2021-12-16

Blended Language Learning: The Decision-Making Process in Designing a Blended Portuguese Course

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Blended Language Learning: The Decision-Making Process in Designing a Blended Portuguese Course

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Arts

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ABSTRACT

Blended Language Learning: The Decision-Making Process
in Designing a Blended Portuguese Course

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This study identifies how content specialists, instructors, and instructional designers made decisions about what content to teach in person and what to teach online for a second year Portuguese university course. Qualitative vignettes around three course design participants highlight emergent themes and course artifacts from their interviews that show how they made decisions about what learning opportunities to do online and what to leave in person. The blended language course involved Canvas learning management system with two additional main technology tools used in development: GoReact and H5P. The results are subdivided to reflect the views of the instructional designer, the content specialist, and the instructor.

Keywords: decision-based design, blended language learning, Portuguese, course design

ACKNOWLEDGEMENTS

Thank you to those on my thesis committee. A special thank you to Dr. Charles R. Graham for welcoming me warmly into his department to enroll in IP&T courses to better understand online/blended learning. Thank you to Jessica DeMolder who offered learning opportunities as an instructional designer, as well as increased my understanding of blended language learning. Thank you to my colleagues. Thank you to Sponsors who allowed me to study at BYU. Thank you too to my family, who forever are a beautiful support.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

Introduction

As a consequence of the lock-down measures due to the COVID-19 pandemic, language learners have commenced instructing and learning online in increased numbers. Hodges et al. (2020) specifically report the differences between emergency online learning and designed online learning. Much of what was occurring in our classroom was moved to platforms such as Zoom to replace what we were doing prior to the pandemic because of an emergency. Even before the pandemic, low enrollments in language courses were causing many to consider more flexible ways of offering the courses to increase enrollments (Gleason, 2013; Graham et al., 2019). However, more research and data are needed regarding best practices for converting an in-person language course to an equally effective and engaging online or blended language course has yet to be answered.

Hughes et al. (2019) report that it is critical to consider what pieces of learning should be included in person versus online. Additionally, they state, "One of the issues common to a subset of these studies is that of design and how best to integrate the two modes of delivery, face-to-face and online, to meet the varied needs of . . . language learners" (Introduction section, para. 2). Furthermore, Graham et al. (2019) reported, "For technology to truly have an impact on students' learning, we have to do more than simply digitize what we've always done" (Online Integration 2.3 section, para. 5). Additionally, Hughes et al. (2019) maintain that benefits will "not be realised, however, unless designers are able to blend the face-to-face and online elements of their courses in such a way that each reinforces and augments the other" (Blended Language Learning section, para. 7). This means that as courses are designed, the affordances of each element need to be taken into account and matched to the learning outcomes.

However, the task of deciding what portions of a course to integrate online is not presently outlined well in the current research. The existing corpus of blended language learning literature speaks more to student satisfaction with blended learning opportunities than with the way teachers came to design decisions, including what reasoning and design thinking was behind course design decisions being made. This leaves us in need of more research to understand and establish a framework for designing blended language courses. For now, we need to understand how language teachers and designers make design decisions.

Theoretical Frameworks for Blended Instruction

At present, there are some possible frameworks highlighted in the literature that may assist blended language learning design teams in their decision-making process. For example, Russell and Murphy-Judy (2021) use ADDIE (Analysis, Design, Development, Implementation, and Evaluation), which is an instructional systems design framework used by instructional designers to develop online courses. However, the ADDIE process is extensive, and during the pandemic, many instructors were forced to offer in person content in an online setting without adequate time to complete, or even be aware of, a full ADDIE framework cycle (Hodges et at. 2020). Consequently, many instructors simply replaced material from one medium (in-person) to another medium (online). Other common frameworks, specifically geared toward technology integration, include the TPACK Model (Mishra & Koehler, 2006) the PICRAT Model (Kimmons, 2018), and the SAMR Model (Puentedura, 2010).

The TPACK/TPCK Model (Mishra & Koehler, 2006) highlights three main areas including Technological Knowledge, Pedagogical Knowledge, and Content Knowledge in a Venn diagram connection. At the center of the Venn diagram is Technological Pedagogical Content Knowledge. This model explicitly shows all the types of knowledge needed in order to

integrate technology meaningfully into the learning process. While it is helpful to understand what types of knowledge are needed, it does not guide us to know how to decide what language specific elements to teach online versus in person.

Some other models are more specific about the technology integrations. For instance, the PICRAT model (Hughes et al., 2006) assists in understanding design decisions with technology. PICRAT represents Passive/Interactive/Creative student use of technology as well as the ability to Replace/Amplify/Transform current practice. This helps designers and teachers know what questions to ask when designing a course and online learning experiences. Similarly, the SAMR Model (Puentedura, 2010), includes four steps: Substitution, Augmentation, Modification, and Redefinition. These steps are divided into two categories: Enhancement and Transformation. Enhancement includes both Substitution and Augmentation, while Transformation includes Modification and Redefinition. The SAMR model supports technology integration by inviting designers or teachers to consider whether technology is leveraged for course enhancement or course transformation.

We can see that many researchers have built frameworks and models to help in the general online or technology assisted learning design process. The main focus of these is that different mediums give learners different affordances, which designers should be aware of in order to make learning experiences that are engaging and transformative. However, when it comes to language learning, there are specific language pedagogies that also need to be taken into account when designing online programs. A remaining question is how designers and instructors make decisions about what learning experiences to put online, and which ones to keep in the face-to-face classroom.

The Present Study

The decision to offer PORT 201-202 (Second year Portuguese) at BYU in a blended format was done to increase flexibility for students who had an interest in studying Portuguese but whose other degree commitments did not allow for a five day a week course. With limited understanding in blended language learning design, I reached out to professors and students in the department of Instructional Psychology and Technology (IP&T). While participating in IP&T courses I learned that an online course design includes much more than simply transferring in person materials to an online medium. I was introduced to the PICRAT framework (Kimmons, 2018), as well as other frameworks and models used to assist technology integration and blended or online course designs. In consequence of our need to provide a blended language course for PORT 201-202 it seemed good to form a team to collaborate the best way to do so. This team included an Instructional Designer, a Content Specialist and an Undergraduate Course Instructor. I also was part of this team. The study comments on observations of interactions during the design process. It also shows discussions and conversations about course design with members sharing personal opinions and reasons for why they designed certain course artifacts.

Research Question

In designing a blended language course, the following is our research question.

How do instructors and instructional designers make decisions about what content to teach ***in person*** and what to teach ***online***?

CHAPTER 2

Literature Review

Present literature regarding blended language learning speaks to student satisfaction but has yet to develop concrete direction to design blended language courses (e.g. DeMolder et al. 2020). DeMolder et al. additionally reports no concrete direction to design blended language courses has been identified. We do know that there exist various technology frameworks on assisting in technology integration for blended or online course designs (e.g. Kimmons et al. 2020). We understand according to ACTFL that language includes three modes of communication, which are interpersonal, interpretive, and presentational. To develop blended or online courses with a technology integration framework that assists in evaluating which modes of communication may best be represented online or in person has not been developed to date (e.g. DeMolder et al. 2020). This was confirmed at the American Council on the Teaching of Foreign Language's yearly conference (ACTFL, 2021) as Davidek and Zhou concluded their presentation reporting that they have not seen research that deals with ways of assessing technology use for foreign language instruction.

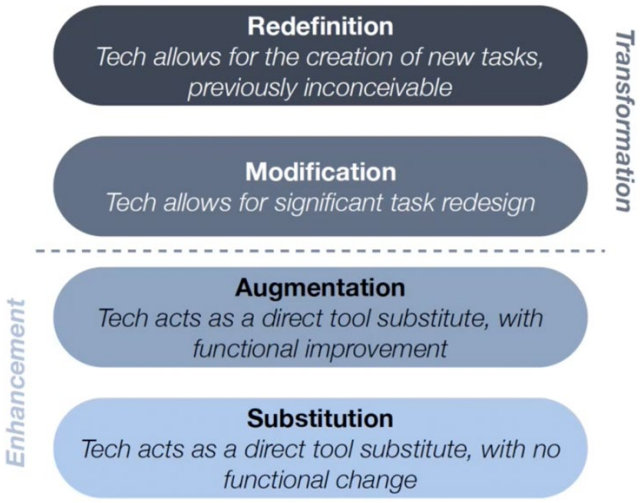
Blended Language Learning

Gleason (2013) reports that increased curiosities around blended language learning are arising as online mediums for language courses are being offered in blended or fully online formats. Some of these questions revolve around the appropriate design process of a blended language course. Recently, researchers have commenced contributing ideas specifically related to blended language learning. For instance, Russell and Murphy-Judy (2021) have reported that a combined consultation of the ADDIE model and Backward Design will assist in blended language learning design. Backward Design includes using objectives to influence learning

opportunities and assessments offered in a course. The ADDIE model shows a circular process of design. It shows the process of identifying a needs analysis, designing objectives, developing course materials, implementing ideas generated, then evaluating the results. Similarly, Backward Design shows the way objectives drive both choice of assessments and learning opportunities within a course design. Another model is the SAMR model. Figure 1 shows the SAMR Model (Puentedura, 2010). It includes four steps: Substitution, Augmentation, Modification, and Redefinition. Davidek and Zhou (2021) used a rubric based on the SAMR model to assess technology in language teaching. The SAMR model facilitates instructors and designers opportunities to reflect on the results of technology integration within their courses.

Figure 1

SAMR Model (Puentedura, 2009)



It was observed that during the COVID-19 pandemic, online course options have increased to maintain social distancing. However, there is still limited research available on frameworks that may assist language instructors in designing new blended language courses. The frameworks or models above are valuable, but no model exists that uses language methodologies to assist in decisions of what content to include online and what content to include in person.

One place to start, in considering the design of a blended language course, may be initially in understanding the affordances technology offers.

Affordances

Gedik et al. (2012) produced a study speaking to the affordances, as well as the difficulties in blended learning. The study reported the various benefits of blended learning to include both in-person and online portions of the course as supporting one another. It was also noted that students' interactions increased, with additional opportunities to share comments as a result of the blended course design. More affordances included time flexibility, which they reported as, "[asking] and [responding] to questions without time limitations, and flexibly [studying] the content" (p. 9). Another affordance of the online portion was "more resource availability, and enhanced discussion and peer interactions" (p. 9). They conclude by saying, "One conclusion that can be derived from this result is that the combined F2F and online delivery environments seem to have offered the students opportunities to utilize different media to support their learning on multiple levels via a variety of activities in different learning environments, including synchronous and asynchronous discussion opportunities" (p. 9). They reported findings based on comments submitted by students who had participated in a blended course. It may be possible for course designers or instructors converting in-person courses to blended courses to synthesize conclusions about some course design decisions, but ultimately it provides limited direction as comments may be inaccurate or biased.

Designer Perspectives

Conversations are occurring about blended language course design, which include important ideas to consider when deciding online or in-person contributions. Gleason (2013) reports, "A major concern in the field of computer-assisted language learning is that pedagogy

needs to drive technology, not the other way around" (p. 605). In Gleason's study, three course objectives were compared in both an online and in-person medium. Gleason additionally comments that "course delivery modes and formats provide students with equal access to course content, offer comparable learning opportunities, and prepare students equally well both for common assessments and for future use of the language for communicative purposes" (p. 606). However, before online content may be reviewed it must be designed. Unfortunately, assistance to language course designers is still limited. There exists a general understanding that pedagogy should drive technology integration, but a framework within language learning to assist language instructors and design teams in this process seems yet to be identified and accessed.

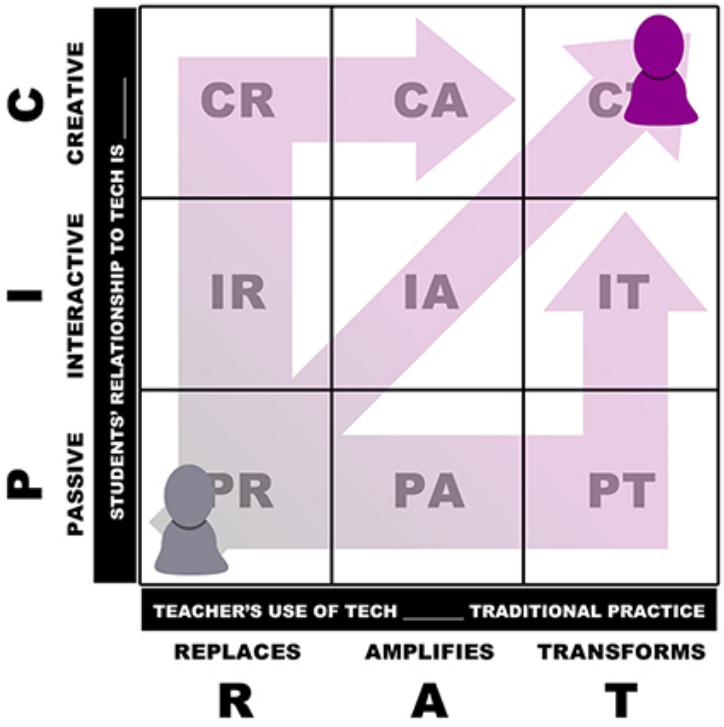
As reported above, Russell and Murphy-Judy (2021) have tried to combine ADDIE with language learning frameworks in an attempt to design blended language courses. However, Heberer (2021) outlines additional frameworks: the TPACK Model (Mishra & Koehler, 2006), the PICRAT Model (Kimmons, 2018), and the SAMR Model (Puentedura, 2010) that may provide increased direction and assistance to design teams initially moving in-person courses online in full or in part. It was noted earlier that Davidek and Zhou (2021) presented on using the SAMR model. However, even they reported the lack of research available on technology integration for foreign language and made a call to others interested to join them in collaborating over this topic.

Technology Integration Perspectives

As defined by Kimmons (2020), PICRAT is a technology integration model that holds that all technology uses either exemplify a Passive, Interactive, or Creative (PIC) relationship between student and technology as well as have a Replacement, Amplifying, or Transformative (RAT) effect on pedagogy. Figure 2 shows the framework matrix PICRAT offers.

Figure 2

PICRAT Matrix (Kimmons, 2018).



Graham et. al, (2019) outlines the matrix as follows:

- Passive (P):
    - Description:Technology is presented to students in a one-size-fits all approach that is meant for student consumption with no requirement for response.
- Interactive (I):
    - Description:Technology is responsive to student performance and behavior.
- Creative (C):
    - Description: Students use technology to produce original materials.
- Replaces (R):
    - Description: Technology is used to make an activity more efficient or accessible, but the activity itself does not change in any meaningful way.

- Amplifies (A):
    - Technology allows the teacher or students to do the same activity with some improvements that would be difficult or impossible without technology.
- Transforms (T):
    - Technology is used to reimagine the learning activity and to do something completely different that would be difficult or impossible without technology.

Kimmons (2020) reports that the initial step required for technology integration is to consider the following two questions:

- What are my beliefs about learning and how learning occurs?
- What are my institution's beliefs about learning and how learning occurs?

Kimmons additionally states that there are many integration models and speaks primarily to four models, TPACK, RAT, SAMR, and PICRAT. In providing details about these models, Kimmons reports that PICRAT provides a good base for new teachers to assess technology integration. Ultimately, PICRAT facilitates discussions in which educators and/or course designers may discuss leveraging technology to benefit students.

The PICRAT model (Hughes et al., 2006) assists in understanding design decisions with technology. PICRAT represents Passive/Interactive/Creative student use of technology as well as the ability to Replace/Amplify/Transform current practice.

The SAMR Model (Puentedura, 2010), includes four steps. The four steps: Substitution, Augmentation, Modification, and Redefinition are divided into two categories: Enhancement and Transformation. The SAMR Model allows us to evaluate technology integration. It divides enhancement and transformation similar to the way one may add new paint to an old desk (enhancement) or rebuild a new desk (transformation).

The TPACK/TPCK Model (Mishra & Koehler, 2006) highlights three main areas including Technological Knowledge, Pedagogical Knowledge, and Content Knowledge in a Venn diagram connection. At the center of the Venn diagram is Technological Pedagogical Content Knowledge. This model is a beneficial tool for designers and instructors initiating new course designs using an online medium. It supports the idea that what you teach and how you teach should influence your chose of technology integration. Technological Knowledge is understanding of technologies that will support your learners. Pedagogical Knowledge is understanding which technologies will support instructor pedagogy. Content Knowledge is the understanding instructors have about their content.

According to Heberer (2021), limited studies have been completed that have shown PICRAT matrix used in design processes. In fact, present research shows the absence of frameworks available to assist specifically in the design of blended language courses.

Conclusion

Overall, blended language learning is increasing as a language learning opportunity. The research field has made a lot of progress in determining wise technology integration; however, a proven framework yet remains to be developed or spoken to when it comes to designing a blended language course. This study aims to highlight how designers and instructors of language curricula make design decisions while creating a blended language course (Portuguese 202). Understanding the design decisions that need to be made when designing these courses will lead us to better understand the specific elements needed in a blended language framework.

CHAPTER 3

Methods

This section will discuss participants, settings and procedures of the study. I have obtained human subjects institutional review board approval and participants' consent/assent. The IRB Approval Letter is included in Appendix A.

Participants

Traditionally, Portuguese 202 is offered once each year. From 2011 to 2021, enrollments have ranged from three to nine students. However, in consequence to limited enrollments Portuguese 202 in fall 2019 was about to be cancelled until it was decided to offer it in a blended format. Students who enroll in PORT 202 normally have completed PORT 201 in the previous fall semester. Since offering PORT 202 as a blended language course, enrolment has increased to 13 students. These data reflect the previous years in which it has been offered, including the one year it has been offered as a blended language course.

In an effort to redesign Portuguese 202 a design team was organized. The design team included four members with the assigned roles described below. I used a convenience sampling strategy to select this particular team to study.

Emelia: Undergraduate Portuguese Instructor

The first member of the team was a Portuguese 202 course instructor who was an undergraduate student. This was her first time teaching at the university level. This individual is not a native speaker of Portuguese but learned Portuguese while in Brazil for about 18 months. Her experience with online/blended learning includes some course work as a student.

Dr. B: Second Language Content Specialist

Our content specialist holds a Ph.D. in Curriculum and Instruction with an emphasis on Second Language Education. He also has been an instructor of Portuguese in higher education for over 25 years.

Jamie: Instructional Designer

Our team instructional designer holds a MA in Second Language Teaching. She is also a present doctorate student in Instructional Psychology and Technology (IP&T). Additionally, she has been employed in higher education as an instructional designer of world languages for over two years.

Camellia: Instructional Design Assistant/Researcher

I too am a member of this design team. I hold a BA in Education and am currently an MA student in Portuguese Pedagogy at Brigham Young University. I also have instructed and been involved in the design of Portuguese 201 and Portuguese 202 since 2019.

These four individuals described above constituted the research participants. This was a convenience sample for the researcher, as I was involved as one of the designers.

Setting

Portuguese 202 is a 4-credit course offered once each calendar year. The outline for Portuguese 202 consists of seven units. The seven units cover the following topics: School, University and Careers, Weather and Climate, Economics and Finances, Brazil, Business and Services, Urban Transit and Leisure Activities. Each unit includes learning objectives that focus around the following areas: communication, culture, grammar, and vocabulary. Each unit also includes communicative activities that focus around three modes of communication: Interpersonal, Interpretive and Presentational.

The course originally met five days a week in person. Presently, as a blended course it has been redesigned to meet Monday, Wednesday and Friday on Zoom from 12-12:50 pm with additional online assignments Tuesday and Thursdays to be completed by students asynchronously. It is a fourth-semester language course.

As a theoretical framework to redesign Portuguese 202 as a blended course, the design team initially decided to use the PICRAT framework described in Chapter 2 to assist them in the pedagogical decision-making process. Through the semester and design process, many questions about the actual curriculum arose, as well as how to teach language online. This meant that less focus was put towards using a specific framework and more towards exploring affordances and possibilities of blended language learning.

Sources of Information

I have decided to use a qualitative research design. This was decided to allow deep understanding in the decisions made by each design member in regard to our blended language course design. I recognize limitations are present in our design choice, as it may be biased as I am coding the semi-structured interviews. However, efforts are in place to maintain trustworthiness as explained below in the "Quality Standards" section.

Data collection occurred in various forms. A primary data source included semi-structured interviews facilitated by myself and another researcher, who is on my thesis committee, to each of the other three members of the design team. These semi-structured interviews occurred following the course design. A secondary data source included weekly design meetings recorded in Zoom, as well as email communications received between team members. A third data source included artifacts, namely course materials/units that are designed by team members.

Interviews

- Purpose of interviews - these interviews allowed us to see the reasons each participant decided to include or omit materials, as well as why they decided to put learning opportunities online vs others in-person.
- One semi-structured interview occurred at the end of design period. Interview questions focused on design decisions made around specific artifacts (units) that have been created. This interview included questions specifically related to the design decision making process around technology integration. It also provided opportunities for participants to speak to their experiences in designing Portuguese 202. Once I transcribed and coded participants' interviews, I contacted them briefly to confirm my interpretations of their interviews were accurate.
- A sample semi-structured interview protocol is provided in Appendix B.
- Weekly team meetings allowed authentic examples of moments where as a design team we discussed pedagogical decisions regarding technology integration and course curriculum.
- The meetings occurred on Zoom. We had 12 team meetings, averaging to about three meetings a month during the course design. Meetings lasted around an hour and each meeting was recorded in Zoom. A typical meeting agenda included discussion on the affordances of technology, course curriculum and whether our decision decisions were Replacing, Amplifying or Transforming learning opportunities. However, many of our meetings turned to address present course issues as it was being designed while being instructed. During some team meetings the instructional design assistant or instructional designer highlighted and/or explained a few important points about PICRAT for the other

design members who were not familiar with models of technology integration. Then discussions occurred facilitating conversations to speak to our technology integration decisions regarding the PICRAT model. Unfortunately, many additional concerns or specific needs were addressed as well which eliminated a deep discussion around PICRAT.

Artifacts

- The design team produced instructional units that served as artifacts that have been referenced during our informational interviews. These artifacts included samples of assessments, reading comprehension, writing assignments, speaking assignments and listening comprehension and other sections of the redesign.
- A relevant selection of artifacts have been included in discussion within this thesis to provide rich detail.

Data Analysis

Investigator Role

In our qualitative study I was the lead investigator and, consequently, I was the "primary instrument" as I interpreted the data with perhaps subconscious perspectives and biases (Merriam, 1998). As a previous instructor to Portuguese 202 I have some biases as to instructional methods. Additionally, as I have attempted to design Portuguese 201 and Portuguese 202 as a blended language course for a year without an official design team. I have biases in regard to benefits of using a framework and collaborating with a design team. Other recent experiences in Instructional Psychology and Technology allow me to understand technology integration models more deeply than some of the other participants, leading to increased biases to follow its direction in our design. Consequently, interpretations of data may

be impacted by these biases. Again, trustworthiness is important, and details will be outlined later as to how we plan to promote trustworthiness.

Analysis Process/Procedures

Data Interviews

The approximately three semi-structured interviews were transcribed. Then emergent themes were identified around the main research question. I made a tag for each answer that represented the main topics discussed. As themes emerged, I added them to my code book. The code book includes the theme, the description of the theme and examples. After reading each answer to each question I found the emergent themes and marked them in the code book. I wrote down the theme name, how many times it came up, as well as a short description. I created a code book for each individual interview transcript.

Team Meetings

Portuguese 202 was designed during one semester. Consequently, we had 12 hours of Zoom meetings recorded with our design team. It is not my intention to transcribe all 12 hours. However, I synthesized the team meetings to speak to overall findings.

Artifacts

Relevant artifacts were made into a PowerPoint and shared with team members during our semi-structured interviews. Selected artifacts were included as figures in this thesis to provide detailed examples to observed emergent themes.

Quality Standards

To attain increased trustworthiness in our study I planned for credibility, transferability, dependability and confirmability.

Credibility

Member checking occurred after I had transcribed and coded the interviews. I administered a member check after having analyzed the previous interviews and data from our study. I organized specific points from the interviews to have clarified by the interviewee. This final member check ensured credibility and accuracy of the data obtained during the study.

Transferability

Our study intends to assist other language course designers/instructors by sharing our technology integration decisions. We tried to establish transferability by using rich thick description and direct quotes from the participants. We hope that faculty and designers will be able to see their own contexts in the narrative we have described.

Limitations

One limitation is that course design occurred while the course was live. The process would be different if the design had occurred before students were enrolled in it.

I recommend changing our limitations for future studies. However, notwithstanding the limitations, we are confident our study maintains a valuable contribution to blended language learning research design.

Ethical Considerations

Some ethical considerations I accounted for include design team member's participation. Consequently, I obtained an IRB for those individuals involved in design. Participants' names remain confidential in the reporting. However, participants are aware that they may be identified by professional position. Also, to navigate power/authority structures in the design team semi-structured interviews were conducted, eliminating pressure to respond a certain way because the undergraduate instructor's role is different from that of the professor with 25+ years of teaching

and research experience at the university. These individual interviews ensured hearing the voice of everyone. Another consideration is my personal biases. I recognized I am in favor of technology integration and confident that language courses can be instructed well in blended and online formats. These biases have been taken into consideration during our study.

CHAPTER 4

Results

This study examined how instructors and designers made decisions about what content to teach in person and what to teach online. Upon completion of systematically coding the three semi-structured interviews, based on identifying emergent themes, main themes were highlighted for each interviewee. The sections below highlight the findings noted regarding how instructors and designers made decisions. Our findings format includes an artifact with supplementary quotes added to discussions around emergent themes to provide rich detail for increased transparency in the findings.

This study examined how instructors and designers make decisions about what content to teach in person and what to teach online. The findings in this study assist us in identifying the ways instructors, content specialists and designers collaborated to decide what content to teach in person and what to teach online.

The results presented in this section include observations made while synthesizing weekly design team meetings and semi-structured interview discussions with our content specialist, instructor and designer. Emergent themes based on a systematic coding review offer us increased understanding into the ways each team member made decisions.

This section will highlight the study's research question:

How do instructors and instructional designers make decisions about what content to teach ***in person*** and what to teach ***online***?

The results are subdivided to reflect the views of the instructional designer, the content specialist and the instructor.

In addition to the Canvas learning management system that provided the platform for the course, two main technology tools were used in the design of the blended language course: GoReact and H5P. A brief description of these tools will be given here as context for understanding quotes about the tools from the participants.

GoReact is a video communication system that offers individualized video feedback, time stamped video feedback, and video reflection opportunities among other features. Figure 3 shows a screenshot example within GoReact of providing time stamped feedback to a recorded video. Figure 4 shows a screenshot example within GoReact of interacting with a video using time stamped feedback. According to GoReact this feature includes the option to "click on any feedback and the video automatically jumps to the exact moment the feedback relates to. This makes it easy for students to review instructor and peer feedback." GoReact continues, "GoReact automatically pauses the video when you give feedback. It creates a time-saving no-click workflow to giving feedback."

Figure 3

Screenshot of Go React Showing Time Stamped Feedback

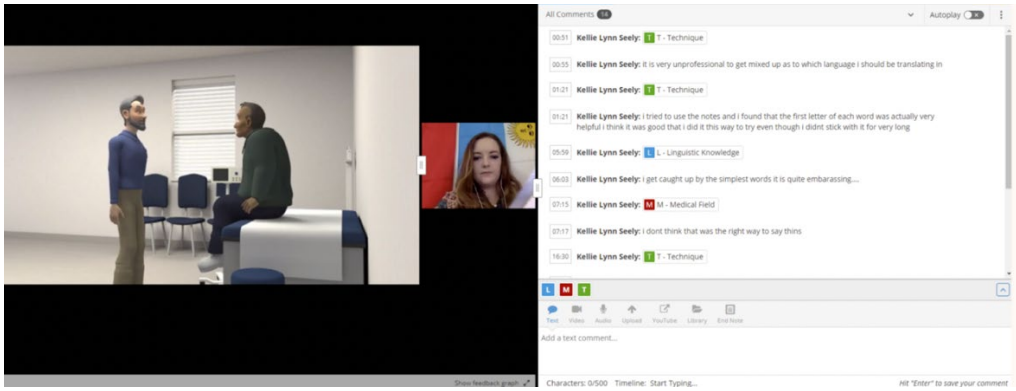
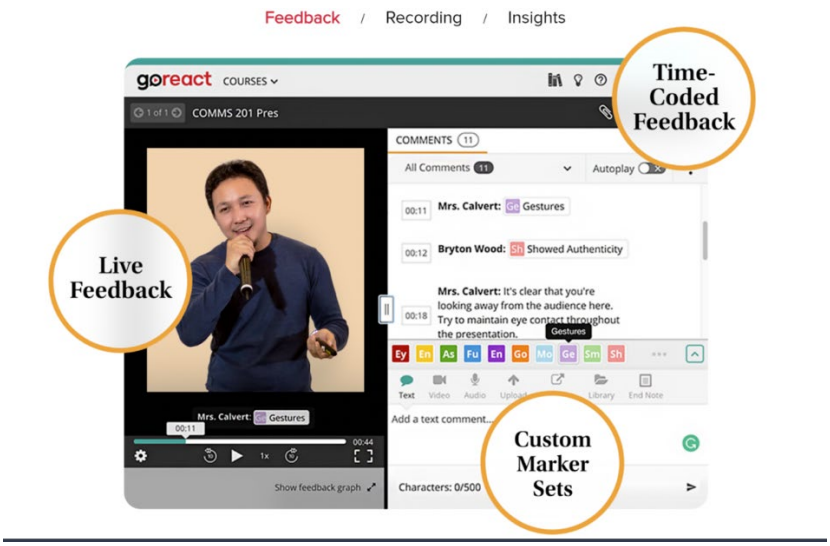


Figure 4

Screenshot of Go React Showing Markers



H5P is another tool used to facilitate interaction in online or blended language courses. H5P offers many options of designs to allow students to interact with course content to learn. Some of the activity options available are shown in Figures 5, 6, 7, and 8.

Figure 5

H5P Design Options

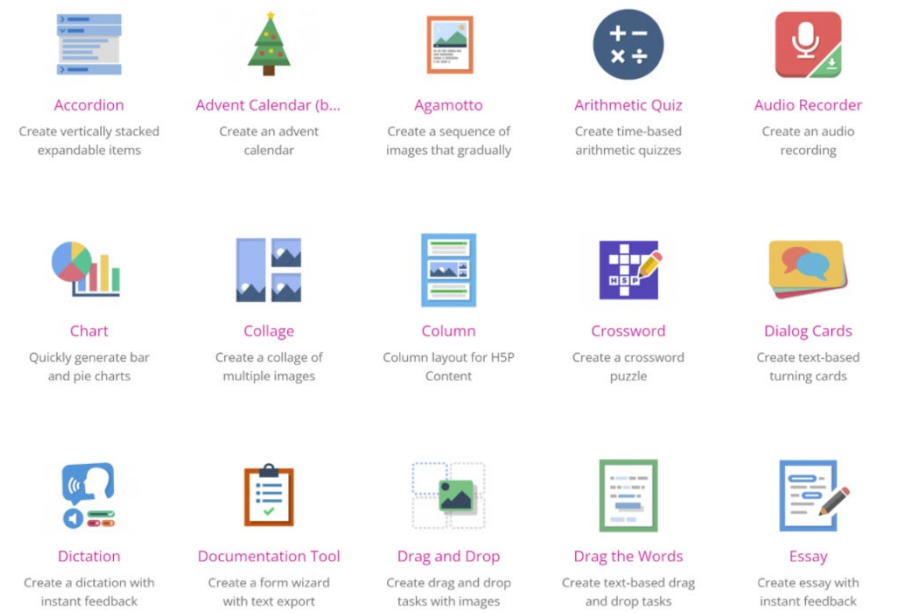


Figure 6

H5P Design Options

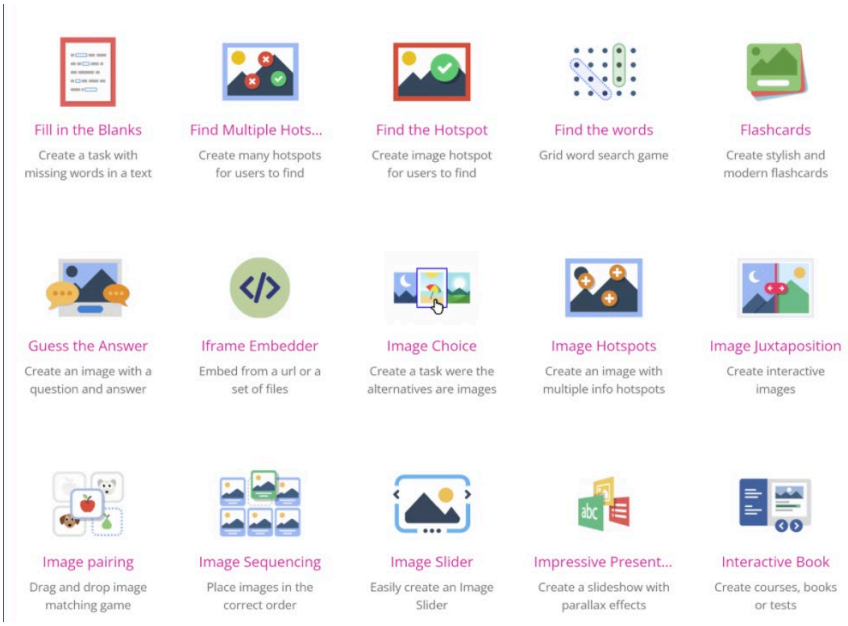


Figure 7

H5P Design Options

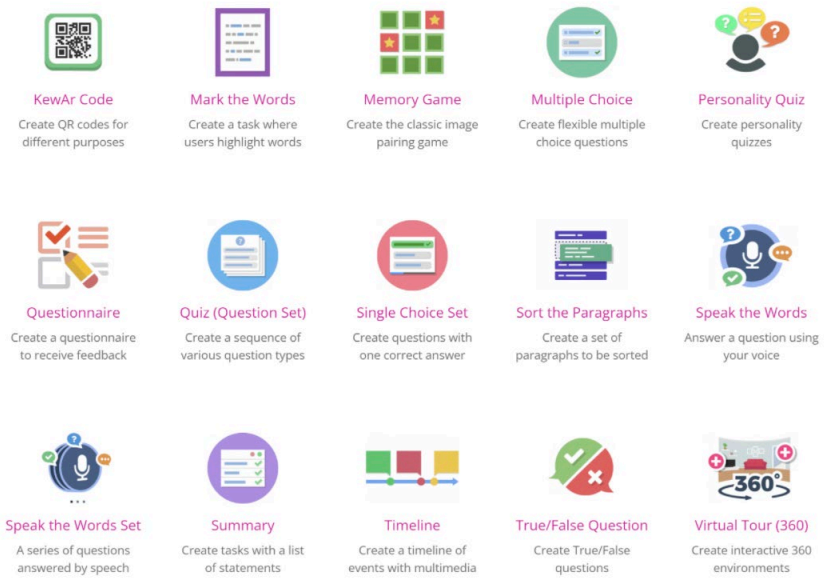
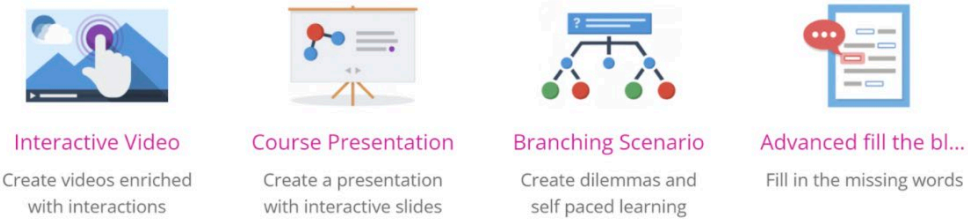


Figure 8

H5P Design Options



Jamie: Instructional Designer Perspective

Three prominent themes stood out with Jamie, our Instructional Designer, when she was deciding what to teach in person or to teach online. The themes are outlined in Table 1 and elaborated on in the following sections.

Table 1

Emergent Instructional Designer Themes

Emergent Theme	Brief Description
Affordances of Technology	Decisions were based upon specific affordances (or features) of the technological tools available.
Language Methodology	Decisions were justified based on a specific language teaching theories and methods.
Stakeholder Buy-in	Decisions were based on what the instructional designer perceived would be accepted by the other stakeholders – especially the content specialist.

Affordances of Technology

An affordance is a feature of the technological tool that "affords" or enables certain actions. Jamie often reported on the affordances that technology offers language learning, inviting the team to leverage those affordances to support proficiency development. For example, she commented on the visual and interactive affordances possible in the online environment that are not possible in a printed textbook. She reported, "Grammar can be intimidating . . . What we tried to do is have some interactive way for the students to understand the grammar concept and then in a way that they could also come assess it right away." She continued, "what we ended up with was . . . a huge improvement because there was . . . higher fidelity in the content presentation." Additionally, Jamie reported:

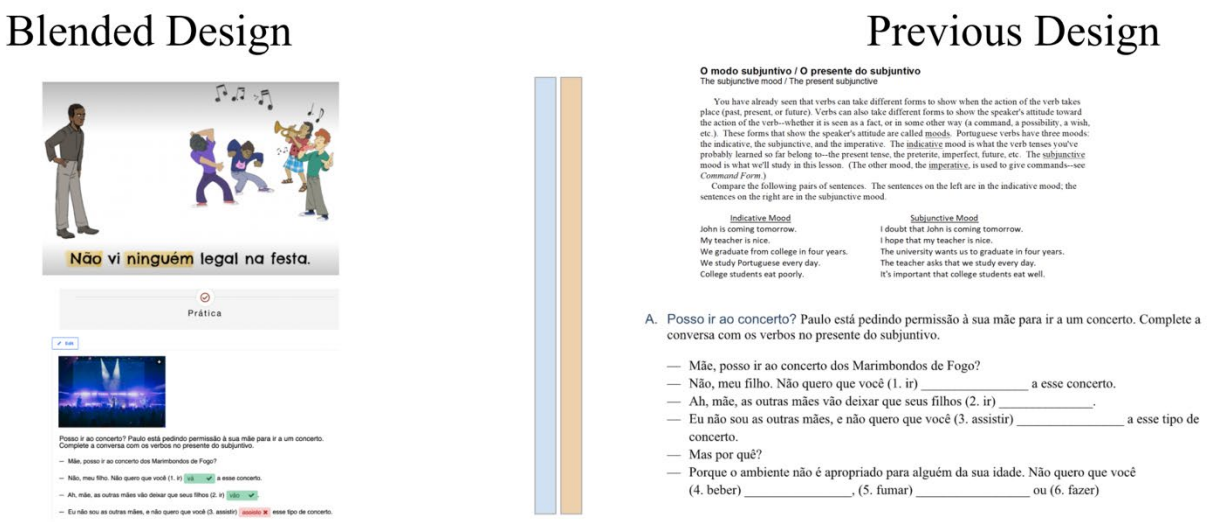
> We go from just a blank PDF, black and white just text to something with videos that show us how to use this grammar and images that match the context. Because we always

want to teach grammar in context, we're never just teaching grammar. Then we have immediate assessments . . . try it out, are you getting it right or wrong? They get that immediate feedback.

Figure 9 shows example artifacts from the blended and non-blended course that demonstrate this theme. On the left is an online grammar activity that uses visual representations in images and video to provide context. Additionally, the blended design is able to provide immediate feedback on practice while feedback on textbook practice happens in class or by looking up answers at the back of the workbook.

Figure 9

Example of Blended and Non-blended Design of Grammar Activities

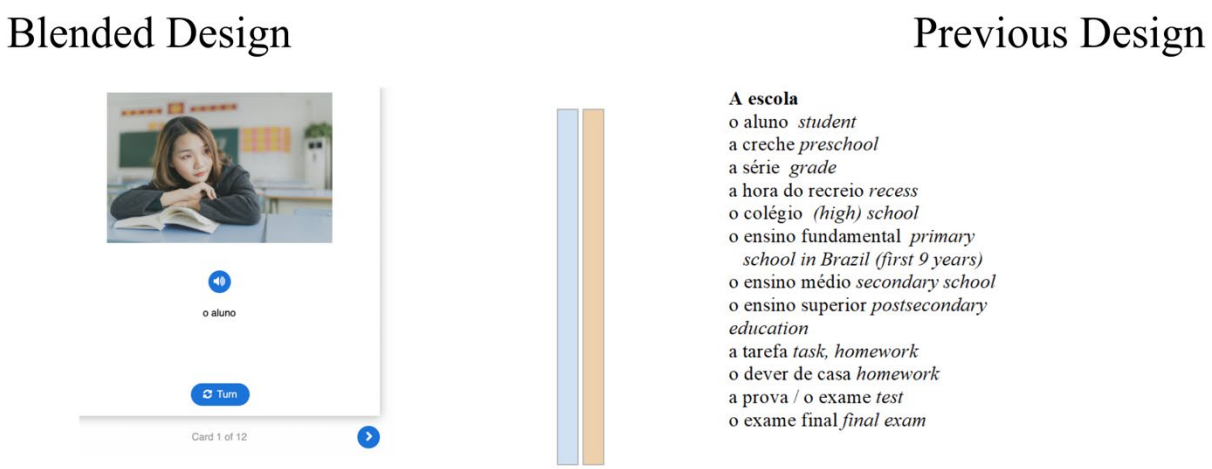


Another affordance of the technology Jamie mentioned was the ability to have audio with the text so that the students could hear what the vocabulary sounded like. She reported, "we added audio. Before the students didn't know what the word sounded like. They just looked at them, so that was huge adding that audio for the kids to listen to at home."

Additionally, Jamie mentioned that technology allowed us to add images, as well as produce flashcards for students to practice. The H5P tool enabled designers to add a function called "Speak the Word" which allowed students the additional ability to practice saying a word or phrase with feedback on their pronunciation. Figure 10 shows an example of a blended and pre-blended vocabulary practice activity. In the pre-blended design students were given a vocabulary list that they were to learn independently. In the blended redesign, the course had vocabulary flashcards with visual and audio capabilities as well as immediate feedback on their practice.

Figure 10

PowerPoint Slides on Artifact: Unit-Specific Vocabulary



Language Methodology

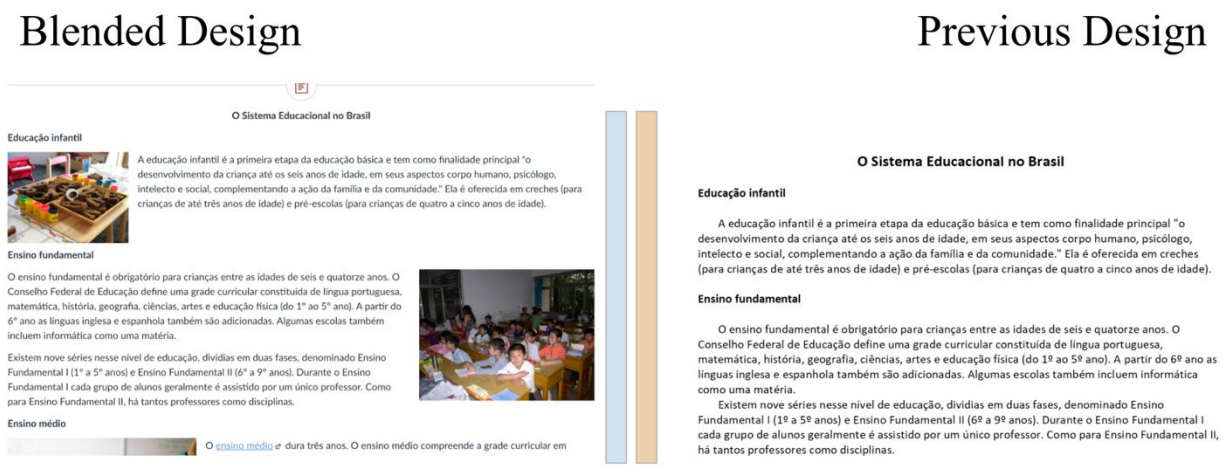
Jamie also made decisions based on her understanding of research around language learning methodologies. This section highlights an example of how online designs she proposed were influenced by her understanding of language learning research. The example has to do with the use of visual and audio scaffolding to reduce student anxiety about their comprehension.

Figure 11 shows an example of a blended and pre-blended reading comprehension text. In the pre-blended design reading texts were included in a packet learners received as part of

their course materials. These texts had a glossary of vocabulary words next to the reading to assist students in understanding more complicated or new words important to comprehending the text. Figure 11 shows a blended design where reading texts were moved to Canvas. The glossary words were hyperlinked to an English translation or description of the hyperlinked word for learners to click on, if necessary, as they read the text.

Figure 11

PowerPoint Slides on Artifacts: Reading Comprehension Text



In speaking about her decision to design reading comprehension this way she referenced Krashen's (1981) Affective Filter Theory, which posits that student's anxiety can function as a barrier to receiving and understanding the linguistic input that is necessary for language acquisition to occur. She mentioned:

> A theory that's super important is the affective filter, looking at if a student is stressed, right? The affective filter will go up and they won't be able to read or learn language in general and so providing reading with a lot of scaffolding hopefully lowers the affective filter and students are able to read and comprehend better. . . . We added visuals to help activate background knowledge we added comprehension questions throughout so that they could get a quick comprehension check with instant feedback . . . There's unlimited

> attempts, no stress for them and then before at the end of the PDF there was a list of vocab words that have little stars and you could if you didn't know the word you could go down and find it. In reading comprehension if you break your reading and you go and search for the word, you're gonna lose that comprehension you'll have to start that paragraph over, that sentence over. So, we added hovers so you can just hover your mouse over the word and it instantly pops it up so that breaks your reading process less and makes it easier to comprehend the text if you do need help with the vocab. So, these are all things that can only be done digitally and so we took advantage of those.

This example demonstrates how the instructional designer is making design decisions based on theories of language learning. She speaks to the way reading is offered well in an asynchronous realm, as affordances of technology allow us to offer learning opportunities to others that facilitate a lower affective filter.

Stakeholder Buy-in

Another prominent theme which was observed in our interview with Jamie included stakeholder buy in. She was asked if her way of processing decisions about what should be in person versus online was influenced by what she felt Dr. B, the content specialist, would be willing to implement. She responded in the affirmative, then spoke deeply about her thinking process. Some of her comments included the following summary speaking to the newness of ideas around integrating technology to improve language proficiency:

> So, this is new for language learning. This isn't something that has a lot of buy-in. I think technology has changed so much and I think those GoReacts really showed us how much you can actually do online with language. But I don't think that in this field that is widely accepted yet. . . . My hope is as people see the improvement for the students that they can

> then say, “Oh well I wonder what else we could improve by using technology for language.” So that we slowly, gradually move… it makes sense, right? . . . it is scary to make a lot of changes right up front. . . . we made a lot of changes, we could obviously make more but sometimes we want to make a few changes kind of see how they go, make a few more changes see how they go. It's kind of a gradual iterative process but I think there's a lot more we could still do with this course.

Sometimes Jamie expressed that she had other ideas for the course design, but then felt that Dr. B was not ready to implement the ideas in our present course design. Jamie mentioned that “sometimes it's hard to get buy-in.” She explained her understanding of where quick-wins could be made saying, “I think the way I make decisions about it depends a lot on the instructor goals and buy in. I think in this course my goal was to show that there are things you can do online with language learning, so taking easy wins such as reading and writing and listening and showing look the language can be learned online.”

Jamie felt that Dr. B was particularly reluctant to move synchronous interpersonal activities to the online modality, so for “[activities that] the teacher liked in the classroom we wouldn't really touch those” but rather focused on moving activities online that weren’t typically done synchronously in the classroom. She commented,

> From a language pedagogy approach on my end would be to say, “Hey let's move the things that aren’t interpersonal to online and focus the classroom kind of on interpersonal activities.”

Despite generally trying not to move interpersonal activities online, Jamie did try to find opportunities to introduce interpersonal interactions outside of class that could support in-class

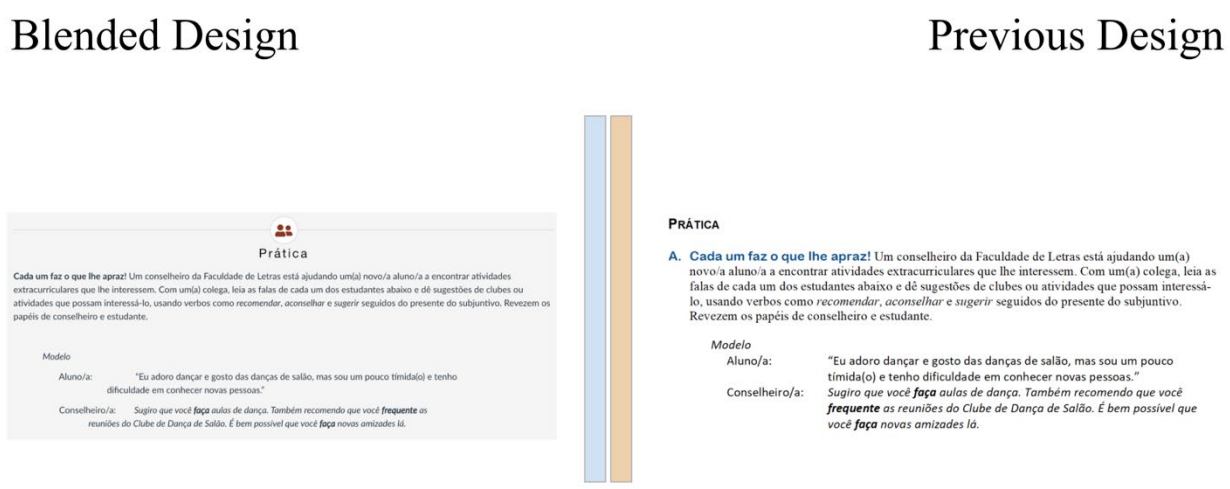
activities. One example of this was the use of warm-up questions in GoReact and text discussions to get students to begin using the vocabulary before class time. Jamie commented,

> But then [I] also kind of pushed boundaries where I did have those warm-up questions outside of the classroom to show that, "Look! We can do some interpersonal outside of the classroom as well." But I find that, yeah, that was a good approach for me for this course to say, things that aren't interpersonal, let's do those online and things that are interpersonal, let's do those in the classroom.

Figure 12 shows example artifacts from the blended and non-blended course where there were very few changes made between the previous and current design.

Figure 12

PowerPoint Slides on Artifacts: Model Speaking Practice



Basically, it was decided to only move instructions for this learning opportunity from a PDF to an online Canvas page. Jamie mentioned this was done at the request of Dr. B, even though she had ideas for how to do this online. In this case, because Dr. B felt that interpersonal activities were better done in-person, Jamie did not pursue her ideas for online activities here due to a perceived lack of buy-in.

Overall, it seems decisions made by our instructional designer, Jamie, included what she saw as best language pedagogy practice, while still respecting where others were at in their own opinions on blended language learning. It seemed to be a balance of offering her understanding of technology affordances while simultaneously respecting Dr. B's course design requests.

Dr. B.: Content Specialist Perspective

There emerging themes were noted with Dr. B, our content specialist, regarding his decisions in our design. These themes are shared in Table 2 with increased details in divided sections below.

Table 2

Emergent Content Specialist Themes

Emergent Theme	Brief Description
Affordances of Technology	Decisions were based upon specific affordances (or features) of the technological tools available.
Personal Buy-in	Decisions were based on what the content specialist perceived would best for language learning.

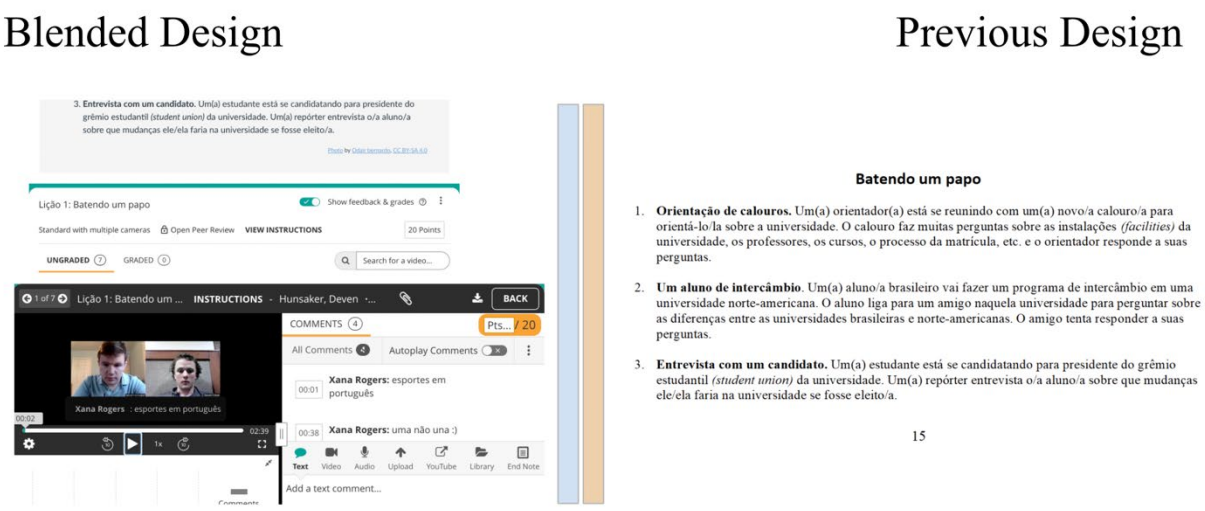
Affordances of Technology

Like the instructional designer, the Dr. B also made design decisions based on the affordances of the technologies used in the course. One example of this is related to the decision to use GoReact to support oral interviews in the course. Figure 13 compares artifacts from the blended and non-blended course involving oral interviews. In the non-blended design students scheduled an appointment and used the written prompts to complete a role play with another student in the presence of the instructor. Upon the completion of the interview, the instructor

would offer some feedback with a summative grade. In the blended design students recorded their role play in GoReact and the instructor would then watch their role play and provide embedded feedback within the tool. The affordances of the tool allowed the instructor to pause the recording at any time to provide feedback in a specific spot of the role play.

Figure 13

PowerPoint Slides on Artifacts: Unit Oral Interviews



The oral exams were role plays learners would participate in to demonstrate their command of thematic unit proficiency skills. In speaking to our design of unit oral interviews our content specialist eulogized this new course update:

> Previously, the teacher would just have the students make an appointment to come to the teacher's office. They'd do a little role play. The teacher would listen to it and give them each a grade, an individual grade and some feedback. And now they record them on GoReact. I think this is a huge improvement because the teacher can rewind it if they want to re-listen to part of it. They can give specific comments at specific moments in students recording, rather than having to wait until the end. And it doesn't necessarily require any more of the teacher's time because they don't have to listen to the GoReact

> recording more than once. But again, it gives the teacher, the option of getting more specific feedback. And, and it gives the students, the option to go back. I mean this is super super important. It gives to students to go back and listen to their own recording if they're brave enough to do so. And access that feedback, so I think this is huge.

This citation demonstrates some of the affordances of technology we were able to leverage as we designed our blended language course. The affordances offered with GoReact drove his decision to offer this particular learning opportunity online where it had previously been done in person. In addition, GoReact affords time and space flexibility for learners, as well as instructors. No longer were they restrained by scheduling or meeting in person at the instructor's office. Observing these benefits lead to this design decision being implemented.

Personal Buy-in

In reviewing the history of PORT 202, Dr. B shared it was originally designed as a blended language course to increase time flexibility for learners. Reflecting on the reason we initially decided to offer PORT 202 as a blended course in Fall 2019 he reported:

> One of the arguments . . . made to us was that it could possibly help increase enrollments in the course because rather than meeting daily it would only meet Monday, Wednesday, Friday. And the Tuesday, Thursday activities would blend. The out of class activities would be asynchronous so students could do those any time of day. So that's how this class came about as far as the effectiveness of online and blended.

So initial buy-in for creating a blended PORT 202 course came from the idea that additional flexibility that came from having asynchronous activities would allow for the possibility of greater enrollments. Unfortunately, the timing of the course redesign was such that the blended course was being developed during the same semester that it was being taught. This meant that

the design team was developing online content, at best, a couple weeks ahead of when it was to be used in the class. Dr. B noted that there was at least once during the semester when online content was not ready at the time that it was needed for a synchronous course session. It is possible that the tight implementation timing may have had an influence on Dr. B's willingness to buy-in to as many innovations as instructional designers Jamie and Camellia hoped for.

Additionally, Dr. B didn't accept some proposed online activities because of his perspectives on the pedagogical value of doing the activities in person. Figure 11 above shows the context for this example. It is a reading comprehension text used in both blended and non-blended designs. Dr. B chose not to use online pre-reading activities, but rather to continue pre-activities in person only. He decided to do so based on his own understanding of online mediums for language proficiency development. Speaking about pre-reading, he reported, "the most important purpose of pre-reading activities is to activate student's background knowledge about the topic and the genre . . . we're previewing and at the same time we're introducing vocabulary that maybe is going to come up." He later shares his reasoning for continuing to offer pre-reading in person versus online:

> My reason for still doing the pre-reading activities synchronously is activities that are more challenging to students, that are pushing them slightly beyond their current level and that require more scaffolding, I think it's helpful for the teacher to do synchronously because they can gauge the students' reaction, they can see, they can assess informally. Are they getting this? Do I need to explain more? Do I need to explain unfamiliar vocabulary words? That's why I put those types of activities still in the synchronous class.

When asked if he imagined the possibility of doing pre-reading online he answered:

> In my experience, especially students who struggle more, they really, really benefit from doing this with the teacher. The students who are maybe more independent or have more advanced language skills can probably handle it just fine on their own outside of class. I'm concerned about not leaving behind the strugglers which, in my experience, tends to happen in more difficult activities that require more scaffolding, if, they don't have an opportunity to interact with the teacher.

He continued:

> Research on reading and listening comprehension has found that probably the key factor in whether students comprehend a challenging text or not is whether they're activating the right schemata, the right background knowledge, before.

He reported on a situation when a learner had incorrect expectations for a reading so then they activated the wrong schemata. This resulted in that particular learner not understanding the reading. Dr. B mentioned on several occasions that one of the main reasons teachers should plan pre-reading learning opportunities is to assist students in activating the right schemata. He felt the pre-reading would best be done in person. However, in wrapping up our conversation about his decisions regarding reading comprehension, he concluded, “maybe it's possible to do that asynchronously. My expertise in that area is not such that I would know how to set that kind of thing up effectively asynchronously.” Originally, he had mentioned it best to facilitate pre-reading in person; however, it seems with increased understanding of opportunities online mediums offer it may indeed be possible to attain similar objectives teaching reading, that previously were only imagined possible in person.

In conclusion, there are an interesting combination of factors that played into Dr. B’s willingness to buy in to particular online activities for the course. At a global level, there was a

desire to create student flexibility that might increase students' willingness to enroll in the course. At an activity level (as in the case with the pre-reading example), successful past in-class experiences led to a reluctance to buy into new untried online activities. Trying to build activities right before they were taught live during the semester also led to stressful circumstances that may have played a role in the number of new things that Dr. B was willing to try.

Emelia: Undergraduate Instructor Perspective

At our institution PORT 202 is normally instructed by graduated students. However, in some circumstances undergraduate students instruct courses as needed. Our instructor is an undergraduate student studying Portuguese at BYU. She also was hired to teach PORT 202 because of a department need. Her perspective reflects moments both teaching and learning Portuguese at a university setting. She was not a decision influencer in course design but attended our team meetings to provide feedback on how our decision designs were received by her and her students. In our interview with her, three main themes were identified. The themes are outlined in Table 3 with additional comments in the sections below.

Table 3

Emergent Instructor Themes

Emergent Theme	Brief Description
Affordances of Technology	Feedback on specific affordances (or features) of the technological tools available.
Student Comments	Report about comments shared from students' perspectives regarding course design decisions.
Online Assessment	Concerns about online assessment and preference for in-person testing.

Affordances of Technology

Emelia provided feedback on three affordances of the online course that she found very valuable. The first had to do with the ability to give and receive feedback within GoReact. The second had to do with how the course design made supplementary course materials easily accessible by students. The third had to do with how the inclusion of Teacher Notes allowed her to learn and perform her job.

First, GoReact offers several innovative recording features, insightful analytic features, technical features, as well as advanced feedback features. Emelia reported that the combination of these features facilitated her completing some of her instructing responsibilities. She specifically reported, "I love GoReact videos. . . . They've been super nice for the instant feedback afterwards, that you can mark exactly what word they're saying wrong and stuff like that." She continued by commenting on how valuable it is for an instructor to have access to her learners' video recordings to watch at her convenience while being able to provide personalized

feedback to all of them, a feat she mentioned would be impossible without the affordance of technology. In speaking about the time stamp feature GoReact offers she reported, “it's easy to be watching that video and quickly type in something and keep watching and quickly type in something. I was able to give so much more feedback on those GoReacts than I ever would have been able to if they would have just recorded a video.”

Second, the original PORT 202 contained course materials from several different sources. It included a textbook, a workbook, a packet and a CD. The CD has audio recordings that go with some textbook readings and assignments. In the blended course design, audio recordings were embedded into Canvas to facilitate completion of learning tasks that require listening to an audio. Our instructor commended our organization of required materials, specifically reporting on the ease a blended course design offered in providing resources to learners. She mentioned, “not having to put a CD in . . . makes things so easy. . . . You listen to the audio and then your questions are already there. Other than having to go find it on a website or do something.” She continued:

> I think that made things really easy and it used a part of language learning that's not as often used. In all my Portuguese classes very rarely do I get opportunities where I'm listening to something and then answering questions 'cause it's just harder, it's harder to do that. … I can't even tell you how many language classes I've been where there's been a CD in the back but you don't touch it, just 'cause it's harder. . . . But in an online format like this you have an opportunity to do that and then you're learning a little bit better and you're learning how to listen to how Brazilians say things.

Additionally, the textbook required for PORT 202 includes simple grammar instruction with accompanying practice questions. Answers are located in the back of the book for students to

check their work. The blended design created interactive grammar questions that provided automatic scoring and feedback. The original course also included a printed packet, which included various learning opportunities organized by unit, as well as additional grammar explanations with its own practice questions. These questions did not have answers for learners to check their work. The course instructor was responsible for correcting practice questions done by students. The blended design used H5P to provide students with interactive practice with instant feedback when completing these grammar tasks.

In an instructor position, the affordances of using technology advances, such as designing learning tasks with H5P proved beneficial. In speaking directly to artifacts designed with H5P, Emelia commented:

> It's impossible to be walking around over everyone's answers and automatically correcting it, and automatically making sure they have it, or even just verifying that every student is really putting their best foot forward and not looking at the other student or waiting for the other students to conjugate the verb. And so that was the good part of learning grammar that way. They're filling in the blanks, and automatically they were told this is wrong or if this is right, and then they could work at their own pace, which is something that doesn't happen in the classroom.

Finally, since this course is instructed by transient graduate students or on an "as needed" basis by undergraduate students we decided to design a page that offers support to new teachers. Historically, an outline of course materials, content and a tentative instruction calendar were provided to new teachers assigned to instruct PORT 202. Figure 14 compares artifacts that show our blended design of teacher notes versus the format of a document new teachers had previously received upon assignment to teach PORT 202.

Figure 14

PowerPoint Slides on Artifacts: Teacher Notes

Blended Design

Teacher Notes

	In Class/Online	Homework
Monday (in class)	• Integrated Performance Assessment (50 minutes)	• Lição 2 – O Tempo e o Clima: Estudar vocabulário: O tempo; outras expressões; atividades (*Apostila*, p. 26)
Tuesday (online)	• O tempo: ◦ Artigo: "Fernando de Noronha" (*NAB*, 82-83 D1) – atividade "certo ou errado" p. 82 ◦ Áudio: Boletim meteorológico (*NAB*, 83 D2) – perguntas 1 e 2	• Prática com vocabulário do tempo: • *NAB*, 81: A2 no. 1 ("Preencha com as palavras da caixa") • *NAB*, 16: E1 Campos de palavras
Wednesday (in class)	• O tempo: ◦ *Apostila*, 27: Perguntas Indiscretas ◦ *NAB*, 10: A1 O que a gente vai fazer?	• Palavras cruzadas: O tempo OR *Apostila*, p. 84 10: Escrever resposta ao email

Previous Design

Calendário
AP = apostila (course packet)
LT = livro texto
LE = livro de exercícios
Capítulo 1: Escola, universidade e carreiras

	Atividades em aula	Tarefa para a próxima aula
7 de jan	Introdução à disciplina	Ler: AP 5-6 Fazer: LT 1 (1-2)
8 de jan	O sistema escolar AP 6, LT 2-3	Ler: AP 7-9 Fazer: LE 77 A2
9 de jan	O sistema educacional no Brasil AP 7-9	Ler: AP 9-12 Fazer: AP 23 (A-B)
10 de jan	O presente do subjuntivo; o presente do subjuntivo nas orações substantivas	Ler: AP 14-15 Fazer: LE 77-78 B4 (1-4)

Previously, instructor notes included a calendar in a PDF that outlined topics to be covered on certain days. However, PORT 202 includes materials from multiple sources. It has a course textbook, course workbook, course packet and a course CD. Consequently, it may seem intimidating for a new instructor to try to organize materials well. Our instructor commented on the benefit these Teacher Notes offered, "I love teacher notes; I think it's something that should be incorporated in all classroom things. . . . I had my own teacher notes that I could follow as I was going on, and I could really see things and I could plan out timewise what everything was, and it was just all nice and in one place." The design of teacher notes included links to applicable Canvas pages, hyperlinked audios or videos, instructional prompts and lesson scaffolding. These Teacher Notes were important to our instructor as she found substantial benefit in the support they provided her as a new language teacher.

Student Comments

We did not directly ask students their opinion on our course design. It was not our intention at this point in our design to obtain official data on students' perceptions of our blended

language course. However, Emelia did report on student perspectives shared with her as our course was used by those enrolled in PORT 202. She shared perspectives about the value of GoReact feedback and course organization that facilitated makeup opportunities.

One of the affordances of GoReact is self-recorded videos, which can be recorded live on the web or on an app. Individuals can then upload recorded videos to an LMS system. The ease of recording increased the quantity of recordings students could produce to complete learning tasks. Consequently, learners were able to observe themselves speak with increased frequency.

Our instructor applauded GoReact's features offered in various artifacts we designed in our blended course. She reported on feedback and self-reflection, stating, "the students to be able to see and hear themselves speaking the language, that was super relevant and super helpful for them. Plus, they all liked it." She continued, "it makes a huge difference for the student because they're able to get all that feedback and see exactly, 'oh I'm pronouncing that word this way,' or 'oh, that word is wrong that I said,' and being able to look back at the time stamps." The use of GoReact increased feedback and self-reflection opportunities with ease in PORT 202.

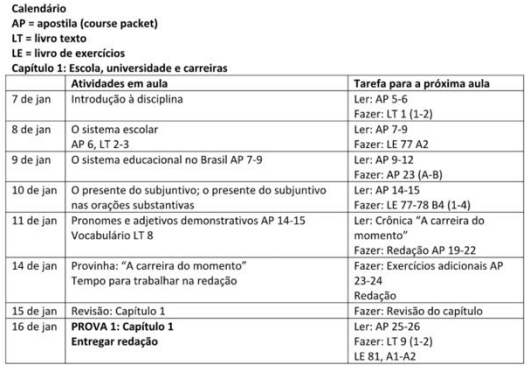
We have spoken about the complexity of course materials for PORT 202 from an instructor perspective, but those same scattered resources when organized into one place also benefit learners. Figure 15 shows example artifacts from the blended and non-blended course that communicate both designs. On the left is a screenshot of a weekly overview page from our blended language course. On the right shows a document students received with their course syllabus.

Figure 15

PowerPoint Slides on Artifacts: Week Overview

Blended Design

Previous Design



Calendário
AP = apostila (course packet)
LT = livro texto
LE = livro de exercícios
Capítulo 1: Escola, universidade e carreiras

	Atividades em aula	Tarefa para a próxima aula
7 de jan	Introdução à disciplina	Ler: AP 5-6 Fazer: LT 1 (1-2)
8 de jan	O sistema escolar AP 6, LT 2-3	Ler: AP 7-9 Fazer: LE 77 A2
9 de jan	O sistema educacional no Brasil AP 7-9	Ler: AP 9-12 Fazer: AP 23 (A-B)
10 de jan	O presente do subjuntivo; o presente do subjuntivo nas orações substantivas	Ler: AP 14-15 Fazer: LE 77-78 B4 (1-4)
11 de jan	Pronomes e adjetivos demonstrativos AP 14-15 Vocabulário LT 8	Ler: Crônica "A carreira do momento" Fazer: Redação AP 19-22
14 de jan	Provinha: "A carreira do momento" Tempo para trabalhar na redação	Fazer: Exercícios adicionais AP 23-24 Redação
15 de jan	Revisão: Capítulo 1	Fazer: Revisão do capítulo
16 de jan	**PROVA 1: Capítulo 1** **Entregar redação**	Ler: AP 25-26 Fazer: LT 9 (1-2) LE 81, A1-A2

Historically, students received a calendar which outlined dates with accompanying learning topics. In our new design we decided to include a more interactive page on Canvas. This page included color with accompanying icons to represent different types of learning tasks. Also, links were provided to all learning opportunities to facilitate access to course materials. In reporting on this, Emelia shared:

> If a student misses the day they can get on and see, "oh this is what we did in class and these are the links to what we did in class and there's a link for my homework today." It's just easy, you look at a calendar it's just easy and sometimes, I know everybody's been in that class where they're like, "oh what am I going to miss on this day," and the professor is like, "oh you won't miss much don't worry about it," you're like, "no, but what activities did I miss or how can I be at the same level everybody else is?" so I think that was nice.

Online Assessment

Another emergent theme was stakeholder buy-in. Our instructor had her own opinions about learning opportunities that were best done in person or online. She expressed several times her concern about assessing online. She worried that online assessments did not protect the integrity of evaluations facilitated to learners. Historically, assessments in PORT 202 were offered in person on paper during a scheduled class period. In our blended design we moved assessments into Canvas. Often discussions about online assessments included conversations around cheating and different tools available, such as Proctorio, that assist in digital testing integrity. Proctorio is a platform that offers different security tools to protect honesty in assessments. Some features of Proctorio include identity verification, plagiarism detection tools, as well as recording of your webcam. We later designed assessments to use Proctorio to proctor exams. However, she mentioned she preferred facilitating them in person. She specifically reported:

> I don't know if you even heard about this, we had a few students that were cheating. . . . You can tell on Canvas when they're jumping on and off the page and then running off the page to Google translator. On Canvas it shows, it's the nice part is you know they're cheating. . . . That was a really hard part of it. I don't know if using Proctorio or those types of things helped more towards the end ‘cause they felt like they needed to stay on the screen. Their screen is being recorded. But in the beginning we weren't using that, that was more when I think cheating happened if I remember correctly.

She continued, “. . . having them take their tests in person and they're sitting there and I know if they're cheating. I know what they're doing they're not tempted to look at outside sources they just sit there. I have a paper and they're writing it.” Sometimes decisions to include an

assessment or learning task online versus in person would consist of conversations involving the best ways to diminish cheating. Our instructor seemed to sense it was better to offer assessments in person.

CHAPTER 5

Discussion

This study has examined the decisions that were made in the process of designing a blended second-year Portuguese course. The purpose of the research was to better understand how decisions were being made regarding what course activities would be taught online and what would be taught in person. The findings highlighted similarities and differences in the design thinking of the different members of the team. For example, the concept of how affordances of the online technologies influenced what online activities were valued was a common thread or theme across all interviewees. The themes of "stakeholder buy in" for the instructional designer and "personal buy in" for the content specialist often highlighted differences in beliefs about what should be online.

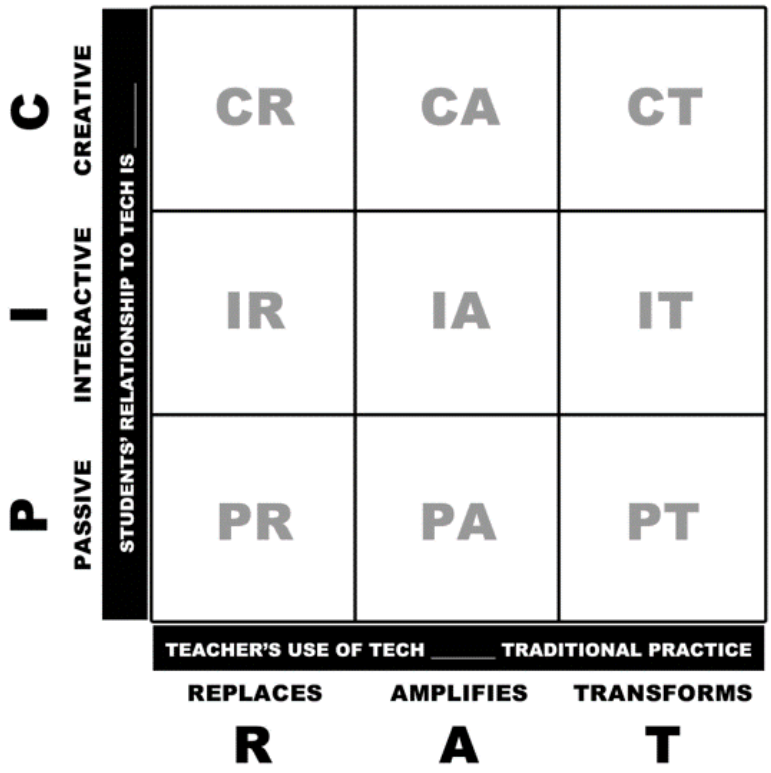
For this discussion we will look at two big ideas that are important discoveries from the research that could have implications for future design teams working to create blended language courses. The first big idea that we will discuss has to do with the stakeholders' views on what technology affordances were valued for creating blended activities and what affordances may have not been considered fully. The second big idea centers around the adoption or "buy in" for instructional innovations in a blended design. On any given design team, instructional designers typically do not have final decision-making authority. Their job is to ultimately generate ideas with the team and then get "buy in" or approval from the content specialist or course owner on changes. These two ideas of (1) navigating technology affordances in course redesign and (2) the process of adoption or getting buy in for blended changes will be discussed in light of research in the following sections.

Navigating Technology Affordances in Course Redesign

The first idea we will explore is how different features (or affordances) of technology enable learning activities that are ultimately chosen for use in the course redesign. While there are many educational technology models that address this process, we will primarily focus here on the PICRAT model (Kimmons, et al., 2021) because it explicitly addresses student use of technology (PIC) as well as how technology affects teacher practice (RAT). Please see the literature review section of this paper and Figure 16 for a review of the model.

Figure 16

PICRAT Matrix (Kimmons et al., 2021, Figure 5)



Overall, interviewees talked positively about many affordances of technology and they mentioned how these affordances influenced their design decisions. In particular, there were two

technologies that were regularly mentioned: the use of H5P for vocabulary and grammar practice and feedback activities, and the use of GoReact for speaking practice and feedback.

Kimmons et al. (2021) reported that initially, most teachers will adopt a passive replacement of course materials when they begin to integrate technology. In a blended or online learning context this might look like replacing paper-based course materials or instructions with digital instructions or even replacing in-person lecture with video recordings of a lecture. We did see a significant amount of this in the redesigned PORT 202 course. Many of Emelia's (the instructor) interview comments had to do with the convenience that came from digitized materials that were now more readily accessible all in one place. The Passive-Replacement adoptions are not poor practice according to Kimmons, but typically "no justifiable advantage to student learning outcomes is achieved" (p. 49). In this case Emelia felt that in an online context digital access may provide a slight advantage if students are reluctant to access physical materials (like audio CDs at the back of the book) because of inconvenience.

Most of the affordances mentioned by the interviewees would fall in the Interactive-Amplifying quadrant of the PICRAT matrix. They involved students in *interactive* online activities and the affordances of the activity offered some relative advantage or amplification over the non-online option. H5P activities for vocabulary and grammar practice were a great example of this. Jamie reported H5P facilitated reading, speaking, listening and writing in language learning. One example was designing H5P flashcards. This allowed the design team to add images, audio, and potential speaking practice with immediate feedback to a vocabulary section that previously only included a list of words in a PDF. Dr. B also commented on H5P as a beneficial contribution to PORT 202. He noticed it saved valuable time in person to no longer need to correct homework assignments on grammar that could easily be graded for students

online. Emelia concluded that H5P facilitated grammar practice at the pace of the learner, as well as provided each student immediate feedback, something she admitted would be impossible to do without the technology integration. She shared, “it's impossible to be walking around over everyone's answers and automatically correcting it.”

Another example of an interactive technology use that might be considered amplifying or transformative was the use of GoReact to facilitate student role play and provide targeted feedback for oral interviews. In these cases, the affordances of GoReact allowed the instructor to provide an amount and specificity of feedback on a student oral performance that would be very difficult if not impossible otherwise. Jamie metioned that GoReact allowed her to push boundaries in designing PORT 202. She expressed, “I think those GoReacts really showed us how much you can actually do online with language.” Dr. B additionally expressed benefit in using GoReact for oral interviews. Previously, students and teachers met in an office at a scheduled time to perform role plays. The teacher, upon completion of the role play, would share some feedback. The new course design leveraged technology integration, using GoReact as the medium in which these role plays were administered. Dr. B shared, “I think this is a huge improvement because the teacher can rewind it if they want to re-listen to part of it. They can give specific comments at specific moments in students recording, rather than having to wait until the end.” Emelia specifically shared that GoReact offers many useful features that assist her in her role as an instructor. She commented, “it's easy to be watching that video and quickly type in something and keep watching and quickly type in something. I was able to give so much more feedback on those GoReacts than I ever would have been able to if they would have just recorded a video.”

The PICRAT matrix offers teachers and designers direction to consider critically design decisions made and it offers a vision of creative transformation in consequence to technology integration. For example, when considering whether to move an activity from the in-person classroom online, design teams can consider how and if it was changing student activity to be more interactive or even allow students to use their knowledge to create artifacts. Alternatively, design teams might be able to reject options that move an interactive in-person activity to a passive online activity. Finally, consideration of the RAT dimension of the PICRAT framework for each redesigned activity being created allows design teams to consider whether a proposed online activity is just replacing an in-person activity (which might lead to improved access but rarely improved learning outcomes) or if it is providing a small (amplifying) or large (transforming) learning advantage.

The Process of Adoption or Getting Buy-In

This research highlighted that there were differences in what the instructional designers were hoping for and what the content specialist was willing to try. An example of this from the findings is in the discussion about interpersonal learning opportunities online. Figure 12 shows marginal changes to an interpersonal task. Dr. B asked for these tasks to be left the same, only to move the instructions from the PDF online in a Canvas page. Jamie had other ideas, however as Dr. B reported interpersonal learning was best done in person, Jamie did not pursue her new design ideas. One lens for looking at the buy in process and what might be done differently in the future comes from Rogers' (1962) *Diffusion of Innovation* theory. This theory posits five characteristics of innovations that are likely to be adopted successfully. Table 4 highlights the five characteristics of Rogers' theory.

Table 4

Diffusion of Innovation – Characteristics of Innovations (Rogers, 1962)

Characteristics	Brief Description
Relative Advantage	Degree in which innovation appears to be better than other alternatives.
Trialability	Degree in which innovation may be used for a limited time.
Observability	Degree in which innovation and its results may be seen by others.
Compatibility	Degree in which innovation is consistent to existing values.
Complexity	Degree in which innovation is see as difficult to understand or use.

If we consider each new online activity idea to be an innovation that will be adopted or rejected, we can consider them in the light of each of these principles.

Two innovations from the course redesign that we will consider are (1) grammar practice activities with H5P and (2) online pre-reading activities. Jamie proposed using H5P for grammar practice as the relative advantage was high. Grammar practice activities facilitated immediate feedback, freeing up classroom instruction time. Grammar practice activities were also readily available to try and observe on a limited basis before adopting across the course. This trialability and observability allowed Dr. B to determine that it was good to implement in our course redesign. We believe that the application of online grammar practice activities was consistent with existing values because Dr. B valued practice with immediate feedback as a pedagogical approach to grammar acquisition. The grammar practice activities were actually intuitive and easier to use than the previous text-based approach because students could get immediate feedback without having to check the back of the book or wait for instructor grading. We believe

that the grammar practice activities were readily adopted because each of Rogers' five conditions were strongly addressed.

In contrast, attempts to adopt the proposed online pre-reading activities were rejected. In terms of the compatibility condition, Jamie and Dr. B shared different ideas and values regarding interpersonal pre-reading activities online. Dr. B interpersonal was best done in person, while Jamie had other ideas of ways to facilitate interpersonal learning online. Jamie was not able to make a persuasive case to Dr. B regarding the relative advantage of doing pre-reading activities for literary texts online instead of in the classroom. Jamie expressed that sometimes she made decisions based on Dr. B's perceived buy in. In discussions around pre-reading, Dr. B assumed pre-reading would be best done in person. However, he later admitted, "maybe it's possible to do that asynchronously. My expertise in that area is not such that I would know how to set that kind of thing up effectively asynchronously."

We also conclude that trialability and observability of the innovation were also low. This may have been exacerbated by the fact that the course was being developed during the very semester that it was being taught. When instructors are feeling a time stress, they are often less willing to try an innovation, even for a limited time, because of the uncertainty and additional stress it can add to the course, especially if the innovation cannot be implemented in time to keep up with the course schedule. Finally, this online pre-reading activity that seemed promising by Jamie may have been seen as too complex for the present moment by Dr. B as time was very tight and the current in-person pre-reading activity was well understood and comfortable to the experienced teacher.

Ultimately, Rogers' (1962) theory on *Diffusion of Innovations* gives us insight into practices that could help design teams navigate proposed pedagogical innovations more

effectively. Attention specifically could be given to the five characteristics of innovations outlined in Table 4 that might help increase the chances that a new online pedagogical innovation is seriously considered for adoption during course redesign.

Limitations

This study was limited in its scope due to the fact that we only looked at one design team for one semester instructing only one language/level. Our design team, as well included an instructor who had never instructed Portuguese previously. Additionally, a serious limitation was that we were designing this course the semester it was being taught. Perhaps the process would have been different if we had designed a course that was not being offered at the same time. This limitation influenced our design meetings as it was necessary to discuss issues that were present with the live course instead of being entirely focused to actual design decision. Consequently, we were not able to dive as deep as we had intended in using frameworks to assist our decisions while designing a blended language course.

Also, as a researcher and design team member my observations may be biased. I had instructed this course before so I had preconceived ideas of methods I would choose to teach it. These ideas may not have matched the disposition, experience, or interest of the other instructor hired to teach. I also had been an Instructional Design Assistant involved in designing other language courses for BYU Online. I had seen some beautifully designed courses that provided transformative language learning opportunities with facilitated student interaction. Sometimes, I had a vision for this course in my mind, so I shared ideas trusting they would be successful as I had seen a similar layout in other courses I had been involved in designing.

Furthermore, I was removed from seeing the course as an instructor as I focused on its design. Consequently, it was a bit harder to observe student interaction to content, students, and

the instructor. Online or blended language courses require a skilled and significant teacher presence online during asynchronous assignments to offer the best learning opportunities for learners. However, I was not the instructor. This limited my influence on student-instructor interaction.

Implications for Future Research

This study, even with its limitations, identifies several directions for future research. It is likely that post-pandemic there will be an increased emphasis on blended language learning. University faculty will be keen to understand what elements of their courses will be best moved online and which will be best kept in person. This study just scratched the surface in terms of understanding one team's decisions regarding this question. Many more case studies and inquiries across languages and levels need to be conducted. Also, in addition to getting instructor and designer perspectives, it would be valuable for future research to also get student perspectives on what practices are useful and valuable to them.

Finally, it is likely that the use of instructional designers in the course redesign process will become more prevalent. Research related to the interaction dynamics that happen during the design process would also be an interesting avenue of inquiry. It was clear from this case study that conditions were not ideal for the trialability and observability of some new online pedagogical practices. Future studies might look at how specific pedagogical innovations are negotiated with stakeholders and what common values can be addressed in the conversations. It might be worthwhile to use a specific framework, such as the PICRAT framework, to explicitly articulate and discuss the relative advantage of one pedagogical practice over another.

Implications for Practitioners

It is intended that practitioners may benefit from this study as they observe the reasons why decisions were made regarding technology integration. Practitioners should be able to see in this study that decisions were based on pedagogy, language learning methods, and best language instructional practices. It is important for practitioners to notice in our study what Gleason (2013) reported, "A major concern in the field of computer- assisted language learning is that pedagogy needs to drive technology, not the other way around" (p. 605). All decisions made, primarily by our instructional designer and our content specialist, were driven by pedagogy. To see success in a blended language course, technology integration needs to follow Gleason's pattern. In my conversations with our team during our weekly discussions and our semi-structured interviews, it was apparent that we did follow Huang et al. (2010) when they stated that instructional design should be based on methodology. Therefore, this study may assist others in identifying sound practices for language learning and then use best methods to determine course design decisions for languages pertinent to their specific areas of interest and need.

Conclusion

Overall, this study aimed to explore blended language learning as an increasing interest for many institutions of higher education. It was observed that research has yet to define a smooth process for re-designing previous in-person courses to be blended. We chose to highlight the decision process in course redesign. The participants had real conversations about the implications of our design choices and were not always in agreement about what pedagogical innovations should be adopted. We discovered several important themes that characterized the decision making of the design team participants. We also discussed how the use of technology integration models such as PICRAT (Kimmons, et al., 2021) might be useful in guiding future

design team discussions. We also explored how characteristics of innovations as described by Rogers (1962), if attended to by instructional designers, can facilitate or detract from the adoption of online pedagogical practices. We anticipate this study will be of interest to language teaching professionals as they seek to offer language courses in a blended format, adding one more study for others to reference as we navigate new language instructional options in our world today.

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APPENDIX A

Institutional Review Board Approval Letter

Memorandum
To: Michael Child, Ph.D.
Department: BYU - HUM - Spanish and Portuguese
From: Sandee Aina, MPA, HRPP Associate Director
Wayne Larsen, MAcc, IRB Administrator
Date: April 05, 2021
IRB#: IRB2021-083
Title: Blended Language Learning: Blended Language Learning: The Decision-Making Process in Designing a Blended Portuguese Course

Brigham Young University's IRB has approved the research study referenced in the subject heading as exempt level, categories 1 and 2.

This study does not require an annual continuing review. Each year near the anniversary of the approval date, you will receive an email reminding you of your obligations as a researcher and to check on the status of the study. You will receive this email each year until you close the study.

The study is approved as of 04/05/2021. Please reference your assigned IRB identification number in any correspondence with the IRB.

Continued approval is conditional upon your compliance with the following requirements:
1. A copy of the approved informed consent statement can be found in iRIS. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
2. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
3. All recruiting tools must be submitted and approved by the IRB prior to use.
4. Instructions to access approved documents, submit modfications, report adverse events, can be found on the IRB website, iRIS guide: https://irb.byu.edu/iris-training-resources
5. All non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB. Please refer to the IRB website for more information.

APPENDIX B

Semi-Structured Interview Questions

Intro: The context of this study is that the team was transitioning a fully in-person course to a blended course where some elements are taught in person and some course elements were taught online. Just as a reminder some of the things that we did online were:

- Share a list of design elements with them
- Strategically select some artifacts from the list of course design elements
    - Which of these do you like the most/least? Or which would you like to start with? (let the interviewee have some say in the artifacts that we start with)
- Share the before/after slide for the design element with details.
- Use the following questions

1. (PIC) Does the description of the before and after listed on the slide seem accurate?
    1. If no, follow-up with questions to better understand perspective to make before/after more accurate.
    2. Make sure to understand what was typically being done in the in-person classroom.
    3. Which of the two options do you think is actually better for student learning? Why?
2. (RAT) Strengths/Limitations
    a. What are the strengths/advantages of the blended approach with this activity?
        1. Does this activity allow the teacher or students to do something that was difficult or impossible just in person?
        2. Does this activity allow you or students to have increased efficiency in the learning process?
        3. How does this activity impact student access/flexibility in learning? Is this an important outcomes
    b. What are the limitations of the blended approach with this activity?

What other design options did you consider for this activity?

a. Why did you decide not to go with the other options?