diminished the experience to some extent but did not negate the value of the learning experience completely.

Likewise, despite nearly half the F2F students indicating negative sentiment in their open-ended responses, mean satisfaction (8.8 out of 10) was higher than might be expected. For example, one student assigned to the F2F lab referenced the inconvenience of available hours as a drawback of the F2F lab, yet she ranked her overall satisfaction a 10. Additionally, she indicated she would choose F2F over online if given the choice even though the online lab offered more flexible scheduling options for attendance. Another student also assigned to the F2F lab indicated he did not like “carrying on a conversation” but rated his overall satisfaction an eight. These negative comments tended to be related to preference and convenience issues.

Essential Elements for Learning Versus Preference and Convenience

Open-ended responses revealed a major theme pertaining to the speaking lab experience: the consideration of essential elements of the lab experience required to facilitate learning versus less important preferential aspects of the lab not essential to the learning experience. Overall, half the negative comments for the online group had to do with technology issues. Given the essential nature of technology working properly in the online lab setting, it is not surprising that

those students may have preferred a F2F lab. In comparison, the negative comments for the F2F group tended to be non-essential elements of the experience but rather preference issues.

Table 8 shows the frequency of negative open-ended responses that focused on the factors essential to facilitate learning versus elements associated with preference or convenience of implementation. Of all the negative open-ended responses, eight dealt with the nature of the lab to facilitate learning (e.g., how it detracted from or did not facilitate the learning experience); six of the negative comments focused on non-essential elements of the experience (e.g., hours of availability and the location of the lab). An essential element of any online course involves the proper function of the technology. If the technology does not work properly, the learning experience may be diminished. Four of the seven online lab participants commented about lag time issues and other malfunctions of the technology, such as trouble signing in to the online lab. In the face-to-face lab, negative comments about the location and available hours were prominent. These might be considered non-essential aspects of the lab as it relates to facilitating learning. In both settings the quality of the feedback and the ability of teaching assistants to mediate conversation would be considered essential elements of a speaking lab's success in terms of facilitating learning.

Table 8

Negative Comments Response Categorization

Setting	Essential to Learning	Non-essential Implementation Issues
F2F participants	4	3
Online participants	4	3

In the F2F setting positive comments tended to be related to ways the lab experience facilitated learning (see Table 9); they focused largely on the TA's skills (e.g., their ability to give good feedback and their understanding character). In the online environment, the positive comments focused completely on implementation aspects (e.g., the convenience of the hours they could attend, the location or not having to go to campus to participate, and the ability to attend with multiple students rather than one-on-one).

Table 9

Positive Comments Response Categorization

Setting	Essential to Learning	Non-essential Implementation Issues
F2F participants	5	1
Online participants	0	2

Lab Attendance

The significance of implementation factors should not be too quickly dismissed, as convenience of hours or location may have an impact on frequency and duration of attendance at the lab. Table 10 shows number of times face-to-face and online students attended during the semester, the average length of the lab sessions, and average total minutes spent over the course of the semester. Attendance records revealed online students spent, on average, more minutes per session and overall in the lab than students which attended the face-to-face lab. Other factors may have contributed to their increased attendance, such as the group attendance model rather

than being a one-on-one setting and not having time slots limited by space availability; however, location and available hours were both cited in open-ended responses.

Table 10

Lab Attendance: Length and Number of Times

Setting	Mean length of attendance per session	SD	Mean number of times per student per semester	SD	Mean total number of minutes	SD
F2F participants	16.5 minutes	4.3	4.2	1.2	69.2	20.8
Online participants	24 minutes	1.4	3.0	0.8	71.3	20.2

Discussion and Conclusions

Student responses reflected a preference for one setting over another; however, key elements of the lab settings may have impacted the preference. Additionally, student familiarity with one setting over another may have contributed to student preference. Discussion of findings is elaborated below.

Student Reactions and Alignment with Objectives

Students participating in both types of lab were generally satisfied with their experience. However, an analysis of the data revealed a student preference for the F2F lab. Each lab setting had its strengths and weaknesses. F2F labs were valued because of the quality of the TA and interaction. Online labs were valued for their convenience (e.g., setting and available hours). What students tended to complain about in the F2F setting were non-essential elements of the experience (e.g., having to come to campus and the limited number of hours available). For the online setting, students tended to complain about issues more essential to the learning aspect of the experience (e.g., the essential technology not functioning properly). Comparing the two, technology not functioning properly is like the instructor not showing up to class or students talking out of turn; it impedes the learning experience. When the TA is not able to engage

students in conversation and give appropriate feedback, the benefit of class attendance is lost and becomes frustrating for the student. Fully operational technology and effective TA moderation/feedback constitute essential speaking lab elements if learning is to occur.

In both the face-to-face and online settings students found the TA capable. However, in the online setting, technology issues seemed to frustrate students. This is likely the reason most students indicated they would have preferred the F2F lab. Our analysis of student comments revealed that participants in both the online and classroom lab valued an experience that promoted learning. This seemed to affect their satisfaction with the lab. They also desired convenience in terms of location and hours, but these factors were less important to the students' overall satisfaction with the experience. However, these factors may have contributed to the amount of time students spent in the lab.

The stated purpose of the lab is to help students "narrate and describe in the present and past time frames, use connected discourse, and acquire strategies for managing communicative complications in French" (Brigham Young University, n.d.). Student perceptions of their learning seemed to indicate both online and face-to-face speaking labs are acceptable interventions, as long as capable TAs are employed and, in the online setting, the technology functions properly. Satisfaction is additionally increased when the learning options are also convenient for the students.

Overall, the decision to implement one type of lab over another will also be impacted by contextual issues. In an online degree, virtual labs would be viable and effective if essential learning conditions are met (e.g., functioning technology and moderators which engage students in conversation and provide good feedback). Likewise, when students are attending a physical campus, either lab setting would likely suffice as long as essential learning conditions are met.

Recommendations for Future Research

Teaching in an online setting requires specific skills and techniques. Future research on the effectiveness of online speaking labs might attempt to isolate pedagogical aspects used in labs and identify ways in which pedagogy may need to be altered to be more appropriate in online settings. Likewise, evaluating speaking labs more broadly in terms of their impact on proficiency would be of merit. For instance, future research might involve analyzing to what extent participation in the speaking lab affects oral accuracy and proficiency, as discussed in the literature review. The literature suggests aspects such as task difficulty, complexity, fluency, accuracy are important considerations in analyzing oral proficiency. Thus, a future design-based research study could be valuable, with the intent to improve practice and contribute to the body of literature surrounding implementation and effectiveness of speaking labs. A study of this nature could be set up to explore oral proficiency gains of students participating in an online speaking lab versus a face-to-face lab, using pre- and post-test data to evaluate oral proficiency via validated oral diagnostic and Oral Proficiency Interview assessments. Additionally, I would consider the sample for a study of this nature pull from students using speaking labs at a lower proficiency level (e.g., 100 level instead of 300 level, as in this case study), where observable growth is more likely to occur.

Finally, future research could explore what constitutes instructor involvement and to what extent communicated expectations might align with reality in speaking labs administered by teaching assistants. Future studies might also allow students to choose their lab type (online or F2F) rather than being assigned; subsequently, data could be gathered as to the student motivation behind choosing one lab environment over the other. Perhaps the ability to select lab

type would also impact the satisfaction rating. For instance, when students can choose the format of the lab they attend, they may be more inclined to be satisfied with it.

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DISSERTATION CONCLUSION

Although computer-assisted language learning has been around for decades, certain aspects of online or blended learning continue to endure scrutiny. Critics cite lack of interaction and collaboration in online coursework, especially in foreign language education where such elements are critical to acquiring a language. My research in this area has evaluated applications of sociocultural theory in online and blended German courses, including the Conversation Café. My other two articles evaluate the Conversation Café as an intervention of its own and the student experience in online versus face-to-face speaking labs. I have discovered that there are many potential benefits as well as pitfalls with online language learning interventions, including speaking labs.

My conclusions are that online speaking labs in particular can introduce a level of flexibility and accessibility to students who need practice speaking and interacting in the language being studied. Some important considerations should not be overlooked, however. The technology needs to function well, students and instructors/TAs need a shared understanding of the purpose of the lab, and activities that take place in the lab need to support the practice and learning of language. This implies a conscious design of what is to happen in the online speaking lab. In fact, I think this same type of conscious design would equally benefit face-to-face speaking labs and the experience students have.

An online setting may not be as effective as a face-to-face setting where students can get immediate feedback and answers to questions from an instructor. However, some situations present limitations in physical space for labs, student access to other speakers of the language, or available hours for students to practice speaking. In these cases, an online speaking lab may effectively provide language practice students need and may be a better alternative than face-to-

face labs with specific limitations. I see great potential for continued research tied to online speaking labs, notably in terms of their design and implementation as well as their effectiveness in helping students progress in oral proficiency.

APPENDIX A

Review of Literature

Introduction

Over the past few decades, an evolution in language learning and teaching has been occurring. A shift has occurred from a behaviorist mode that emphasizes imitation, reward, and practice to a more constructivist mode that emphasizes a more actively involved learner. Likewise, language teaching is evolving from a deductive approach, with a classroom where the teacher provides information to a somewhat attentive group of recipients, to a more dialogic approach with technology-based instructional elements that guide students as they actively engage in their own learning through computer-based lessons, activities, and interactions.

Students in today's university classrooms often have the option of a traditional (face-to-face) classroom, a web-facilitated classroom, a blended classroom, or an online class. While the majority of students still enroll in face-to-face classes and take few online courses, enrollment in online courses is growing (National Center for Educational Statistics, 2014). In the 1997–98 academic year there were approximately 1.08 million students taking undergraduate, online courses (Lewis et al., 1999). By the 2006–07 school year, these numbers grew to a record 9.8 million undergraduate, online enrollments (Parsad & Lewis, 2008). In 2012, 26.4 percent of all college students were enrolled in at least one online class or distance education program (U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, 2014). With this current trend towards technology in language teaching and learning, the question of student success within varying modes of instruction is clearly a question worthy of study.

Prevalent Studies

As blended and online learning continue to grow, increasing numbers of studies are being published. As can be expected, studies showing effectiveness of online as well as studies showing failure of online have been published. For instance, a large, comprehensive study which has gained significant attention was completed at UC Davis from 2008 to 2012 and examined the success rate of more than three million students in nearly sixty thousand courses (of varied subject matter) in California's community college system. They found that students in online courses had "significantly lower" course completion rates, course passing rates, and rates of getting an A or B grade (Hart et al., 2018). They also found that poorer online performance to be more prevalent in summer sessions, classes that carry low online enrollments, and non-transferable courses. Their findings corroborate those of other major studies which have found that students in face-to-face (F2F) courses are generally more successful than their peers in online courses, especially in course grades and course completion (Johnson & Cuellar Mejia, 2014; Kaupp, 2012; Xu & Jaggars, 2011; Xu & Jaggars, 2013; Xu & Jaggars, 2014).

The analyses produced by Xu and Jaggars (2013) showed strong negative estimates for online learning regarding course persistence and course grade. In other words, students in face-to-face learning showed significantly higher course persistence and course grades than those who participated in online learning. The authors have conducted several studies on the nature of online versus face-to-face learning outcomes. Each study isolates or focuses on specific characteristics or variables. For instance, the 2013 study does not take into account course characteristics/features, student characteristics, and demographics. It solely tests the course persistence and course grade. One weakness of this study is the lack of isolating contributing factors to student success or lack thereof. Perhaps this study underscores the inherent lack of

validity that exists when trying to compare online to face-to-face. Further research is needed in the field, which compares online and face-to-face where discrete factors and contributing variables are considered.

Inherent weaknesses in the Xu & Jaggars (2011, 2013, 2014) studies make it invalid to generalize findings about online versus F2F courses. Many of their studies fail to consider the significance of student factors. Those factors might include GPA prior to taking the online course, previous experience taking an online course, or reasons for taking online instead of F2F. Hart et al. (2018) do consider specific student factors, but they recognize even with the consideration of student factors that their study may not be generalizable. Course factors such as similarity of syllabi, learning outcomes, course content, or assessment plan are not controlled. While some instructor factors are considered (previous experience teaching online), other instructor factors are not measured, such as: reason for offering/teaching online, attitudes about interaction with students online, typical approaches for providing student support, attitudes about online education prior to teaching the course, availability to students (e.g., office hours), forms of interaction with students, and general comfort level with technology.

It may not be possible to have exactly the same student characteristics, demographics, course features, etc. to make an exact correlation or comparison. However, it is possible to evaluate course characteristics and run related item analysis statistics to evaluate course features. Nonetheless, this may not necessarily be a valid predictor of student success. Likewise, as Hart et al. (2018) point out, effects in one subject area may not be generalizable to another subject area. In their study, they found negative predictors for student success in online math and humanities courses but slightly positive predictors in business and significantly positive for information systems. They also point out that institutional values may impact likelihood for student success

in online courses and aptly recognize these values may be considerably different in a four-year institution than in a community college setting (the context for their study).

As the U.S. Department of Education (2008) stated in their publication, the reasons why students are taking an online course may considerably affect their likelihood for success.

> The inherent selection bias makes it problematic to compare the results of online and face-to-face students. Evaluators' best response is to find, wherever possible, control groups that are matched as closely as possible to the treatment groups; this includes matching for student demographic characteristics; their reason for taking the course (e.g., credit recovery); and their achievement level. (p. 30)

Horn and Staker (2014) refer to the previously existing reputation of online courses as a second-rate alternative to face-to-face and suggest the reputation is rapidly changing. They frame online and blended learning as "industry disruptors," not unlike Amazon as a disruptor in the retail industry. Before meaningful research can emerge surrounding specific aspects of online learning, it's necessary for an increased use of online and blended coursework to continue. Horn and Staker suggest there is a need for more attention to the growing trend in online enrollments, including specific aspects of online learning that may be more or less effective than others. Likewise, they point out the need for additional research surrounding the effectiveness of blended learning.

They specifically suggest blended learning models as a way to capitalize on the strengths of technology without sacrificing the benefits of a classroom instructional environment. They argue that increased use of blended learning will contribute positively to the "innovative disruption" in the field of education and will facilitate advances in educational technology. It is quite possible that taking an intermediate step to blended learning may make the step to fully

online learning less daunting for students, faculty, and administrators. The possibilities in blended learning environments may lead to research on blended learning in higher education that yields different findings than Xu & Jaggars (2011, 2013, 2014) and Hart et al. (2018).

Evidence of Success

Literature evaluating the effectiveness of blended learning remains limited. Horn and Staker (2014) make a call to contribute to this body of literature; however, there are studies that underscore the effectiveness of fully online learning. Hart et al. (2018) make a call to contribute research that underscores the benefits of online learning and positive effects of online coursework beyond the exclusive evaluation of achieving learning outcomes. In fact, despite the studies indicating negative effects of online instruction, there is no shortage of studies that demonstrate just the opposite: that online students perform equally well, if not better than their peers who are in traditional classrooms. The US Department of Education (2010) published a report that examined the comparative research of online versus traditional classroom teaching from 1996 to 2008, evaluating 99 studies. Results suggested students doing some or all of their coursework online outranked the average classroom student (59th percentile online versus 50th percentile face-to-face).

The study found differences among adult and undergraduate learners versus K-12 learners and suggested possible reasons for the discrepancy. The report suggests younger learners tend to need more structure and predictability to instruction and assessment; more mature learners are able to identify what they need to do to be successful in a course/program. Additionally, younger learners are not as cognitively advanced and often have a lower reading level; online courses generally assume a baseline cognitive level and tend to require higher amounts of reading than corresponding classroom courses. Where lecture/direct instruction may

be oral in the classroom, it is often presented as additional reading material in online courses. This study is particularly important in the field, as it contributes to a body of government-sponsored research (with a significant sample size) tied to online learning as compared to traditional/face-to-face learning. Further, it identifies the difference in results for groups of learners (adult and undergraduate vs K-12) and discusses potential factors influencing the results. Notably this study underscores possible factors that influence results of students in online versus face-to-face classes.

Even with the extensive work of Hart et al. (2018) and the US Department of Education, research specific to student success in online versus face-to-face courses remains limited. Specifically, when it comes to language learning in blended and online platforms, the literature is particularly limited. It is important to note that the field of computer-assisted language learning (CALL) is not new and has significantly matured since its early beginnings. Over a decade ago, Warschauer and Kern (2005) pointed out, “The multiplicity of roles has taken CALL far beyond the early electronic workbook variety of software that dominated the second and foreign language marketplace for years and has opened up new avenues in foreign language teaching” (13). Nonetheless, CALL research has yielded limited publications comparing the effectiveness of language learning in *online and blended* settings compared to face-to-face. There are many studies examining the effects of using technology to enhance and supplement language learning, but not specifically comparing interventions in online versus face-to-face environments.

Researchers are expanding the research in contemporary CALL topics (Sykes & Cohen, 2008; Thorne & Reinhardt, 2008; Thorne et al., 2009). Where there are particular applications of using technology in language instruction, research is emerging. Likewise, further research about language learner behavior when using educational technology is emerging. For example, Sykes

& Cohen's research (2008) surrounding learner behavior and usage of online tools in a Spanish pragmatics website was featured at the 2007 Second Language Research Forum. Her research illustrates the necessity of evaluating the ways in which learners use resources and tools in their language learning. Rather than solely exploring student outcomes in online coursework, for example, this study evaluates specific behaviors of the learners as they completed their online coursework. While there is not a comparison of learner behavior and attitudes between online and face-to-face, this study does suggest that positive learner attitudes impact likelihood to complete online coursework and to be successful in assigned tasks. The study also aptly acknowledges that a "challenging aspect of pragmatics to address in the language classroom is the high level of individual, social, and dialectal variation present in communication" (Sykes & Cohen, 2008, p. 144).

As I have established, acknowledging the discrete variables that may impact student success is necessary. Further, evaluating granular course elements in online education can provide meaningful data. For instance, Cappellini (2016) evaluates sociocultural aspects in of language learning in a teletandem (distance learning) environment. While he does not focus on course or teacher characteristics, he does consider student social behaviors in an environment where students are working in pairs yet are separate from each other physically. This is a good example of isolating a particular type of interaction (a specific element of distance coursework) and evaluating student behavior.

Cappellini (2016) found that a focus on structure in these interactions was rare and that, rather, focus was more on being able to continue dialogue. His study points out the use of informal scaffolding in the form of gestures, references to previous conversations, references to previous instruction, and comparison to familiar vocabulary or context were used as students

helped each other. Cappellini's study underscores the notion of sociolinguistic structures when students do not have physical proximity in their learning environment. Considering the impact of transactional distance in a distance-ed language learning is a good example of what the field needs. However, still lacking is the comparison of these results to a face-to-face language learning setting. More studies evaluating specific CALL applications in face-to-face and online or blended coursework will require researchers to evaluate course, student, or teacher characteristics and motivations. When it comes specifically to language learning in online and blended platforms, there is clearly room for more comparative research.

Conversation Café

In an effort to contribute to this body of research and learn more about student success in language instruction modes and instructional delivery methods, I have explored and reported on an instructional intervention called the Conversation Café, present in select online language courses offered at Brigham Young University (BYU).

The Conversation Café features paired and small-group work, opportunities for extended listening/speaking interactions, and a means to help students fulfill speaking practice requirements. Similar to students in the Cappellini study (2016), students participating in the Conversation Café do not have physical proximity and connect to each other using technological supports. Noting the research of Omaggio (1983) and her five hypotheses, it is easy to identify the relevance of this type of intervention in language instruction. For instance, her first hypothesis indicates the importance of providing opportunities to practice in the target language usage context; it includes a corollary which suggests, "Opportunities must be provided for active communicative interaction among students*"* (p. 95). She references the potential of paired/small-group activities to provide opportunities for language practice with communicative practices,

thus ideally promoting development of oral proficiency. However, she points out that "there has been very little research to date that looks at the effects of small-group or paired communicative practice on language proficiency development, especially in the productive skills" (p. 95). Add to that the online learning platform, and even less targeted research has been done.

Conclusion

While much has been contributed to the fields of blended and online education, computer-assisted language learning, and general language education, there are gaps in the literature. For instance, when it comes to broad comparisons of online and face-to-face outcomes, the literature fails to consider contributing factors such as student, course, and teacher characteristics and motivations as well as benefits of online learning that extend beyond learning outcome mastery.

Pertaining specifically to language learning, studies are beginning to come out that isolate and evaluate educational interventions in online/blended course platforms, as Cappellini (2016) and Sykes and Cohen (2008) have done. When it comes to CALL, much of the research focuses on the effectiveness of technology interventions in classroom settings or distance/online settings but fails to make any correlation or comparison to the other course delivery platforms. There is a persistent gap in the literature to compare effectiveness of specific language learning interventions in online, blended, and F2F environments while also considering contributing factors such as instructor and institutional motivations, learner characteristics, and course features. My research was driven by an effort to contribute to this body of research and better understand the student experience as they participate in interventions used in online and blended world language courses at Brigham Young University (BYU).

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APPENDIX B

Instruments for Article 3

Instrument 1: Pre-test Demographic/Experience Survey for Article 3

(Text entry:) First Name; Last Name; BYU ID (without dashes)
What is your gender? Female / Male
How old are you? ____
What is your marital status? Single / Married / Other
What year are you in school? (select Freshman, sophomore, junior, senior, graduate student)
What is your current major?

- French
- Undecided
- Other (please specify)

What language did you speak most often at home while growing up? English / French / Other (specify)

Where have you studied French and for approximately how long? Enter in the approximate number of years OR months you studied the language in each of the settings.

School	Number of years
Elementary	
Jr high	
High school	
College/university	
Other	

Have you served a French-speaking mission, participated in study abroad/internship, lived in the French house, or had other extended experience with the French language? Check all that apply.
43 Mission: Where?
45 Mission: When?
46 Mission: How long?

47 Study abroad: Where?
48 Study abroad: When?
49 Study abroad: How long?

36 Internship: Where?
38 Internship: When?
34 Internship: How long?

37 Other experience: Where?
39 Other experience: When?
43 Other experience: How long?

42 French House: When?
35 French House: How long?

How do you rate your own French ability in the following areas? (Likert scale: poor, fair, good, very good, excellent)

- Speaking ability
- Listening ability
- Writing ability
- Reading ability
- Pronunciation
- Grammatical knowledge
- Cultural knowledge
- Vocabulary knowledge
- Other

Why did you choose to study French? (open-ended)
Is there anything else you'd like us to know about your language learning background and/or your future language study intentions? (open-ended)

What French courses have you taken at BYU? (choose from list of all courses offered at BYU)

Have you ever done an OPIc before?

- I have done several official OPIs/OPIc's.
- I have already done an official OPI/OPIc in French.
- I have already done an OPI/OPIc in another language.
- I have had oral exams similar to the OPI in my classes.
- I have had some practice but not an official OPI.
- I have never done an OPI/OPIc.

Instrument 2: End-of-Course Survey for Article 3

Q Did you attend the speaking lab online or face-to-face?
Q Please rank the following by their importance, where 1 is highest importance and 5 is lowest

importance:

- Convenience/available hours to attend
- Ease of attending
- Ease of signing up
- Convenience of location
- Ease of using necessary technology (if you attended the online speaking lab, rank this as #5)

Q How many times did you attend the speaking lab this semester?

Q How long did you attend each time?

Q If given the choice, which type of lab would you prefer: online or face-to-face?

Q What did you like or dislike about the lab you attended and why?

Q On a scale of 1-10 where 1 is not at all satisfied and 10 is very satisfied, how satisfied were you with your speaking lab experience this semester?