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Challenges in Using Cloud Technology for Promoting Learner Autonomy in a Spanish Language Course: Reshaping Pedagogical Design

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Integration of Cloud Technologies in Digitally Networked Classrooms and Learning Communities

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Chapter 16

Challenges in Using Cloud Technology for Promoting Learner Autonomy in a Spanish Language Course: Reshaping Pedagogical Design

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ABSTRACT

In a digitally networked classroom, the learner connects with peers, instructors, and open resources, be they human experts or online resources in non-linear combinations. As a result, the learner must navigate a complex web of associations and pathways. Thus the teacher practitioner who uses the networked medium as the platform for facilitating language learning has the challenge of developing methodologies, task-based activities, and a selection of tools to frame a learning ground that will provide maximum opportunity for the student to strengthen learning. This chapter will present a case study of a teacher practitioner's pedagogical design process in an online undergraduate course, "Advanced Grammar and Culture through Social Media." The main focus of this case study is to identify key challenges for pedagogical design and offer the rhizomatic approach as a model to promote learner autonomy.

INTRODUCTION

Empowering language learning students to develop autonomously seems more attainable today than ever before because of networked environments using cloud technology tools. These tools have the innate ability to create connected learning communities and to place language learning within a global-

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ized sociocultural context. This should be an immense advantage to educators in promoting autonomy. Learners could take charge of their learning (Holec, 1981, p.3) by framing their own language learning goals and sculpting their individualized paths to develop autonomously. Merely situating students with a networked environment, however, cannot guarantee the emergence of autonomy. Pedagogical design also has a crucial role to play in shaping student participation and attitudes, and in providing accessible opportunities. Pedagogical design is defined by Romiszowski as “any systematic choice and use of procedures, methods, prescriptions, and devices in order to bring about effective, efficient, and productive learning” (as qtd. in Halttunen, 2011, p. 62). In a digitally networked classroom, the learner connects with peers, instructors, and open resources, be they human experts or online resources in non-linear combinations. As a result, the learner must navigate a complex web of associations and pathways. Thus the teacher practitioner who uses the networked medium as the platform for facilitating language learning has the challenge of developing methodologies, activities, and a selection of tools to frame a learning ground that will provide maximum opportunity for the student to strengthen learning. Formulating this design and arriving at such an optimal template can pose several challenges for course design. (For a review about the importance of networked learning, see Goodyear et al., 2004).

Even before this age of digital disruption, foreign language teaching has been at the forefront of autonomy studies for more than four decades, starting with the publication of *Autonomy and Foreign Language Learning* by Holec in 1979. According to Little (2003), “if language learning depends crucially on language use, learners who enjoy a high degree of social autonomy in their learning environment should find it easier than otherwise to master the full range of discourse roles on which effective spontaneous communication depends.”

The learning space within the digitally networked classroom is non-linear by default. The inability to predict what the next nodal connection will bring to the student’s learning path is the norm, not the outlier. Under these conditions, how can the teacher practitioner, who is working within a formal education system that imposes the boundaries of a Learning Management System (LMS) space and semester-based timelines, design a course that truly promotes autonomy?

This chapter will present a case study of a teacher practitioner’s pedagogical design process in an online undergraduate course, “Advanced Grammar and Culture through Social Media.” The main focus of this case study is a professional development exercise in which the teacher practitioner went through one cycle of planning, piloting, reflecting on results, and identifying key challenges.

There were three main pedagogical objectives for integrating cloud technologies in this course: the first was to innovatively use an assemblage of cloud technology tools in order to build a suitable learning environment for the students in a way that cannot usually be achieved in face-to-face settings. The second objective was to map out a methodology for exposing students to the sociocultural components available in a global setting via cloud technology tools. The third objective, in keeping with the decades of foreign language research in autonomy studies, was to use multiple pathways of learning as an avenue for the development of learner autonomy.

The final assignment in the course was for each student to create his or her own personal learning network (PLN) for the continuation of their Spanish studies. Students were required to do this using cloud technology tools such as Google+ communities, Google Hangouts, Tackk, and Instagram. Each student creating a PLN with these cloud technology tools employed a unique process to arrive at a final product, and was expected to autonomously enhance his or her Spanish language competency. Warschauer and Liaw’s (2011) evaluation of emerging technologies validates the potential of emerging technologies for

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language learning in such contexts. They “provide flexible means to develop language and literacy skills through authentic communication, collaboration, networking and scaffolding. They represent autonomous learning tools that can be placed in the hands of each individual learner, thus offering excellent ways to meet the needs of diverse students” (Warschauer & Liaw, 2011, p.116).

In examining the results from the case study, it became evident that there were gaps between the intended pedagogical design of promoting learner autonomy and learning outcomes. The limitations shown by the study can help to identify pedagogical challenges relating to access, participation, and learner attitude.

Through the lens of these key challenges, this chapter will explore this fundamental question: even with the establishment of networked learning environments, does adherence to a rigid approach to facilitating learning prevent students from growing as autonomous learners? Some researchers already seem to think this is the case (Hurd et al, 2001; Sasser, 2012).

An important next step in refining the pedagogical design for the next iteration was to consider an alternate theoretical framework for addressing the challenges. One such framework is the rhizomatic approach. The basic idea of this approach as posited by Deleuze and Guatarri (1987) is to view connected learning as essentially non-linear and unstructured. A 2004 study by Lian exploring the suitability of a rhizomatic approach for technology-enhanced language learning summed up the strength of the rhizomatic approach in this way: “The strength of the system lies not only in each of its parts, but particularly in the high level of connectivity between its parts” (Lian, 2004, p.1). “In a learning structure, it means that learners are able to connect from any activity or information point to any other activity or information point according to perceived need. A rhizomatic structure should not be thought of as chaotic, but rather as a self-regulating structure responsive to the learners’ needs as determined by the mechanisms in place (human or otherwise) for determining such needs” (Lian, 2004, p.5). This chapter will conclude by considering the rhizomatic approach as an important theoretical framework that could provide a practical solution to the challenges faced in this case study.

CASE STUDY

Course Description

Summary Description of the Course

We will examine the case study of an online course in an undergraduate Spanish language curriculum. Fourteen students of varying language competencies attended this course, most of them Spanish majors or minors. The Foreign Languages and Cultures Department piloted this course in the fall 2014 semester as a pioneering attempt at the University to integrate multiple cloud technology tools for language learning. The course used Blackboard, the standard Learning Management System (LMS) at the institution mainly for the administrative purpose of information dissemination. The LMS was the place where students could view weekly announcements (which were also sent to students by e-mail), find modules and grammar units, and also see their grades in the Gradebook function. Keeping the Blackboard LMS as the central core, several activities using cloud technology tools were built around it.

Course Objectives

The title of the course was Advanced Grammar and Culture through Social Media. Here is a short description of the three main learning objectives (L.O): L.O. #1: The student will achieve a higher level of proficiency in Spanish by reviewing advanced grammar topics, which will be practiced via social media. L.O. #2: The student will identify some key concepts related to digital citizenship, such as digital footprint, content curation, privacy, and ethics, and will develop their own personal learning network to be used to augment their knowledge of the culture and language of the Spanish-speaking world. L.O. #3: The student will learn how to create a blog where he/she will be able to reflect on both the advanced grammar as well as the social and cultural aspects learned throughout the course. These explicit learning objectives are tied to the implicit objective of autonomy, which will be part of the discussion in this chapter.

As a final project for the course, each student had to create a Personal Learning Network (PLN) to strengthen Spanish language competency and foster learner autonomy within a learning community. During the semester and leading up to the final project, students were required to use several cloud technology tools, among them Google Apps (including Google+ communities, Slides and Hangouts), Blogger, Tackk, and Instagram. Each student had to create the final project (PLN) using these and other cloud technology tools, thus taking on the role of co-creator, contributor, and negotiator of learning. Each student had to come up with their own process for developing a customized PLN, and apply this PLN for enhancing their Spanish language competency.

Student Profile

The students attending the course were a very heterogeneous group in many respects: their ages ranged from 19 to 65 (two were older female students); half were commuters and half lived on campus; three were native speakers of Spanish who were Spanish majors; most had not taken an online course before; and most were not particularly comfortable or competent with cloud technology tools. For example, one of them did not have a smartphone (although she bought an iPad in the middle of the semester to complete some of the tasks), and at least half of the class had never taken a screenshot before.

Macro and Micro Levels of the Course

At the macro level, the pedagogical design for the entire course will be summarized to highlight the many variables of networked learning. At the micro level, a single activity, namely that of teaching the subjunctive, will be discussed as a subset of the larger complex pedagogical design.

Macro Level: Connected Tools Used in the Course

In this section, the focus will be the pedagogical design of the course, including the creation of connected learning spaces. It will show how these spaces are relevant to the use of cloud technology tools throughout the course.

Because this course was about learning through social media, with the ultimate goal of having students create their own PLN, it was imperative for the design of the course itself to contain networked elements. Although there was conceptually a potential for networked learning within Blackboard, it was very limited in scope and structurally inadequate for the academic vision envisaged by the instructor.

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As an LMS, Blackboard is in fact not an ideal place for cloud-based networked learning. As Velestianos et al. (2013) pointed out in their review of the literature, “LMS have been described as tools that fail to provide users with the individual social presence necessary for more robust and valuable networking experiences that are essential for learning” (p. 257). Indeed, we found it advisable to follow Dalsgaard’s schema. According to Dalsgaard, “a student-centered approach to e-learning is approached by: 1) using a management system for administrative issues, 2) offering students personal tools for construction, presentation, reflection, collaboration, etc., 3) facilitating networks between students within the same course, and 4) facilitating networks between students and other people working within the field.” Blackboard therefore complied with the University’s standards by serving as the core platform for administrative communications only. Several cloud technology tools were then integrated and linked to Blackboard to build a more robust networked framework. With this in mind, the following tools were incorporated into this class in addition to the LMS, which was used mainly for administrative issues as described above.

The integration of several social media networks such as Google+ community, Google Hangout, and Instagram provided an outer circle for enriching digital interactions. To meet the institution’s course standards, the Blackboard LMS remained the core within which most of the social media networks could be combined. This expanded the horizons for digital discourse in a number of ways – a) it helped to move out of the confines of the Blackboard learning space, allowing access to resources and Spanish language users by building an outer circle of cloud-based Spanish learning resources, b) it connected the students with native speakers of Spanish for language learning, c) it provided alternate networked platforms for building on the power of peer learning, and d) it provided alternate channels of feedback from the instructor to the students.

To create a manageable network design, the instructor selected the tools so that they worked together as a comprehensive toolset for the course activities. It was important that the individual use of these tools did not seem disjointed and the structure and scheduling of each tool had a specific purpose for meeting the course objectives. Although a number of cloud technology tools were used, they intersected meaningfully for specific language learning tasks.

Cloud Technology Tools: For a brief description of how each cloud technology tool - Google + communities, Blogger, Google Hangouts, Instagram, Google Slides, and Tackk was used to meet the course objectives, please see Appendix 1.

In addition to these tools, students could choose any other social networking site to find examples for completing their assignments. Students stated that they used Facebook, Twitter, Pinterest, YouTube, Vine, Tumblr, and others. They shared their examples in the Google+ community. They had total flexibility to incorporate some of these tools into their final PLN project. Students mentioned (and showed) that they followed native Spanish speakers and Spanish news (or sports or entertainment) accounts in these social networks, which was not a requirement for the class. Two students even communicated with the instructor via twitter in Spanish. All of this is evidence for the emergence of social autonomy, so crucial to language learning.

Many specific features of the tools that were used lend themselves to networked learning. Students become co-creators by finding the relevant examples and creating a timeline of them for their classmates, contributors by sharing their findings and learning from each other, and negotiators by navigating diverse social media sites to find the relevant examples and clearly presenting them to their classmates.

Table 1 shows when the different tools were used during the semester. It provides a summarized structure for the 16-week course and the sequence in which the different tools were used.

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Table 1. Use of tools during the semester

	LMS	Tackk	Google+ Community	Instagram	Google Hangouts	Blogger	Google Slides
8/25/2014	Required	Required	Required			Required	
9/1/2014	Required	Required	Required			Required	
9/8/2014	Required	Required	Required		Required	Required	
9/15/2014	Required	Required	Required		Required	Required	
9/22/2014	Required	Required	Required		Required	Required	
9/29/2014	Required	Required	Required		Required	Required	Required
10/6/2014	Required	Required	Required		Required	Required	
10/13/2014	Required	Required		Required			
10/20/2014	Required	Required		Required	Required		
10/27/2014	Required	Required		Required	Required		Required
11/3/2014	Required	Required	Required		Required	Required	
11/10/2014	Required	Required	Required		Required	Required	
11/17/2014	Required	Required	Required		Required	Required	
11/24/2014	Required	Required	Required			Optional	
12/1/2014	Required	Required	Required		Required	Optional	
12/8/2014	Required	Required	Required	Optional		Required	Optional

Micro Level: The Teaching of the Subjunctive

In order to see how these interactions worked on a daily basis, we decided to explore how one particular activity, namely the review of the subjunctive tense, took place and impacted the development of learner autonomy. This was part of Learning Objective #1 (The student will achieve a higher level of proficiency in Spanish by reviewing advanced grammar topics, which will be practiced via social media).

During the course of the semester, three weeks were allotted to studying the proper usage of the subjunctive. Beginning with the forms themselves, the review of the subjunctive then moved to normal use in three grammatical contexts: noun clauses, adjectival clauses, and adverbial clauses. Most of the students had already studied the subjunctive in previous courses, since the topic is usually introduced at the end of first-year Spanish, and then covered again at the intermediate level and in more advanced levels. The only students who were unaware of the subjunctive were the three native speakers. Thus the review was useful for them as well, since they could recognize correct or incorrect use of the subjunctive but did not know the underlying principles. The goal was for students to remember (or learn) what the subjunctive was and be able to recognize it when they saw it produced by native speakers in different social media outlets.

Because the subjunctive is used often in Spanish but only rarely in English, it can be difficult to grasp fully. Many advanced speakers of the language still make mistakes when trying to produce it. To achieve the aforementioned goal, the following steps had to be considered when designing the activity:

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Step 1 - Comprehend the Concept: The online textbook used during the full course was a website, Spanish Grammar Online, created by Dr. Enrique Yepes from the University of Bowdoin. This book/website was chosen because it contains very clear explanations in English and also has many exercises that can be completed online. Some of the exercises had to be submitted for a grade, but most of them were not required. Instead, students could complete them, take a screenshot of their results, and send them to the instructor as extra credit. Approximately 30% of the students took advantage of this option. Reading the book entries about the subjunctive was a required first step for every student. The instructor did not provide any formal instruction. Thus this was designed as an autonomous exercise to comprehend the subjunctive.

Step 2 - Recognize the Subjunctive: Once the students completed the first step, they then had to apply their learning of the subjunctive by identifying correct examples from actual social media posts, and demonstrate their understanding by posting materials from global online resources. The students were required to perform the following tasks: (1) find an example of subjunctive use in social media, (2) post a link to the example and an image (if Google+ does not create the image), (3) add specific information about the example, e.g. number of the grammar section in the online textbook, explanation of what the example shows (e.g.: subjunctive in noun clause). In theory, students would also validate their learning through interactions with peers. Interactions between students did not occur naturally, however, so the instructor chose to make two comments mandatory. This intervention was intended to increase interactional discourse.

Step 3 - Apply the Subjunctive in the Students' Own Usage: The third step was to incorporate the subjunctive into their own writing when creating their blog posts on Blogger. To receive the highest grade for their posts, students had to send a draft to the instructor and mark clearly which sentences included the subjunctive, so that they could be reviewed before posting to the public. This was an optional step (to be done only if the student wanted an "A" for their blog post), only some 10% of the students chose to perform this task. More than half the students did not incorporate the studied grammatical items into their blogs.

Step 4 – Provide Learning Support through Effective Scaffolding: Support for learning the subjunctive was provided through the Google Hangout sessions. These served as virtual office hours for students who wanted to seek clarifications. Students were required to participate in at least two sessions during the course of the semester. Ninety percent of the students utilized this resource, many more often than the requirement, and reported it to be very useful.

RESULTS

Data Collection and Methodology

Data was primarily obtained from three sources: (1) an online survey, conducted after the mid-term point in the semester and completed by eighty percent of students; (2) focus groups interviews led by a research assistant, with forty percent participation; (3) student posts in the Google+ community over a period of three weeks, which were analyzed in detail to ascertain the level of student engagement. See Appendix 2 for the survey questions, Appendix 3 for a complete summary of the answers to the focus group questions, and Appendix 4 for information on how levels of engagement were established.

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The online survey and the focus group interviews were centered on three main issues: (1) access - technical difficulties, hardware or software issues, lack of knowledge about a tool; (2) participation - students' willingness to interact with others, opinions about the Google+ community and other tools in terms of ease of use or usefulness; (3) deep learning – demonstration of Spanish language acquisition based on coursework, etc. Analyzing the students' posts also provided information on student engagement in one specific task within a limited period.

This triangulation of data from the survey, focus group, and evidence of participation in the cloud-based learning spaces permitted observation both at the macro level of the course and at the micro level of learning the subjunctive. It allowed the authors to examine the students' perceptions regarding access, participation and deep learning, as well as the level of student engagement in the course. The following section will present these two levels in more detail.

The first part of the results will focus on presenting which aspects of the pedagogical design worked in promoting autonomy for each of the three learning objectives. This will be followed by a summary of several challenges found in pedagogical design when integrating the cloud technology tools for Spanish language learning.

The summary of results provided below are divided into two sections: 1) results for the entire course are described under the Macro level results, with a focus on accomplishment of the three learning objectives, 2) results specific to the teaching activity of the subjunctive are covered under the Micro level results.

Macro Level Results: Learning Objectives

Learning Objective #1: The student will achieve a higher level of proficiency in Spanish by reviewing advanced grammar topics, which will be practiced via social media.

Several elements relating to access contributed to the emergence of autonomy in the activities for this learning objective. The level of comfort with the use of cloud technology tools and the ease of dialogic discourse in the grammar activities was high enough for two students to express preference for collaboration and communication within the class group through Google+ rather than Blackboard. One student described his ability to make meaning when he wrote that the grammar activities were “easier to understand when you can see it and manipulate on your own than just learning it from someone who lectures.” Student survey results indicated that they valued the human element in the interactions, emphasizing their appreciation of “learning from real people” and “sharing the grammar learning with each other.” They added that “learning from real Spanish language examples on the social media” validated their understanding of the Spanish language grammar concepts. Deep learning was conveyed by students in statements that affirmed their awareness of how they were learning. One student highlighted that the Instagram activity (in which students posted daily pictures accompanied by a sentence using the aspect of grammar being studied) helped her think about Spanish actively every day. Thus the Instagram-based task was an effective practice tool for strengthening her knowledge of Spanish grammar. The instructor had suggested Duolingo, an online program for practicing Spanish grammar, as an optional open educational resource for the students. Because Duolingo was not compulsory, only thirty percent of the students in the class used it as a resource for their learning. One student, however, showed autonomy by using Duolingo to consult with external users (i.e. who were not in his class) to check his translation homework before submitting it to the instructor. This proactive approach of reaching out to an open

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resource within the networked environment outside the classroom showed that students were negotiating their own paths of learning within the digitally networked classroom.

Figure 1 shows a student posting an example of the use of the subjunctive after the word “quizá” (maybe). A mini-conversation develops when the instructor mentions that the image comes from a famous Spanish online store. Another student responds that she has visited the site, using the phrase “acabo de visitar” (I just visited the website), which contains another one of the grammatical structures reviewed in the course. A second student also comments on the use of the subjunctive as well as the quote itself.

Learning Objective #2: The student will identify some key concepts related to digital citizenship, such as digital footprint, content curation, privacy and ethics and will develop their own personal learning network to be used to augment their knowledge of the culture and language of the Spanish speaking world.

With the exception of one student, who opted out of the course (at the beginning of the semester) because of challenges with technological access, students did not exhibit any resistance to the use of cloud technology tools. This is an important factor, given that the course was completely online and participation in Google+, Blogger and Instagram assignments formed a primary part of the course. At least three students stated that they occasionally felt overwhelmed having to participate across different cloud technology tools. By the end of the semester, however, they had become more comfortable with the technology. Two students who were in their sixties took the initiative to meet with the instructor on campus to gain the necessary proficiency with cloud technology tools. This was a powerful example of

Figure 1. Student showing an example of the subjunctive from an image in Pinterest



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taking charge of one's own learning, especially since these were not regular students enrolled for the entire undergrad program. At the end of the semester, these students explicitly shared their enthusiasm at being able to continue using Google+ community and Instagram even after the end of the course.

Students learned to participate multi-modally in order to develop their sense of autonomy. For example, several features of Google+ provided a variety of participation opportunities: Google Hangouts allowed for face-to-face interactions with the instructor, while the Google+ community was used for specific collaboration tasks. Instagram was seen as beneficial by students for "forcing [them] to participate." The simple Instagram task requiring students to post appropriate pictures to demonstrate their knowledge of Spanish was quoted as "enjoyable." In using the Google+ community, students had to find effective ways to manage their discourse and provide quality feedback to peers. With almost no prompting, students chose to use the "+1" feature to validate the learning summarized in a peer's post. As one student wrote, "the course was overall enjoyable and helped me to learn not just as student but as a person."

This distinction of seeing oneself as a person who is a lifelong learner, as opposed to a student within a limited, semester-bound context, was an important factor in the development of learner autonomy. Students also indicated that on their own initiative, they "followed" some of these native speakers or Spanish language news accounts to augment their learning. Another characteristic of learner autonomy was brought out through students' awareness of a deep learning approach. Students seemed to be cognizant of "learning how to learn" by combining their participation in the different cloud technology tools to shape their language learning process. Many students commented that the search for examples in real-life feeds (from other social media sites such as Twitter or Pinterest, which were not part of their regular coursework) taught them about digital citizenship in Spanish-speaking countries and in their own lives.

More than half of the students in the class also said they were highly motivated to continue using these social media tools for their learning much beyond the scope of this course. In addition to tools such as Twitter or YouTube used in the class, one student added many more, including Skype, Viber, WhatsApp, and Snapchat. For this student, the purpose of using several tools was to communicate directly with her Spanish-speaking friends from other countries.

Learning Objective #3: The student will learn how to create a blog where he/she will be able to reflect on both the advanced grammar as well as the social and cultural aspects learned throughout the course.

All of the students were able to use the Google Blogger platform to create their own blog for posting their assignments. According to the student survey results, student stated that there were few issues with access. Students also stated in the online survey that the level of technology skills required was not too high. The opportunity to navigate through the different cloud technology tools helped each student to arrive at his/her own individual preferences. For example, one student thought that the use of Instagram was more effective in grasping the grammar concept than the way in which the learning activity was designed within Google+. The blog served the dual purpose of summarizing the students' learning experiences in the cloud environment and demonstrating their understanding of the grammar concepts, since they had to write entirely in Spanish. Students used their learning of Google Slides (which they were required to embed into their blogs for one assignment) in this course to work with students in another course who had not used Google Slides before. Their ability to transfer knowledge and technological skillset was clearly illustrated in the sociocultural context of learning Spanish. One representative student comment was that "I have learned about the uses of social media in many different countries from Google+ and our blogs." Because of her interactions in social media, one student could distinguish between Spanish

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in the classroom and Spanish used by native speakers from different Spanish speaking countries. According to the student she was able to make such a critical observation only because of the opportunity to engage in Spanish through Google+ with native speakers outside the U.S and online resources.

Figure 2 shows a sample student blog. Because these are public blogs, the instructor asked that students not use their real names, but instead create a pseudonym, in this case “Ava.” On the right side of the screen, the student incorporated a blog roll of her classmates’ blogs so that she could easily access them when she needed to make comments (a required task in the course). In this particular post, the student has embedded a Google Slide she had created to talk about social networking in Spain (each student had to research one specific Spanish-speaking country).

Micro Level Results: Teaching the Subjunctive

To understand this pedagogical design in greater depth, we will move from the results of student learning at the macro level (observations about the entire course) to the results observed at the micro level of a specific activity. This activity description for teaching the subjunctive has already been completed above. Following is a summary of results from the students’ coursework for the activities related to the teaching of the subjunctive:

Students demonstrated their learning of the subjunctive in different ways Many students were able to find excellent examples of subjunctive use in quotes by native speakers, particularly in Pinterest. One student found a very funny video in Vine with another good example. A few interesting dialogues developed. One conversation in particular was not about the subjunctive, but about a topic in life in general, saying good-bye to loved ones (in Spanish) (see Figure 3). This reflected how the student’s own interest guided her to another learning point outside the subject.

Figure 2. Example of a student’s blog

Ava SP 299

Saturday, October 4, 2014

Las redes sociales en España

El top 10 de España

1. Facebook
2. Youtube
3. Twitter
4. Tuenti
5. Badoo
6. LinkedIn e Instagram
7. Meetic
8. Pinterest
9. Odnoklassniki
10. Flickr

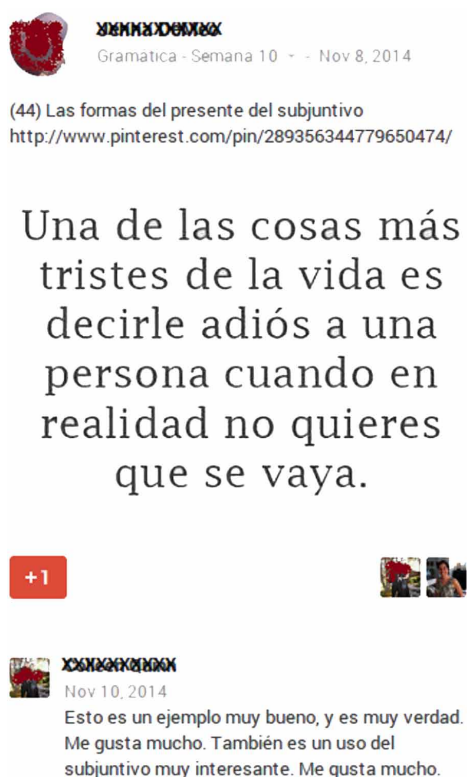
Y otro: Vine

Esta semana he investigado el uso de las redes sociales en España. He aprendido un montón de cosas interesantes. En primer lugar, no me sorprendió encontrar que Facebook es el sitio de las redes sociales más popular en España, con más del 62% de la actividad. Creo que se puede hacer mucho en Facebook, así que tiene sentido que sea el más popular. El promedio de horas que la gente pasa en

Los blogs de la clase

- El Blog de Iván! (Español 299)**
¡Despedida y tengan un buen vacación! - En total, estoy contento con cómo ha mejorado mi español, especialmente con la comunicación en línea. Es porque tengo una amiga desde la escuela primaria...
3 weeks ago
- El mundo social en español**
El conclusion del curso: SP299 - Otoño 2014 El español a través de las redes sociales - Es al final del semestre y también de este curso. Cuando yo pienso del curso, estoy agradecida de que yo me inscribí. Eso fue uno de lo mas interesante cia...
3 weeks ago
- Mi mundo de las Redes Sociales**
Mi Final - Voy a extrañar esto mucho clase. Lo que más me gustó de esta clase de español es que podemos poner en práctica las actividades de cada día de Internet en n...
3 weeks ago
- El Blog de Macchupicchu**
Sobre lo aprendido en el curso online SP 299. El momento SP 299 en la...

Figure 3. Reviewing the subjunctive in Google+ community



This student's example shows good understanding of the subjunctive in noun clauses after “querer que” (to want someone to do something).

To avoid using formal teacher-taught approaches, students had been asked not to use examples from open resource materials created by Spanish teachers. Instead, the instructor had recommended that that students show how the subjunctive is used by native speakers in informal interactions. Going against this advice, a few students kept choosing examples produced by teachers. In one instance, the student chose a YouTube video with specific rules on how to use the subjunctive in adjectival clauses. The instructor commented that she found it boring, but two of the students (in addition to the student who created the post) commented on how useful they found it. The instructor felt that her rule of not using teachers' materials had been then “broken” correctly, as students seemed to learn more from that video than from an example of native speaker use (unanticipated learning). The unanticipated learning for the instructor was that students were able to choose their preferred method to meet their learning objective.

Challenges for Pedagogical Design

Macro Level Issues

The purpose of creating a Personal Learning Network as the final project was to strengthen Spanish language competency and foster learner autonomy within a learning community. Students were required to use cloud technology tools such as Google+ communities, Google Hangouts, Tackk, and Instagram.

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Each student had a unique process for developing a customized PLN, and was expected to autonomously enhance his/her Spanish language competency. In her reflection process at the end of the semester, the teacher practitioner identified several issues in the pedagogical design that she intends to resolve for the next run of this course:

- The way in which the learning design combined different cloud technology tools was quite complex. The need to handle multiple cloud technology tools within an online course was overwhelming for the students at the beginning of the course. There was a steep learning curve in the beginning, although an improved level of comfort led to ease of use before mid-semester.
- The week-by-week structure was rigid, requiring students to work in sequence with a particular cloud technology tool for a limited amount of time. For example, the self-study grammar activity from Week 2 to Week 4 required follow-up posts in Instagram only up to Week 5. This structured linear pedagogical design actually proved detrimental to the free flow of dialogue and participation across the different learning spaces.
- Discourse management and the feedback system across the learning spaces seemed constricted because interactional dialogues took place only within the learning space assigned for that activity. Creating overall connectivity between learning spaces was a huge challenge.
- The means for assessing results was not robust enough to measure deep learning: The setup of a digitally networked classroom did not easily accommodate unanticipated learning, particularly when strict time deadlines were necessary to maintain the flow of the course. There were also strict rules for grading, such as “post two examples and two comments,” which may actually limit and curtail student participation and make connections more superficial (e.g.: “I comment because I have to”).
- Although several points of interaction occurred between students and their peers, the instructor, and native speakers outside the boundaries of the course, it was difficult to know whether these were superficial connection points or whether in these cases participation through the connection led to deep learning.

Micro Level Issues

Although 80% of the students were able to understand the subjunctive and to apply their knowledge in their writing, the instructor faced many challenges in promoting autonomy. One student was unable to post due to technical difficulties during the three weeks and the instructor had to provide an individual task replacement. When problems in participation occurred, they were often related to learner motivation. None of the students added more than the two required posts or the two required comments to other students' post. Several students posted at the last minute, just before the deadline and thus not allowing time for other students to comment on their posts.

On some occasions, students posted incorrect examples. Although the instructor did provide feedback about incorrect posts, some students did not acknowledge these comments, leaving the instructor to infer there had been no follow-through. Thus, even though the classic process of the initiation from the instructor, response from the student, and feedback from the instructor did occur, this initiation-response-feedback loop becomes meaningful only when it goes through several iterations and learning is reinforced. In this case, the single iteration of the initiation-response-feedback loop did not progress further to build continuity and died prematurely, whereas it could have been extended further to strengthen Spanish learning.

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In Figure 4, the student chose a good example (a video of a song with many instances of the subjunctive) and the instructor validated it. Another student asked a specific question, i.e. “what is the name of the song?” but the first student did not respond to either of the two comments.

Figure 5 shows how a student used an incorrect tense/mood (“tengo” = I have), and the instructor then modeled the correct usage of the subjunctive without explicitly correcting her sentence in the following exchange (“tuviera” = I had). Whether the student picked up on this correction is unknown, but there were several layers of interaction rather than just a single response. Even though the responses are short, they kept the conversation alive by acknowledging the instructor’s comment.

Figure 4. Example of feedback loop dying after minimal interaction

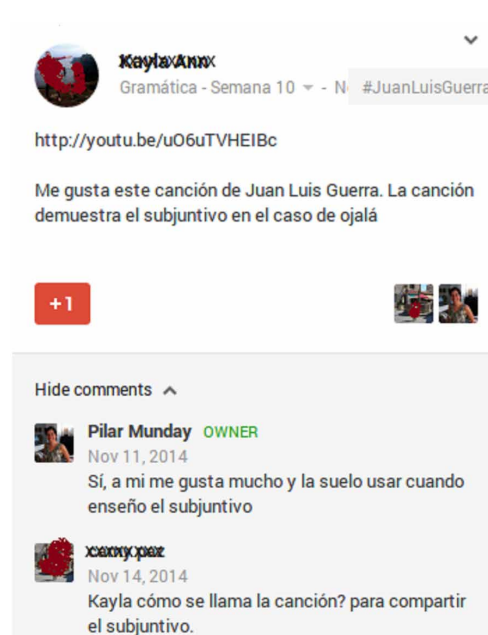
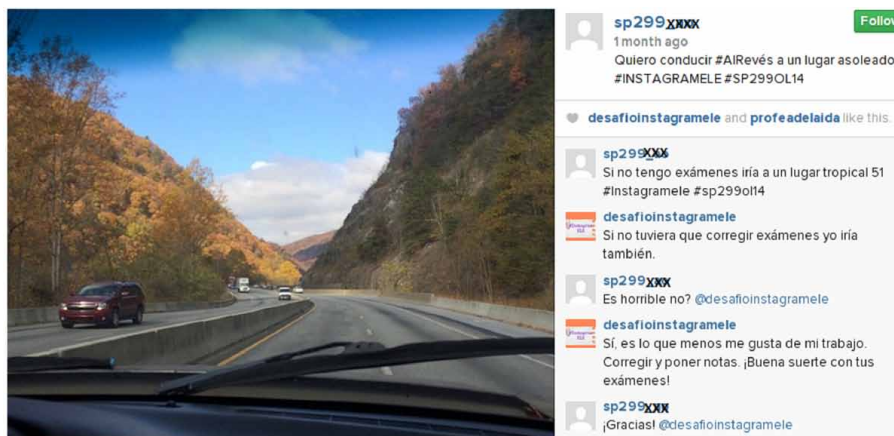


Figure 5. Example of dialog on Instagram



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After analyzing in detail the posts made by students in the Google Plus Community (see Appendix 4 for information on how we did this), the results about engagement by the students in these fora are shown in Tables 2 and 3.

Almost 30% of participants were highly engaged, about 30% were moderately engaged and around 40% were poorly engaged (see Table 3).

We observed a high degree of variability at the student level. For the two cases of complete zeros, one was a student who could not post for medical reason during the three weeks, and another was a sixty-year old student who was having problems with access and was therefore given an alternative task. Besides these two, only three students were consistent over the period of the three weeks, one at the highest level, the second at the moderate level, and lastly one at the poorly engaged level.

DISCUSSION

The results presented in the previous section from the pilot study can be broadly categorized under four main challenges.

Challenge #1: Given the high variability among learners, how can the instructor create a design that can benefit all learners?

Table 2. Engagement at the classroom level during the three weeks of the subjunctive activity- by total number of posts for that week

Week 10	Week 11	Week 12
13	15	14
13	11	12
11	10.5	10
10	7	8
7.5	7	7
7	7	7
5.5	6.5	7
5	5.5	6
4	4	4
4	1	3
3	0	2
2	0	0
0	0	0
0	0	0

Scale:

15 - 9: Highly engaged
 8 - 5: Moderately engaged
 4 - 0: Poorly engaged

Table 3. Engagement at the individual student level

	Week 10	Week 11	Week 12
Student 1	13	7	10
Student 2	13	11	12
Student 3	5.5	7	7
Student 4	4	4	3
Student 5	4	6.5	8
Student 6	0	0	0
Student 7	10	7	6
Student 8	0	0	0
Student 9	7.5	5.5	4
Student 10	11	0	14
Student 11	3	10.5	2
Student 12	5	1	0
Student 13	2	15	7
Student 14	7	0	7

Scale:

15 - 9: Highly engaged
 8 - 5: Moderately engaged
 4 - 0: Poorly engaged

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An analysis of learner responses in the activity involving the subjunctive revealed high variability among learners, as seen from the data on the level of engagement. Such variability is not uncommon in a higher-ed classroom. The challenge for the teacher practitioner in handling this variability is further compounded by the context of applying cloud technology tools, where student response could vary based upon access and participation.

The final project, which required the creation of a PLN, is a case in point. In the task-based activities during the course, students were exposed to at least five cloud technology tools: Google+ community, Google Hangout, Instagram, Blogger, and Tackk. In addition, students also integrated other social media tools on their own initiative, such as Pinterest, Twitter, Tumblr, Vine, etc., to find grammar examples. They could show their learning of grammar and other topics covered during the course by choosing a subset from this master list of tools and combining tools in any order. To provide evidence of understanding the subjunctive, for example, students posted items from a variety of social media sites - Instagram, Tackk, and Google+. They could extend their learning to a tool that was not required, such as Twitter. In this way, each student learned step by step to create a unique PLN. Creating a PLN in this way gave each student the opportunity to pursue multiple paths of learning, thus acknowledging that each student was a unique learner in tailoring their process for the emergence of autonomy.

On paper, this seemed to suggest that each student could trace his or her own individualized path of learning, moving in different directions. Nevertheless, the rigid framework of the 16-week semester and the common goal to be achieved at the end of the course seem to totally ignore the variability among learners. Essentially, everyone was expected to get to the final point within the given parameters. Even though students start at different points, all students are expected to end at the common point of a learning network. In this case study, for example, one student sent an email to the instructor the week before the final project was due, expressing concern because she still did not know what a PLN was and how she could create one. On the other end of the spectrum, another student demonstrated the PLN she had already created using a web tool called Symbaloo, which had not even been mentioned in the course. Symbaloo allows the user to create all the tools of a PLN in a single screen, effectively displaying the learning from the PLN.

Challenge #2: How can learning spaces be designed within a networked learning environment in a way that fosters learner autonomy?

When the traditional classroom becomes a digitally networked classroom, the learning scenario takes on a greater complexity due to the web of possibilities now available to the learner. The emphasis may shift away from the centrality of classroom interactions to an open, learning-by-discovery mode.

It may be necessary to examine whether the move from the tradition LMS to Google+ communities was, in fact, an enhancement of the design. It could be said that the change was a move from a closed space (Blackboard) to another closed space, since the Google+ community for this class was set up as a private space. This nevertheless appears to be a step in the right direction, for the following reasons: limitations in the Blackboard application force interactions to remain rigidly structured, while Google+ communities allowed for richer interactions and easier flow. As also mentioned earlier (see Appendix 1), Google+ communities situate learning inside a true social network, and several students took this opportunity to practice Spanish by following native speakers or news sites on the larger Google+ network. In addition, although the community was private and can be erased by the instructor, in theory it is still available to students once the semester ends. All of the resources that were posted there are available to

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the community of learners. The same can be said of Blogger, which allowed students to create a portfolio or diary of their learning that can be accessed at any point in the future. In this case, student has 100% ownership. Finally, many students suggested in their comments that they took advantage of the mobile capabilities of Google+, such as push notifications that alerted them when other students posted, or the ability to post directly from the phone. Although Blackboard has a phone app, it does not function as well as the Google+ app.

If the digitally networked classroom is to be effective, the pedagogical design must be further enhanced. There is no certainty that use of the Google+ community or Blogger created an optimal environment for the emergence of autonomy, since there are only limited examples of students reaching out beyond the class community, and none of the students commented more than the required two times on either Google+ posts or other blogs. In addition, the sheer number of cloud technologies used in this case also proved to be a hindrance for the students in general, particularly at the beginning. Many mentioned that it was a complicated structure to navigate. Such a situation can lead to frustration rather than the intended goal of fostering learner autonomy.

The students' lack of comfort level with cloud technology tools could also be an obstacle to the pedagogical design. Some students expressed frustration when they were asked to embed their Google Slides presentation into their blogs, for example. For the students, issues of comfort level stemmed from privacy and visibility concerns. Although many of the activities were conducted in the private space provided by the Google+ community, some were completely open, such as the Instagram challenge, which was mandatory for three weeks. One student in particular expressed that he was not "comfortable" with Instagram, both the tool itself and the idea of posting public pictures and getting comments from strangers. He decided not to do it, and thus received a zero for the assignment. He did not communicate his feelings to the instructor. This was discovered later when reviewing the answers to the survey. Research has already shown that students are often more comfortable when they are able to post anonymously (Roberts, 2013).

All of the students who signed up for the course had willingly signed up for learning in the online environment, but the requirement to engage with cloud technology tools and build a PLN was unique to this instructor's teaching practice. Understandably, some students showed resistance to engaging in digital activities that demanded more than just minimal interactions via the Blackboard discussion board.

One practical strategy that could have been implemented is an informal periodic check-in with students throughout the course to ascertain their comfort level in handling the cloud technology tools. Responses concerning comfort level could be collected through anonymous posts. The virtual office hours provided by the Google Hangout sessions did help in dealing with affect-related issues such as anxiety concerning the technology skills needed for posting on Google+ or writing a comment on Tackk. Another possible strategy is to allow anonymous posts within the cloud-based activities, and then merely observe how community-building emerges. This would necessitate a high degree of trust and creativity on the part of the instructor when assessing learning.

Challenge #3: How can digital discourse be fostered in a manner that leads to community building?

The extent to which the benefits of digital connectedness led to deep learning and strengthening of Spanish language is difficult to measure. If networked learning is seen as "learning in which information and communications technology is used to promote connections: between one learner and other learners; between learners and tutors; between a learning community and its learning resources" (Goodyear

et al., p. 1), then several points of connection did happen between peers, between the students and open resources, and the student and the instructor. A community of learners was definitely established. This is evident from the many incidental points of connection between the students and peers, and between students and external expert resources. These points of connection failed to form a meaningful learning community. Several points of connection within the Google+ community, Blogger and Instagram appeared to be at the surface level. Evidence of learning was visible, but reciprocity in interactions was lacking. The initiation-response-feedback loops went up only to one or two levels, and didn't complete loops of communication, or link forward to the next loop. Points of connectedness were often lost and community building seemed weak.

One pedagogical challenge that all teacher-practitioners are eager to solve is that of creating an optimal cloud-based learning space in which the students are eager to participate. This is a fundamental question of learner motivation. In the subjunctive activity on Google+, students had to choose pictures depicting the subjunctive. When the instructor observed poor participation in this specific activity, she intervened and required two responses to peer posts. The authors observed that although 60% of the students completed the required two posts, not a single student went beyond that. In an ideal environment, true engagement would happen because students would want to participate, as opposed to being required to participate.

One practical strategy might be to present a master database of possibilities and allow students to trace their own learning pathways for reaching the goal that they have chosen. Students could also be encouraged to define their goals for Spanish learning at the beginning of the course. This might motivate the group of students to work as a community, empowering each other to accomplish their goals. The teacher would be available as a facilitator, but the prompts would be triggered by the community of learners. This would address a fundamental issue of learner motivation. Knowles' andragogical principles of learning have clearly identified setting one's own goals and taking initiative as key to developing as self-directed learners (Knowles, 1975).

Challenge #4: How to bring about a paradigm shift in the role of the teacher that will more effectively facilitate learning in the digitally networked classroom? How to arrive at a balance between providing guided structure and allowing the freedom that promotes learner autonomy?

The academic domain of Language Acquisition has been at the forefront in the study of learner autonomy since the 1980s. According to Little (2003), "the process of 'autonomization' has been strongly influenced by neo-Vygotskian psychology, which sees learning as a matter of supported performance and emphasizes the interdependence of the cognitive and social-interactive dimensions of the learning process."

Within the context of a highly structured course, the instructor's role could be authoritarian in controlling the flow of dialog. Thus, in spite of the desire to promote autonomy, the instructor might be doing a disservice by acting in opposition to this very intention. One of the ways in which the course design might be disempowering students is by expecting them to demonstrate learning in a very specific way, while failing to account for unpredictable paths that students might take based upon their own motivations.

When facilitation within a networked environment continues to use traditional approaches to define, observe, and assess participation, it constitutes a serious obstacle to learner motivation. This case study raises the important question: given that here is a need for guiding learners and also providing freedom in networked interactions to create an optimal space for the development of autonomy, how can the

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pedagogical design strike the right balance in skillfully combining guidance and freedom? The next section attempts to answer this question by considering the rhizomatic approach as a possible model for digitally networked classrooms.

CONSIDERATIONS OF THE RHIZOMATIC MODEL AS AN IDEAL APPROACH FOR THE DEVELOPMENT OF LEARNER AUTONOMY

Why the Need to Consider the Rhizomatic Approach to Learning?

The results from our case study revealed several limitations for the teacher practitioner designing the learning spaces for an optimal networked learning experience. This points out the importance of learning from existing models of networked learning that could be more effective in promoting autonomy.

The Rhizomatic approach originally proposed by Deleuze and Guattari in 1987 is a preferred model since it is built on the basic premise that learning is naturally non-hierarchical, non-linear, unpredictable, and thrives in a networked system. The idea of the rhizome, a visual metaphor to explain a way of thinking, was constructed in their *Capitalism and Schizophrenia* project. Winn and Lockwood (2013, p. 221) summarize the rhizomatic pedagogy succinctly: “the rhizome - a flat, horizontal root system – suggests the immanent, transformative connectedness of the world and constitutes a corrective to an arborescent logic of stand-alone ‘trees’. The rhizome privileges the connecting line rather than the isolated point. It is an endlessly proliferating assemblage of lines which connect from the middle. Connectivity without center, boundaries, beginning or end, is the first principle of the rhizome.”

Cormier, who is currently experimenting with rhizomatic applications in online courses, interprets Deleuze and Guattari’s idea of a rhizome as “a creeping rootstalk, ... a stem of a plant that sends out roots and shoots as it spreads.” Within a rhizomatic framework, “ideas are multiple, interconnected, and self-replicating.” In applying this model to an online MOOC course, he sees it as akin to any learning process with no clear identifiable beginning or end. (Cormier, 2011). Cormier emphasizes that learning in such a space is essentially non-linear and grows in an unstructured, haphazard manner. “As a story for learning, it is messy, unstable and uncertain. ... As with the rhizome, the rhizomatic learning experience is multiple, [and] has no set beginning or end, – “a rhizome creates through the act of experimentation” (Cormier, 2012). The Lincoln school of media in the U.K experimenting with the rhizomatic approach as a pedagogical model have built on Cormier’s work on looking at the community as a curriculum (Coley et al., 2012).

This philosophical construct is significant as a knowledge model because it factors in ways of learning that the formal education system does not even begin to consider – that students pursue unexpected haphazard paths in a digital networked classroom to reach their learning goals, that unanticipated instances of learning by discovery is a valid form of learning. This Rhizomatic approach, in which the learner chooses to join a learning network at any point, participate in the learning based upon the learner’s own intentions, and figure out when to leave or revisit the network, is strongly attuned to promoting autonomy. In recent years, it has taken on greater relevance for digital networked learning. With the advent of cloud technology tools, there is an urgent need to expand learning spaces beyond the standardized and closed environment of the institutional LMS. As Groom and Lamb (2014) recently mentioned “every hour spent online inside an LMS is one in which students are not engaging the wider web in a spirit of critical inquiry.

They are in a system; they are being managed.” What sets the rhizomatic model apart from the rest of the well-established education principles is that it does not ignore these important aspects of learning.

Characteristics of the Rhizomatic Learning Model: Enabling an Intuitive Heuristic

This section links the basic tenets of a rhizomatic approach as outlined above to the case study of the Spanish language course described in section 2. When designing the networked learning space for the Spanish language course using the several cloud-based tools, there was no clear objective to apply the rhizomatic model. Post-hoc observations, however, show that several elements in the design of the cloud-based networking space in the case study reflect characteristics of the rhizomatic approach to learning.

Mackiness (2014) has culled six key characteristics from Deleuze and Guatari’s work. These six characteristics serve as concrete learning traits to denote “connected learning”. The characteristics are: connections, heterogeneity, multiplicity, asignifying rupture, cartography, and decalcomania. Mackiness presents these six characteristics against the background of a test case of an online course called Rhizo14 that applied these rhizomatic principles.

In Table 4, Mackiness’ description of each characteristic is presented with a concrete example of how this characteristic was demonstrated within the present case study.

One student in the class created a PLN by curating many different resources in a single space using the tool called Symbaloo. It contained social networking links (Facebook, Twitter, Pinterest, etc.), language learning links (Duolingo, WordReference), and other multicultural links, like one for Barcelona Soccer, Univision TV channel, music in Spanish (Pandora) and also the course communications via the Blackboard LMS and her e-mail. This exemplified a rhizomatic approach by this student to build connections for strengthening Spanish across the different cloud technology tools.

Table 4. Rhizomatic characteristics in this case study

Rhizomatic characteristic	Description by Mackiness, based on the original work of Deleuze and Guatari	Example of learning observed in our case study
Connections	“a rhizome ceaselessly establishes connections”	Students had options to go to different social networking sites. They also could use Google Hangouts to clarify learning issues and connect with peers. They made connections in Instagram and Duolingo.
Heterogeneity	“any point of a rhizome can be connected to any other point”	The course provided the students with a master plan of cloud-based tools, of which each student could use a subset in combination to arrive at an individualized PLN.
Multiplicity	“a complex structure that does not reference a prior unity”	Students could strengthen their Spanish by tracing any of the multiple pathways available to them.
Asignifying rupture	“connections are constantly breaking (de-territorialization) and reforming(re-territorialization).”	Although not “constantly” students chose to participate in certain networks (like Instagram or Duolingo) of their own accord, deciding when to join the network and when to pull away.
Cartography and decalcomania	“like a map, not a tracing”	In their final projects, the creation of a PLN, students were asked to show a map of connections. We have mentioned how one student even found a platform, Symbaloo, to host all the elements of her learning map together.

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Although this case study demonstrates an attempt to apply rhizomatic principles, it was very limited in its impact for fostering learner autonomy.

The primary focus of this case study is the teacher practitioner's role in creating an effective pedagogical design. So, the important question is: What is the role of the teacher-practitioner when implementing a Rhizomatic approach? One may argue that if the locus of control rests solely with the learner, is there a need for a teacher-facilitator in this networked rhizome? Irrespective of the myriad scenarios for learning available to the student, the locus of control always lies primarily with the student. Teachers still have a vital role to play as facilitators. According to Cormier (2011), the role of teacher-facilitators in this context is to maintain a suitable learning context "within which a conversation can grow." Just as important as teaching is the creation of a suitable learning space, where the learner can grow in multiple non-predetermined, connected pathways. Little (2003), who has been studying learner autonomy in foreign language acquisition since the 1990s, states - "the teacher's role is to create and maintain a learning environment in which learners can be autonomous in order to become more autonomous." Thus the instructor's role is not merely to instruct, but more to create a suitable learning space in which rhizomatic connections between different points can evolve, where discourse can thrive, and where all learning is essentially unpredictable.

CONCLUSION

For more than three decades, the domain of foreign language acquisition has focused on the challenge of promoting learner autonomy. Extending this research to the digitally networked classroom is the logical next step. The design and delivery of pedagogical models can be effective, however, only when the complexity of the learning scenario in a digitally networked classroom is more clearly understood. This case study has highlighted the challenges involved in integrating cloud technology tools by critically analyzing the structure of the activities and participation by students within a digital discourse, and also carefully examining the role of the teacher. Through this analysis, this study raises awareness of the dangers inherent in applying standard pedagogical approaches without adapting them to digitally networked learning environments. It is therefore highly relevant to the scholarly community of foreign language teachers who may be involved in similar innovations and facing comparable challenges. As an alternative theoretical framework, the rhizomatic approach opens up a new avenue for strengthening language learning in networked learning contexts. The rhizomatic pedagogical framework provides a foundation for developing concrete strategies and solutions. This case study presents a comprehensive overview of potentials and pitfalls that need to be considered when using cloud-based applications to foster learner autonomy.

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KEY TERMS AND DEFINITIONS

Cloud Technology Tools: Set of tools, such as any type of software, which is based online via a shared infrastructure. Users access these tools from their devices without having to manage the hardware or software.

Digitally Networked Classroom: A digital environment in which the learner is connected to other learners, the instructor, and open educational resources. The learner uses these connections for the benefit of his/her learning.

Learner Autonomy: Learner takes charge of his/her learning. The demonstration of autonomy is always anchored to a context. The learner is able to show the initiative to problem solve to achieve a specific goal by being less dependent on a teacher.

Pedagogical Design: A set of theoretical constructs, patterns and/or procedures, employed by the teacher practitioner in the learning environment.

Personal Learning Network: A learning network formed by an individual with the objective of connecting with others and open resources for informal learning.

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Rhizomatic Learning: Learning based on the idea of the rhizome, a root which grows according to its environment, in an unstructured and unpredictable manner, with no clear center.

Social Networking Sites: Web based sites which connect people with similar interests. Each user has a space and can connect with other users and see others' connections.

Subjunctive in Spanish: A verbal mood which is used to express states of unreality such as volition or emotion. It usually appears in three grammatical contexts: nominal, adjectival or adverbial subordinate clauses. It is much more widely used in Spanish than in English.

APPENDIX 1

List of Tools Used in this Course

Google+ communities is currently the second-largest social networking site, with more than 340 million users. It was chosen to meet the teaching objectives for various reasons. Because of its global reach, students could already establish connections with a population outside the class. Students could easily post different types of media, such as YouTube videos, Pinterest Pins, Tweets, Facebook post, etc. One important strength in providing feedback was the comment feature. The commenting system was very simple to use and very clear, unlike some of the threaded discussions on a more traditional LMS, where comments can easily get “lost.” In addition, students who have turned on notifications on their phones can know when someone has commented on their posts. Lastly, it includes the +1 symbol, similar to the “like” in Facebook, which can be used by students and instructors to “reward” good postings and/or comments. Thus, students can also see which postings were better at responding to the questions asked.

Blogger is a blogging platform owned by Google. Each student had their own blog, created with the Google owned platform Blogger. This platform was used for the following reasons: It can serve as portfolio of what was learned in class. Students can use it after they finish the course. Students comment on each other’s blogs and learn from each other. Blogs can be shared with the larger community by the instructor or the member themselves. Students could have a blog roll of their classmates’ blogs right inside their blog, so they could easily know when someone posted or they could comment. In addition, because it is a very popular platform, there are already many how to guides and videos, both in English and in Spanish that can be incorporated as resources for students, without the instructor having to create them.

Google Hangouts is a video tool that allows you to have video conversations with up to ten people. There is one modality, Google Hangouts on Air, which can be recorded and shared later through YouTube. During the course of the semester there were eleven Google Hangouts on Air. They were spaced out, having almost one Hangout per week. Any member of Google+ can participate in the Hangouts, which are video sessions organized by one person, in this case the instructor. Each student was required to participate in at least two Hangouts. Only one student did not participate in any, and several students participated in more than two. The Video Hangouts were recorded and later posted in YouTube and shared in the course Google+ Community, as well as in Blackboard. On the Hangouts, the instructor went over the instructions on the Grammar units or the Modules or projects. Students had a chance to ask questions about the course or about assignments, as well as to get to know each other a bit better, as this was the only time they could actually see each other.

Instagram is a social networking site based on pictures. Users post images and other users can like them or make comments. They also use hashtags to group pictures according to themes or location. In order for the students to initiate collaboration with people outside of the classroom learning community, they participated in a challenge using Instagram for three weeks during the semester. There was a prompt for each day of the month, and anybody who wanted to participate took a picture relating to that prompt, wrote a quote for it, and tagged it with the word #InstagramELE. The students were asked to write sentences related to the grammar being studied during those weeks, add the common tag of #InstagramELE, add also a tag for the class, #SP299OL14, and try to interact with people in the larger community by posting comments on other peoples’ pictures and responding to the comments they obtained. This challenge, #InstagramELE is something that exists outside of this course. For more information about, see Martin Bosque & Munday, 2014.

Google Slides is a presentation tool which can be used collaboratively as a shared learning space. It can be easily embedded into blogs. Students used it firstly on their own (shared with the instructor), then for their group project, collaborating with other students, and lastly for the final individual project. This built practice in an incremental fashion to move to the next collaborative group project with peers.

Tackk is a tool that facilitates the creation of webpages that can be customized with multimedia elements such as videos, pictures, polls, etc. It was used primarily to enhance the design and communication within Blackboard, since the pages are easily embeddable into Blackboard and improve the normal look of a Blackboard page. Beyond design, they were also very useful because they have a comment stream at the end of each page. This allowed students to write questions or comments which could be seen by everyone.

APPENDIX 2

Mid-Term Survey Questions

Link to the survey: https://docs.google.com/forms/d/1Tk-Ovh_4AXm07P9KXMtliZjiN226LsPN-Oea9oAoMYI/viewform

1. Access - Please, indicate your agreement with each of the statement below:
[1] Strongly Disagree [2] Disagree [3] Undecided [4] Agree [5] Strongly Agree
 - I am able to complete all the tasks required with the technology I have
 - I am able to complete all the tasks required with the technology I know how to use
2. Do you experience frustration with any technical aspect of the course? Could you give a specific example?
3. Participation - Please, indicate your agreement with each of the statements below:
[1] Strongly Disagree [2] Disagree [3] Undecided [4] Agree [5] Strongly Agree
 - I like to participate in collaborative learning experiences
 - Our Google+ Community is easy to use for collaboration
 - Our Google+ Community is useful for collaboration
4. The intention of using Google+ community was to promote networked learning. Do you have an example of collaborative learning which has taken place during the course so far?
5. Do you think that the tools used in the course so far (Blackboard, Google+, Tackk Boards, Google Hangouts, Instagram, etc.) promote your participation?
6. Could you give two specific examples of your own learning (about Spanish language and culture or other topics) through any of the tools we use?
7. Attitude - Please, indicate your agreement with each of the statement below:
[1] Strongly Disagree [2] Disagree [3] Undecided [4] Agree [5] Strongly Agree
 - Time constraints make it difficult for me to participate often
 - It is hard to maintain a smooth and continuous contact with all members of the group.
 - I prefer to post assignments close to the deadline
 - The tools we use enhance the content of the course
 - The tools we use enhance my own learning.

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8. Have you used any other tool not mentioned here to work or communicate with your peers in this class? Could you let me know which ones and how you used it?
9. Do you have any suggestions to improve the communication in the course?
10. Do you have any other suggestions about the course?

APPENDIX 3

Table 5. Summary of the answers to the focus group questions

	Access	Participation	Attitude	Deep Learning
Google Plus Communities	It was easy to access but felt very overwhelming in the beginning. I felt like it was difficult in the beginning, I don't use Google Plus but I liked it towards the end. I had trouble with the Google slides. Also, I didn't know how to do an embedded post. Google app was very useful. Google plus was 100% better than Blackboard. Easier to use, read and to look at they are more organized. Getting notifications helped me to stay in touch with work and between sessions.	I had a positive experience because everyone participated. The discussion boards were very interesting. Blackboard not as active as Google Plus. I felt there was a lot of participation and Google Plus was very convenient. Google plus has several options that allows many different opportunity to collaborate.	I felt very connected to the students in my group, in fact I felt connected to other students outside of my study group as well. This was my first online course and I felt that everyone was learning on the same level. The professor created a community (within Google Plus) it was easy to find and to look at. I don't know what Google Plus would be used for outside of an academic setting.	Before starting this class I used my computer in the usual way meaning email, doing homework...the basics. But now with all of the tools introduced and used in the course I feel more confident. I did my own research on how to embed a post. I did start using it outside of the class, it came in handy for my micro-economic class. It was a group project that we were all doing a presentation – slideshow kind of thing so we had one common link that we could all work on at the same time. I set up the file and sent everyone the link. I would have never known about it if I hadn't used Google in the course (SP299).
Google Hangouts	My computer wouldn't work but I could view the videos on the app on my phone. I had difficulty with understanding how to record the video.			Based on what I learnt about the google tools in this course, I used it to work on a collaborative project in another course.
Instagram	Loved everything about the class.	I am an outlier because I didn't really do one of the assignments because I'm not really familiar with Instagram. I was not emotionally comfortable with posting pictures on Instagram, I didn't do that particular assignment.	It is easier to send a picture via Instagram than it is to email it.	This has helped in other aspects of my life including my work and family life.

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Table 5. Continued

	Access	Participation	Attitude	Deep Learning
		*Initially when the course started I had a BlackBerry and I couldn't access the social media tools easily. For the sake of this course, I bought a smartphone and really like using the smartphone.		
Twitter	I found people (kids in Spanish speaking countries) speaking in their natural language and how they go about everyday just tweeting.			
Duolingo	2 students mentioned the use of Duolingo in the class.			
Tackk	Not mentioned			
All tools combined for Networked Learning	At the start it was difficult but after getting into the rhythm of the class it became easier. Enjoyed the online format. Wished there were more online courses with same type of format. Enjoyed taking the online class. I had never used Google Plus, Blogger or some of the other social media tools used in the class. I felt like I was going all over the place online and not to mention this was my first online course. I liked that everyone had to use the same space to do their work and when other students posted words I didn't know I looked them up. The hardest part was knowing where to go.	The professor gave several tools for the non-native speakers to continue to practice their Spanish. Even as a native speaker the professor has given several tips on the use of technology as well as the ability to practice Spanish. The online format is very convenient and very necessary for students that do not live close to the University. I thought it was really cool that if I didn't have my computer I could go on my phone and use the apps.	Initially when the course started I had a BlackBerry and I couldn't access the social media tools easily. For the sake of this course, I bought a smartphone and really like using the smartphone. I felt I needed to get a smartphone to participate in the class although I was thinking of purchasing one before the start of the class. If it wasn't because we had such a lenient teacher I don't know if I would have done as well in the class. I think it was easier to participate in this class. When I am in (on ground) class there really isn't a lot of participation to begin with, I feel like I am raising my hand so there isn't dead silence because it's awkward.	I did not feel that the level of technology was too much. In fact I learned a lot that I feel will help me move forward in my other courses. Also, I would have thought that the younger students would have known more about the technology used in the course but we all learned together. We all learned a lot. The course was overall enjoyable and helped me to learn not just as student but as a person. *I had never used Google Plus, Blogger or some of the other social media tools used in the class. I felt like I was going all over the place online and not to mention this was my first online course. I liked that everyone had to use the same space to do their work and when other students posted words I didn't know I looked them up.

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Table 5. Continued

	Access	Participation	Attitude	Deep Learning
	<p>I learned how to do a screenshot on my computer. The class really introduced me to a lot more than I had ever used before. I think we pretty much covered everything (in our discussion).</p> <p>The technology portion of this class made it much easier to communicate than in other online courses.</p> <p>To see post was a lot more appealing to follow along with what others were doing was a simple click of the mouse.</p> <p>I learned more about the language because of the online class format.</p> <p>The grammar it's easier to understand when you can see it and manipulated on your own than just learning it from someone who lectures.</p> <p>Modern use of the language.</p> <p>Kids today in Spanish speaking countries are using social media.</p>		<p>But I think we are more motivated to do the online participation because we are constantly getting notifications that people are posting that that I am falling behind so I have to get on this.</p>	<p>*The class really introduced me to a lot more than I had ever used before. I think we pretty much covered everything (in our discussion). It helped more than we could have ever brought to it.</p>

- Student felt that there should be more online courses in all department.
 - Student stated that in their previous class the professor(s) would explain via power points but didn't take it further. Once the class was over there was no follow-up.
 - The professor was a lot more involved than previous experience of online course. The professor was communicating with us a lot more than other professors do in online courses.
 - Professor sent weekly updates of what the class had to do. Not sure if would have been the same if it had been another professor because I'd never taken another online class.
- PLEASE NOTE if you see an * it means that the comment fell into more than one category.

APPENDIX 4

The level of engagement in the Google Plus Community Posts for Weeks 10, 11 and 12 of the semester (when we reviewed the subjunctive) was established following these guidelines.

We gave points for the following:

- 1 point per post
- 1 point for each comment to one of his/her posts
- 1 point for each comment made to another student's post
- 1 point if there was evidence of communicating (that is, if the comment was something more than "great post!")
- 1 point if there was evidence of learning by their comment

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We took off points for the following:

- 1 point for every instance in which the student did not answer a question addressed to them in the post.

According to the points obtained by the students, we established this scale:

15 - 9 points: Highly engaged

8 - 5 points: Moderately engaged

4 - 0 points: Poorly engaged