**JLER**
Vol 7, No 2
Copyright © 2021, CLEAR, INC.
http://journals.sfu.ca/cvj/index.php/cvj/index

# BILINGUAL TEACHING PRACTICES: MEETING THE NEEDS OF LATINA/O YOUTH IN SECONDARY SCHOOLS

Marco A. Bravo
*Santa Clara University*

Claudia Rodriguez-Mojica
*Santa Clara University*

**AUTHOR NOTE**
Correspondence concerning this article should be addressed to Marco Bravo, School of Education & Counseling Psychology, Santa Clara University, Santa Clara, CA 95050.
E-mail: mbravo@scu.edu

ABSTRACT
This multiple-case study sheds light on bilingual secondary pre-service teacher practices and the instructional pivots they make to deliver content area instruction in Spanish to secondary Latina/o emergent bilinguals. Lesson plans and interviews with pre-service teachers were analyzed to examine the challenges and possibilities of bilingual instruction at the secondary level. Issues such as absence of multilingual instructional material and knowing the academic content in Spanish were identified as obstacles. Yet, the resourcefulness of pre-service teachers to locate materials online led to instructional pivots that allowed the primary language of Latina/o students to serve as a tool for accessing often abstract content.

Keywords: Bilingual, Secondary Latina/o, Translanguaging

## Introduction

While still more can be learned about bilingual practices in elementary schools, research is needed about bilingual instructional practices at the secondary level. The scarcity of research on bilingual education serving Latina/o students in secondary schools is likely due to the common stagnation of dual language programs after elementary school. Dual language programs, a type of bilingual program, look to support students' bilingualism and biliteracy. Partly to blame for the stagnation of these programs includes the availability of target language curriculum and other instructional materials across subject areas, student attrition, and a lack of qualified content area teachers prepared to teach in the target language (Boyle et al., 2015; Montone & Loeb, 2000). Few teacher education programs currently prepare teachers to be dual-language teachers in secondary schools in California. A review of teacher education programs that have been accredited by the Commission on Teacher Credentialing (CTC) in California to offer a bilingual authorization to secondary teachers revealed only two programs in the state (CTC, 2017). The scarcity of bilingually authorized secondary teachers may be the reason for the limited number of bilingual programs at the middle and secondary school levels.

In the northern California county where the present study took place, there are 16 dual language elementary programs, five dual language programs offered in middle school, and two at the high school level. A review of the middle and high school programs in the county shows that most subject areas are taught in English and two courses are offered in the target language. With goals of bilingualism and biliteracy by the time students graduate, it is difficult to see this possible with breaks in opportunity to build language and literacy skills in the target language.

The lack of bilingual programs at the secondary level means a missed opportunity to reap the benefits of knowing two languages for Latina/o students. In addition to social and cultural benefits, recent research on bilingualism suggests that there are also cognitive benefits to being bilingual. Healthy bilinguals across their lifespan have been recognized to have enhanced executive control (Bialystok, 2011; Bialystok et al., 2009). Executive control manages processes responsible for cognitive functions like attention, reasoning, problem solving, and planning. Perhaps due to enhanced executive control, bilinguals also benefit from a delay in the onset of behavioral variants of dementia by four to six years (Alladi et al., 2017). A recent study on individuals who had recently suffered a stroke found that while bilingualism does not delay aphasia after a stroke, aphasia is less severe for bilinguals when compared to monolinguals (Paplikar et al., 2018). There is also evidence of economic benefits of bilingualism, particularly salary benefits for bilinguals in the beginning stages of their careers (Agirdag, 2014; Rumbaut, 2014). Our findings provide insights into the variables that promote and inhibit teachers' use of students' primary languages at the secondary level that would allow these students to reap the benefits of their bilingualism.

## Bilingual Spaces in Secondary Level Content-Area Instruction

The bilingual education field has seen an increased call for bilingual instruction in target language and English-medium classroom environments. This is particularly good news for Latino/a students whom perform best academically in these instructional spaces. Moreover, the field is shifting from a static and isolated view of bilingualism to one of dynamic bilingualism where languages interact and influence one another (de Jong, 2016). The dynamic language practices of bilinguals have been called translanguaging (García, 2009; García & Wei, 2014). We use translanguaging as a theoretical framework to understand the language practices of the bilingual secondary pre-service teachers of focus in our study. As such, we view the natural and flexible language practices of bilinguals as the norm. Translanguaging recognizes the existence of a single linguistic repertoire from which bilinguals and multilinguals draw from to negotiate and make meaning in a variety of communicative spaces.

Bilingual teachers are developing expertise in leveraging translanguaging to support student learning (Celic & Seltzer, 2013; García et al., 2017; Mazak & Carroll, 2016). Pontier and Gort (2016) report on dual language bilingual teachers enacting translanguaging practices to support students' vocabulary development and understanding of the structures of the narrative genre. In this study, a teacher is captured requesting a student's use of target vocabulary in English, creating a space for Latina/o student response in Spanish and later following up in English. Such fluid language practices make allowances for Latina/o students to use language features (i.e., vocabulary) that are most salient for the task at hand. This practice breaks from previous dual language models where teachers were trained to keep languages separate, so as to not confuse students (Ramirez, Yuen, Ramey, & Pasta, 1991). Below, we review studies on the language practices in dual language secondary level environments and recommendations of translanguaging

as pedagogy in English-medium content area classrooms delivering instruction to Latina/o students.

**Language practices in target language content instruction**

As noted above, most dual language programs can be found in elementary schools, and there are few studies on dual language teaching practices at the secondary level, especially high school. Dual language programs in secondary schools often consist of language arts and social studies in the target language (de Jong & Bearse, 2014; Menken & Avni, 2017; Montone & Loeb, 2000). The remainder of the content areas are often taught in English.

In a recent study of a Hebrew-English dual language middle school program in New York City, Menken and Avni (2017) describe teachers' use of flexible language practices instead of strictly separating languages in instruction as recommended by city dual language bilingual education policy and much of the dual language literature. The middle school offered Hebrew-medium instruction in a Hebrew language and culture class and social studies (Menken & Avni, 2017). Teachers shared content videos in Hebrew and engaged the class in discussion in English while using Hebrew expressions; included Hebrew-English glossaries in worksheets; permitted students to translanguage in the classroom; and often provided English, Arabic, and Hebrew definitions for key vocabulary (Menken & Avni, 2017). Menken and Avni (2017) argue that flexible language practices were necessary to provide students with a wide range of home language practices and exposure to Hebrew with access to and engagement with content. Translanguaging in secondary level content areas can be helpful, however, an absence of quality content material in the target language can pose instructional challenges. In describing Spanish-medium social studies instruction in dual language middle schools, Rodríguez-Valls, Solsana-Puig, and Capdevila-Gutiérrez (2017) lament the challenges that a lack of quality social studies sources pose to teaching social studies in Spanish. Noting the rarity of bilingual primary sources, Rodríguez-Valls et al. (2017) describe the possibilities afforded by Article I of the Treaty of Guadalupe Hidalgo when students analyze, interpret, and compare texts in Spanish and English. Given the lack of bilingual historical primary sources for use in United States social studies classes, teachers are often tasked with translating original sources. Such translation, however, requires teachers and students to be cognizant of the cultural or structural features lost in translation (Rodríguez-Valls et al., 2017). Rodríguez-Valls et al. (2017) argue for a horizontal collaboration model where social studies and target language arts teachers work together to identify skills, strategies, and common assignments that will promote advanced levels of bilingualism and biliteracy.

Middle school teachers in de Jong & Bearse's (2014) study of a two-way immersion (TWI) strand within a school recognized the advantages of collaboration between social studies and language arts teachers. The absence of common planning time, however, posed challenges to social studies and language arts collaboration (de Jong & Bearse, 2014). Similar to the challenges described by Rodríguez-Valls et al. (2017), middle school social studies teachers in de Jong and Bearse's (2014) study reported a lack of grade level high quality target language materials. This unequal access to high quality content materials required teachers to spend additional time preparing lessons because of the translation work involved. Two-way immersion social studies teachers also shared that the expectation to align their curriculum with other middle school teachers restricted their ability to more fully explore issues of social justice important to the TWI mission (de Jong & Bearse, 2014).

**Translanguaging opportunities in English-medium content instruction**

While dual language classroom environments provide fertile ground for teachers and students to access and use their full linguistic resources, bilinguals in English-medium classrooms[1] can also draw on their linguistic resources to use a language other than English. The well-known Sheltered-Instruction Observation Protocol (SIOP; Echevarria et al., 2007) includes "clarifying key concepts in first language" as a feature and thus suggests leveraging students' bilingualism to make sense of academic content in English-medium classrooms. In a study examining the efficacy of the SIOP model in science instruction, researchers found positive trends but the differences between the SIOP and control group were not statistically significant (Echevarria et al., 2011).

In a study of two small high schools in New York City, García, Flores and Chu (2011) describe the bilingual practices that teachers and students enact within schools that do not meet traditional definitions of bilingual schools. Cooperation Academy, one of the small schools in the study, has taken great care to hire Spanish-English bilingual teachers, guidance counselors, aides, and school administrators and gives students the option to complete key long-term projects in Spanish, English, or in both languages (García et al., 2011). The second school, International High School, also hires bilingual staff and encourages students to use the languages of their choice to make sense of the content. Students use Google Translate and peer language tutoring and the teachers often interact with groups of students in the languages the students are using (García et al., 2011).

Recently, researchers and practitioners (Celic & Seltzer, 2012; García et al., 2017) have created educator guides aimed at providing strategies and activities to leverage students' bilingualism to learn content. García, Johnson, and Seltzer (2017) present Stephanie's classroom, an 11th grade social studies teacher, as an illustrative example of how a monolingual teacher can enact translanguaging pedagogy in high school. In a unit on César Chavez, Stephanie provided all students with Spanish and English readings side by side, gave students a choice on reading one version or both, and emphasized that students were free to take written notes in the language of their choice. Stephanie often encouraged students to use their complete linguistic resources to take notes, analyze and discuss texts, and to answer worksheet questions (García et al., 2017).

These studies suggest there are spaces within instruction at the middle and secondary school level to bring to bear the linguistic resources of emergent bilinguals. Yet challenges exist, including availability of materials and time to translate materials. These studies observed various practices with in-service teachers. The present study focuses on pre-service teachers and their teaching practices as they navigate integrating both Spanish and English into their instruction.

## Methods

A case study approach was implemented to capture complexities of the individual participant in their unique classroom context and do so holistically. This allowed us to report individual (e.g., Spanish language proficiency, Latina/o identity) as well as context (e.g., school language policy, language of instruction) characteristics and specifically how the two influenced each other. The case study design permitted us to go in depth with our participants in what Yin (2017) refers to as 'real-world context'.

**Case Study Participants**

**Luis** (pseudonym) is male. He is 28 years old and holds a Bachelor of Science in

---

biological sciences with a minor in chemistry. His ethnic background is Latino (Mexican-descent), and he is fluent in Spanish and a primary speaker of the language. He describes his fluency in Spanish as more colloquial than academic. He is currently in the Single Subject Science intern pathway and is in the Bilingual Authorization program. He matriculated in the Bilingual Authorization program to be able to instruct in Spanish to ensure newcomer students would gain access to the chemistry content he was hired to teach. He is the teacher of record in a high school with 95% Latinx students, where he teaches chemistry.

**Karla** (pseudonym) is female. She is 28 years old and holds a Bachelor of Science degree in psychology. She is a native Spanish-speaking Latina (Mexican-descent) and describes herself as working to develop her academic Spanish. She is currently in the Single Subject Science pre-service Bilingual Authorization pathway. Karla enrolled in the Bilingual Authorization program to ensure her students had opportunities to sharpen their Spanish language skills. She is a student teacher in a high school with 52% Latinx students, where she teaches sheltered biology.

**Diana** (pseudonym) is female. She is 26 years old and holds a Bachelor of Arts degree in history with a minor in education. She is Latina (Peruvian-descent) and is a native Spanish speaker. Like Luis and Karla, Diana is working to develop academic Spanish. Her goal in enrolling in the Bilingual Authorization Program was to support her students in using all of their language skills to learn U.S. History and civics. She is currently in the Single Subject Social Science pre-service Bilingual Authorization pathway. She is a student teacher in a high school with 22% Latinx students, where she teaches U.S. History and civics.

**Setting**

The teacher education program where the participants were enrolled offers a post-baccalaureate Single Subject Preliminary Credential across subject areas—World Languages, Social Science, English, Mathematics, Science, and Physical Education. The program integrates professional coursework and clinical field experiences guided by state teaching performance expectations. Candidates have a year-long clinical experience with a seasoned cooperating teacher in a school context that is diverse linguistically and ethnically. There is an integrated Master of Arts in Teaching degree, which candidates receive upon successfully completing the teacher education program. To fulfill the program, candidates must complete 50 quarter units, the equivalent of 17-ten week courses. The program can be completed in one year (Summer-Fall-Winter-Spring) or two years (Fall-Winter-Spring-Summer-Fall-Winter-Spring). The same number of courses are covered in both the one and two-year programs. Simply in the two-year program, the courses are spread across a two-year span. The program is situated in northern California where Latina/o students make-up 38% of the student population.

The teacher education program also offers an intern teacher pathway. This pathway allows teacher candidates to be employed full-time while they complete the teacher education program on a part-time basis. Students in the intern pathway take the same courses as those in the pre-service pathway, yet do so in a different sequence and with a different partnership structure with the collaborating school districts for their clinical experience. Instead of a cooperating teacher, interns have a mentor that is typically the department chair of the program.

Pre-service teachers can also enroll in the Bilingual Authorization program. Pre-service teachers that decide to add on this authorization to their preliminary credential must show proficiency in Spanish, complete three additional courses (Bilingual Foundations, Bilingual Methods, Latina/o Language and Culture) and be placed in a clinical site with a cooperating teacher

that teaches in their students' primary language, bilingually, or in English with many primary language supports.

**Instrument**

We used an interview protocol to document how novice teachers made sense of their bilingual practices. An interview protocol was used to capture participants' reflections of their instruction as well as their planning. These reflections allowed us to capture the plans teachers were making for Spanish language, and they also provided opportunities for critical reflection that allowed them to see instances of where the translanguaging practices may have been possible. The open-ended interview posed questions with probing follow up queries around three main topic areas: a.) participants' background; b.) subject area learning goals, and; c.) emergent bilingual pedagogy.

**Demographics**. The participant background information questions included questions about age, ethnicity, and educational background, as well as questions about languages spoken by participants. Participants were asked to describe their Spanish and English language proficiencies around areas of reading, writing, listening, and speaking. Participants were also asked to tell what their first language was and the context in which they learned Spanish and English.

**Subject Area Learning Goals.** This section of the interview posed questions about the subject area the participants were teaching and materials used to teach the content, as well as learning goals they had for their students. Participants were also probed about their sense of efficacy in teaching their content area, as well as efficacy in teaching their content area in Spanish. Additionally, participants were asked about the resources they had available to teach their content and to teach their content in Spanish (e.g., *Do the curricular materials you use provide the support you need to be a successful teacher of your content? How so?/Why not?*). Given some participants are in the pre-service teacher pathway, and therefore assigned a cooperating teacher, we asked about the support the cooperating teacher was providing to assist the participant in becoming a more successful teacher of the content.

**Emergent Bilingual Pedagogy.** Participants were also asked about the bilingual pedagogy they employed and if they employed it, why they did so. Questions were posed about how successful the participant felt as a teacher of emergent bilinguals, challenges they faced teaching the subject to emergent bilinguals, and the supports they received from their school to support the schooling experiences of emergent bilinguals. We also asked questions about the support the cooperating teacher provided to ensure the success of emergent bilinguals. Participants were also asked to evaluate the curricular materials being used in the classroom for their support (or absence of) in leveraging emergent bilinguals' primary language (e.g., *Do the curricular materials, or your cooperating teacher promote the use of the students' primary language?*). We also posed two questions that had participants consider the instruction they provided and whether the students' primary language was leveraged. One question posed: "*Think back to instruction you provided in the last week. Have you had the opportunity to use the students'* primary *language in your instruction? (probe: Can you provide some examples? If none, ask about online resources in L1; bilingual dictionary; L1 use*)." A second question about the participants' own emergent bilingual pedagogy had participants reflect on a lesson plan they had constructed for their content and students (participants were asked to bring 2-3 lesson plans they had previously taught in their teaching placement--*Take a look at one of the lesson plans you have prepared. Do you see instances where you leveraged the students' primary language? In retrospect, are there ways in*

*which you might have drawn on or built on the bilingualism of the students? (probe: are there ways in which you might have elicited students' primary language? How? Where?).*

Each interview was conducted at either the participant's school site or at an office of the teacher preparation program. The interviews took approximately 30 minutes to complete. No incentive was provided to the participants for their participation in the research. Participants were informed that the interview could be conducted in whichever language(s) they preferred.

### Data Analysis

To identify the practices our pre-service teachers engaged in as they worked to leverage their high school students' bilingualism, we conducted interviews and collected a lesson plan and a reflection of the lesson. During the interview, we asked the pre-service teachers to walk us through the lesson plan and identify spaces where they saw opportunities to leverage their students' bilingualism. We first coded interview transcripts to identify prevalent themes (Miles et al., 2013) within each interview, or case. Then, we compared and narrowed prevalent themes across participants. We reviewed lesson plans and reflections to confirm or disconfirm evidence forming the themes. Our findings draw on the most prevalent themes having to do with leveraging of the pre-service teachers' and students' bilingualism in the high school content.

## Findings

### Luis: First Case Study Participant

Several variables influenced the degree of primary language support that Luis provided his students. These variables include a school context where the Latina/o students' primary language is valued and expected to be utilized to support student understanding; a highly linguistically homogeneous student body; being a teacher who embraces the use of technology to support his students; and lastly, his training to become a bilingual educator. Below we unpack these constructs that we culled from Luis's interview.

**School Context**. The school where Luis completed intern training is largely comprised of Latinx (97%) and White (1%) students (2% was unspecified). While not much support is available for Luis to leverage the bilingualism of his students from the curriculum he is expected to use or assistance from the administration in the form of professional development, Luis sees the school as valuing students' bilingualism. The school is primarily made up of English Language Learners. In the 2016-2017 school year, only 4% of the student body was identified as "English-Only" students. The school's mission is to graduate students that are "bi-literate in English, Spanish, mathematics and science." A quick tour of the school website reveals that this is a critical goal of the school, as information about the school is available in both Spanish and English. For example, the parent and student handbook are available to download in both Spanish and English. Garcia (2001) suggests this welcoming aspect of bilingualism in schools makes for a better adjusted student body. Yet, in the classroom, Luis reveals the school could do more to support his efforts to leverage the students' primary language. He states:

> I think we need more improvement with that [support to provide Emergent Bilinguals]. Right now, we need more resources—materials, para-educators that are bilingual would be great. We have some students with very little English and others that are fluent. It's hard to teach all those students. A bilingual paraprofessional would be able to help me with students that need more help. (February, 2018)

When asked specifically about the curriculum materials he uses to teach chemistry, he mentions that the educative elements of the curriculum do not offer any help to leverage the Latina/o students' primary language. This is similar to the findings by Boyle and colleagues (2015), where they found that the absence of educative curriculum features addressing the home language of students. The more generic English Learner pedagogy suggestions are offered like "use visuals, review vocabulary." Moreover, in the school context, his mentor teacher has not provided Luis with the models of how to use the students' primary language to teach chemistry. In the interview, Luis mentions that his mentor teacher has provided him with excellent feedback on making his instruction culturally relevant to students, but not with helping Latina/o students use their primary language to learn the chemistry concepts he was responsible for teaching.

**Linguistic Homogeneity**. Luis mentioned that the classes he teaches have been entirely filled with Latinx students identified as Latina/o English Learners, and he suggests this is the reason he has been able to provide primary language support in his chemistry sections. During class lectures, Luis uses powerpoint to relay key concepts to students. He mentions that he has translated these powerpoints to Spanish and made them available to his students. See the below example.

**Figure 1.** PowerPoint Translation

**What changes Atmospheric Pressure?**
*(¿Qué cambia la presión atmosférica?)*

Weather Conditions *(Las condiciones climáticas)*

Stormy Weather - low pressure *(Clima tormentoso -baja presión)*

Fair weather - High Pressure *(Buen tiempo - Alta presión)*

Altitudes *(Altitudes)*

Higher Altitudes - low pressure, because there is less air pressure pushing down the Earth's surface *(Altitudes más altas: baja presión, porque hay menos presión de aire empujando hacia abajo en la superficie de la Tierra)*

Luis mentions that this type of support would not be possible if he had languages beyond Spanish and English represented in his classroom. When asked, "*How are your students responding to the instruction you provide in terms of both learning and engagement?*" Luis responds that the Latina/o students are learning. He mentions that 85% of his students are engaged. Luis explains that the students who are not engaged are those identified as English Language Learners with very little English proficiency. For these Latina/o students, he provides the lecture notes in Spanish. He declares that he has also found reading material in Spanish about the topics they are studying and sends these resources home with the students. In his lectures, he also calls attention to cognates and makes it a point to call on students who appear to be least engaged in the class in order to motivate them. He does state ,though, that he struggles with finding the Spanish cognate of some words. He gave the example with *thermodynamics*. He was not sure if in Spanish, the two morphemes are flipped and hence pronounced *dinámicaterma*. Yet after some instruction about word order in Spanish to his class, his students found an example in their Spanish reading material where the term is pronounced *termodinámica*. Such conversations about science vocabulary have been shown to support both language and content learning for Latina/o English learners (Bravo & Cervetti, 2014).

**Technology**. Luis has found technology to be a particularly useful tool to integrate Spanish into his instruction—Newsela, Google Translate, YouTube. Luis uses Newsela, a database of leveled reading materials, to provide his students with reading material about topics he is covering in class in Spanish. He downloads these reading materials and sends them via email to his students with the goal of building background knowledge. Luis likes these texts because they are written at a reading level that is accessible to his Latina/o students. Below is one example of a text he made available to his Latina/o students.

**Figure 2.** Spanish Reading Text

**Pequeños sismos bajo el Monte Santa Helena sugieren que el magma está cargando las cámaras**

By Alan Yuhas, The Guardian, adaptado por la redacción de Newsela
05/15/2016

Grade Level **7**
Word Count **484**

El Monte Santa Helena emite un penacho de vapor y ceniza el 1 de octubre de 2004.

Google Translate is another tool that Luis uses to translate worksheets, instructions he provides to students, and lab reports that students will complete. Google Translate allows a person to import, or copy and paste, text, and the translation application will translate the text to multiple languages. Below is an example of a translation that Luis made.

**Figure 3.** Google Translate of Instructions.

English Spanish French English - detected

Student Worksheet Time:20 minutes Answer the following questions :
QI. Write the names of the reactants taking part in the chemical reaction during the demonstration.
Q2. Write the chemical formulae of both the reactants.
Q3. List the observation (s) which justify that a chemical reaction has taken place.
Q4. The products formed during the reaction are lead oxide and potassium nitrate. Write a word equation for the complete chemical reaction that has taken place.
Q5. Write the skeletal equation with chemical formulae of reactants and products.
Q6. Fill the following table on the basis of the above skeletal chemical equation:

632/5000

English Spanish Arabic Translate

Horario de la hoja de trabajo del alumno: 20 minutos Responda las siguientes preguntas:
Ql. Escriba los nombres de los reactivos que participan en la reacción química durante la demostración.
Q2. Escribe las fórmulas químicas de ambos reactivos.
Q3. Enumere la (s) observación (es) que justifican que se haya producido una reacción química.
Q4. Los productos formados durante la reacción son óxido de plomo y nitrato de potasio. Escribe una ecuación de palabras para la reacción química completa que ha tenido lugar.
Q5. Escriba la ecuación esquelética con fórmulas químicas de reactivos y productos.
Q6. Complete la siguiente tabla en base a la ecuación química esquelética anterior:

Suggest an edit

Luis also makes use of YouTube to illustrate various chemical reactions. To integrate the Latina/o students' primary language, Luis turns on Spanish subtitles or allows his students to view the video with Spanish overplay. Below is a screenshot of one of the YouTube videos with the Spanish subtitles he utilized.

**Figure 4.** YouTube Video: First Law of Thermodynamics.

First Law of Thermodynamics

U = internal energy of a gas

Eso generalmente se formula, esta primera ley de la termodinámica

These strategies that Luis employs are partly implemented for accessibility reasons (e.g., Latina/o students learning the periodic table or about chemical reactions) but also to engage and motivate his Latina/o students (e.g., feeling their language is welcomed, feeling proud of bilingualism).

**Bilingual Training.** Luis partly attributes his explicit models for integrating Spanish into his teaching from the bilingual training he is receiving. In the interview, Luis was asked to review a lesson plan he had created and to reconsider some of the instructions he provided. He was given several minutes to review his lesson plan that he had submitted for a course and that he taught at his intern placement. Pointing to the anticipatory segment of his lesson plan, he recalls, "Say the instructions in Spanish. It would not take long to do." Then pointing to the procedure segment of the lesson plan, he states, "Model the materials that had to be used in the lab and model in Spanish." He mentioned that he often thinks about using the primary language of Latina/o students solely in the beginning because it can motivate students, but now as he rethinks the lesson, he sees space for the primary language to be integrated at various points throughout the lesson. He continues to explain that at the close of the lesson he could have allowed students to share what they learned with a bilingual buddy in Spanish and then have them translate that to English, if the Latina/o student was capable.

Luis saw a space for integrating Spanish into his instruction, even though the curricular materials he was provided did not suggest leveraging Latina/o students' primary languages. He has been resourceful with technology to make his instruction more accessible through the integration of students' primary languages. He pays close attention to ways he can integrate the use of Spanish in his chemistry class to not only allow his students to acquire deep understandings of chemistry, but also to motivate them to be engaged in wanting to learning chemistry and to be proud of their bilingualism.

## Karla: Second Case Study Participant

Karla's student teaching placement classes and classroom demographics played key roles in the amount of primary language support she provided in class. Both of the classes to which she was assigned were identified as sheltered biology classes, and her students were linguistically and ethnically diverse. We turn to Karla's interview to describe the challenges she faced in using students' primary languages in instruction.

**School context.** The school where Karla completed her student teaching is largely comprised of Latinx (52%) and Asian (39%) students. Only 12% of the students in her school were identified as "English Only," or monolingual English speakers. The high school makes important documents available in Spanish, Vietnamese, and English. The documents in the community's home language signals an effort to make information accessible to non-English speaking students and families. The school offers sheltered courses in an attempt to provide emergent bilinguals with access to content while supporting their English language development. Sheltered courses traditionally have the primary goal of learning content and secondary goal of acquiring English.

**Classroom context.** Karla was placed in two sheltered biology courses for her student teaching. The first course was made up of students whose first language was Spanish and were identified as English Learners, but spoke predominantly English in class and with peers. The second course was largely comprised of students who had recently arrived in the United States with beginning English proficiency. When asked how successful she felt as a teacher of emergent bilinguals in her sheltered biology classes, Karla shared that she's been struggling with wanting to provide primary language instruction and knowing that her sheltered class focuses on biology *and* English language acquisition. She explains:

> It's really hard. I feel like I'm battling a lot with having this class where my students are supposed to be learning English, and biology, but I can't teach them in Spanish... how do I...Like I can't sit there and give this part of the lesson in English and then repeat the exact

> same thing in Spanish. It's, I don't feel like it's feasible, so it's really difficult to know what parts I need to go over with the students in Spanish. I don't know. (February, 2018)

When asked if she uses any Spanish in her teaching, Karla replied:

> I try. Yeah, I'll translate words here and there and be like, 'hey, do you know how to say this?' and someone will pop up and say it to the whole [class] and I'll be like 'yeah' you know, that makes sense, that's great. So, I try, I just don't know how much Spanish to bring into the classroom would be appropriate? And I talked to my field supervisor and he's like 'yeah, you know, but you have to tell them the purpose of this class is to learn English,' but I'm like 'yeah, but I'm not just going to be like sorry, learn English.' So, it's something that I'm trying to figure out. (February, 2018)

Karla struggles with identifying what content to cover in the students' primary language, especially since her classes are formally assigned as "sheltered." This challenge is compounded because she has newcomers in her classes with very beginning English proficiency. Karla explains:

> I have three students who have been in the country one or two months, so I can really only talk to them in Spanish, and I have some difficulty. Sometimes, you know, I have them talk in partners and things like that and like help each other translate, but then I feel like guilty, because it's like, 'you speak English and Spanish, now translate everything for this student.' I don't think that's fair either. So, I'm battling with that. (February, 2018)

Karla's lesson plan documented the use of Spanish to translate vocabulary. She asked the class to help translate, and she also partners bilingual students with newcomer students, but she feels uneasy about having students be responsible for translating course content. Like the findings from Menken and Avni (2017), Karla's translanguaging practices included utilizing both languages rather than keeping the languages apart. Karla's reluctance to use her Spanish to provide primary language support for Spanish speakers is not only due to the "sheltered" designation of her biology class, but also to the linguistic heterogeneity of her classes and her desire to provide equitable access to all of her students.

**Linguistic heterogeneity.** Unlike Luis's school where most of the students were Latinx and shared Spanish as a primary language, the largest student populations at Karla's school were Latinx and Asian. The students in her classes were primary speakers of Spanish and Vietnamese. Karla's Spanish was helpful in making content accessible to Spanish speakers, but her inability to speak Vietnamese and provide the same support to all of her students worried her. Her worry was brought to the surface as she shared her concerns about using Spanish to aid students in her classes:

> What about my students who are Vietnamese, and they speak Vietnamese? Is it fair for me to use all of this Spanish and be like 'well you guys can deal with the English?' So, I feel guilt sometimes, right? So there's this one time where a student's like, 'oh Ms. Nguyen would translate for us,' and I'm like, 'I would if I could. I don't speak Vietnamese. I'm sorry.' (February, 2018)

Karla's guilt about not being able to provide Vietnamese language support like she did for Spanish was evident by the tears streaming down her face when she shared this. Her inability to provide the same support for both groups of students was clearly a source of deep concern. While she was unable to provide the same level of primary language support for her Spanish and

Vietnamese speakers, Karla translated vocabulary terms into Vietnamese using Google Translate (as evidenced by her lesson plan); provided structured notes where students could fill in the missing information as they learned the content in class; used visuals; and encouraged students to use their Chromebooks for electronic translations. Sometimes, Karla translated entire handouts into the students' primary languages. Even though Karla struggled to identify when to provide primary language support, she explained that she often translated important biology concepts into Spanish and asked the class for help translating the concepts into Vietnamese. When using instructional videos, Karla was aware that she could turn on captions for primary language support, but she questioned the quality of the translations, especially for Vietnamese, since she was unable to verify the translations herself.

Overall, Karla wanted to provide primary language support in her sheltered biology class but was unsure how much and when to draw on students' home languages. Her primary goal was to help students develop scientific thinking and an understanding of biology. She was aware that, because she taught sheltered biology, she also needed to help students develop their English language skills. In her mind, using primary language support was inconsistent with the goal of developing the English language. She made instructional decisions based on what she thought would help her students learn biology and develop scientific thinking and used primary language support as a result. Still, she questioned whether she was making the right decisions in using primary language support and worked to provide her Vietnamese speaking students with equitable access to content.

## Diana: Third Case Study Participant

Diana's school and classroom context were quite different from Luis's and Karla's placements. Diana's school is located in an affluent area in northern California that has access to many resources. For her student teaching, she was assigned to teach U.S. History and civics in classrooms with few Spanish speaking students. The low number of emergent bilinguals in her classroom and the department's expectations for instruction created challenges to Diana's ability to leverage her Spanish to provide primary language support. Even though she saw little room to provide primary language support in her placement, Diana worked to develop her content specific Spanish and rehearsed her lessons in her primary language.

**School and classroom context.** Diana completed her student teaching placement in a school where approximately 65% of the students were identified as speaking "English Only." . The school student population was comprised of 4% Black or African American, 36% Latinx, 20% Asian, 22% White 12% Filipino and 4% unspecified. According to Diana, she had one emergent bilingual in her U.S. History class and three in civics. Her emergent bilingual student in U.S. History demonstrated advanced English proficiency and a solid understanding of content, so Diana did little to provide him additional support. In civics, Diana provided the same support to emergent bilinguals that her mentor teacher provided. She had little flexibility to do otherwise because the civics department all followed the same curriculum and instructional methods. All civics teachers delivered a lecture using the same PowerPoint slides, used a department-created civics packet for every unit, and had students work on the packet for approximately half of the class.

Emergent bilinguals in all civics classes received an alternate multiple-choice exam, version C. The version C exam had simpler language, fewer answer options, and underlined key words. See the figure below for a comparison of version B and version C of a civics exam.

**Figure 5.** Version B and Version C of a Civics exam

**Version B**

2. Hobbes and Locke both defined the concept of the social co

   A. **obedience to a ruler in exchange for protection.**
   B. a set of principles for the operation of government
   C. the guarantee of prosperity in exchange for the pa
   D. that not even rulers are above the enforcement of

3. Rule of law is the

   A. philosophical basis for the development of a social
   B. belief that fascism is the best at providing order an
   C. **principle that everyone must obey the laws.**
   D. requirement that charters can only be changed thr

**Version C**

2. Hobbes and Locke both defined the social contract as

   A. a set of principles for the operation of government.
   B. that not even rulers are above the enforcement of tl
   C. **obedience to a ruler in exchange for protection.**

3. Rule of law is the

   A. **principle that everyone must obey the laws.**
   B. requirement that charters can only be changed throu

Deviating from the civics curriculum and modifying instruction in a way that differed from how the civics department at the school taught would have meant going against her mentor teacher's instructions and department expectations. Reflecting on her attempts to modify instruction at the beginning of the school year, Diana says:

> I've asked if I could stray away from it and they're like 'no, the students need to work with the packet, no matter what, it has to be done.' So that's the issue that I'm running into in which, at first I was really frustrated, and I was like 'but my kids need more than this, right?' When they're up and they're talking and stuff, they're really active, right, and they're really engaged, but if I'm telling them to sit down, you know, 'be quiet, look in your textbook for the answers,' then, of course, they're going to be a little bit turned off to it all. That's what I struggled with at first, but because now I've just learned to just accept it, I don't want to be like problematic in the department, because any change that I make, they would have to approve and implement as well.

At the time of the interview, Diana was teaching civics the same way as the rest of the team and she had only used Spanish a handful of times with her Spanish-speaking emergent bilinguals. The times when she used Spanish were to ask for assignments or to remind her Spanish-speaking students of the work they needed to submit.

**Spanish Fluency in Social Sciences.** Diana shared that while she considers herself fluent in Spanish, she has difficulty with Spanish vocabulary terms specific to her content areas. When asked for an example, she said:

> Como se dice 'New Deal,' right? Or como se dice 'Cold War,' or como lo llamaron, si tenía un diferente nombre...so, I think the New Deal would be an example right, because I think in Spanish, es la 'Nueva Regla'? Something like that, right, which when translated, it's not the same. Yeah, it's not the exact same, right, so things like that, where it's like, the perspective is different; why would they call it that versus the New Deal? And then what about Regla, why? Why is there a difference there? So, things like that. Maybe battalion...coup d'etat, you know, they're very specific, which is not even English. It's a French word that I now have to learn in Spanish.

To learn the Spanish translations for content specific terms, Diana turns to resources shared in her bilingual authorization courses and other resources she can find online. She struggled as did the participants in Rodríguez-Valls et al.'s (2017) study who found few quality resources available in the primary language of their students. Diana also turns to her mother, a primary Spanish speaker and immigrant from Peru, for help with Spanish translations and to practice her U.S. History lessons before teaching in front of the class. Diana rehearses the lesson by teaching them to her mother in Spanish. She does this as a way to make sure she has a thorough understanding of the content before teaching the material in English. She explains:

> In order to feel comfortable in my content, right, I'll have my powerpoint made in English, but I'll call my mom over, and I'll go [over] each slide in Spanish in order to help solidify my understanding, because sometimes I'll have to like play with the idea and I feel like, if the idea is not solid in English, then I can't translate it into Spanish. So, I found myself a lot of the time I'll be explaining these concepts and I'll be like wait I don't know, wait is that really what I want to say, and then I'll have to think over it again. Then at the same time, I learn Spanish with my mom.

By pushing herself to explain history concepts to her mother in Spanish, Diana created a self-check system that allowed her to identify areas that she needed to further develop. If she was able to explain history concepts in Spanish in a way her mother understood, then it was likely that the concepts would be clear to her students as well. While Diana had little flexibility to provide primary language support in her student teaching, she leveraged her own bilingualism to solidify her understanding of content and added to her knowledge of content-specific terms in Spanish. Due to the scripted nature of instruction provided by Diana, the lesson plan reflection was not conducted with her.

## Mediating Factors in Primary Language Integration

Several variables mediated the role the primary language played in the instruction the three participants provided to their secondary level students. Context, resources, and curricular materials were some variables that brought about the use of the primary language in their sciences and social sciences courses. Below we describe these variables and how they impacted the participants differently.

### School Context

The goals and missions of their schools mattered in how two of the three participants viewed the role of students' primary language in schooling. Luis's school provided many signs that he should leverage the students' primary language in his instruction. In comparison, this theme was not referenced in Karla and Diana's interviews. For Karla, in particular, she understood that given she was teaching a sheltered biology course, she needed to focus on teaching biology and provide opportunities for her emergent bilinguals to practice using and hearing English. This perspective of what it means to teach a sheltered course does not parallel with what sheltered instruction can include. Sheltered instruction includes the use of the primary language to make the content comprehensible (Echevarria et al., 2006). In the Sheltered Instruction Observation Protocol (SIOP), a common model used in schools to deliver content instruction, the primary language is suggested as a strategic practice to make content comprehensible--"Ample opportunities for students to clarify key concepts in L1 [primary language]" (Echevarria et al., 2006, p.16). Both the

teacher education program and the school where Karla is a student teacher need to emphasize that sheltered instruction includes space to leverage students' bilingualism.

**Classroom Linguistic Demographics**

The linguistic makeup of the students they served offered each of the three participants differing strategies to integrate the primary language(s) into their instruction. Diana had few emergent bilinguals in her class while Karla had more, but her students represented multiple languages. Luis's Latina/o students were overwhelmingly emergent bilinguals and were all primary Spanish speakers. Luis's class, while hyper segregated by language, as described by Gándara (2012), provided the easiest path to deliver primary language instruction in his course. Luis did not have to feel the guilt Karla felt when she was unable to support her Vietnamese students via their primary language. He could also use the primary language more often than Diana, given she only had a few Spanish-speaking students and not in every course where she was student teaching. While not mentioned by the participants, the primary language abilities of students also vary and may create challenges for students to learn content in a language where they may not have strong command of the academic register in that home language.

**Curricular Materials**

Only Diana mentioned that the curricular materials she was using provided examples of how to leverage the primary language of the Latina/o students to assist them in their content learning. The adopted materials that were provided to her had a bilingual glossary in her social science textbook. Students were able to view key vocabulary defined in their primary language to support their understanding of and participating in the learning of the content. Luis mentioned he would welcome his chemistry book being available in Spanish. He referenced absent these texts, his new arrival emergent bilinguals would miss out on a lot of chemistry content. More quality materials like those developed by García and colleagues (2017) would be welcomed by Luis. Establishing multilingual collaborative groups, utilizing multilingual texts, and leveraging bilingual glossaries would have helped Luis in assisting his students in understanding the chemistry learning goals he set for them.

Educative features in curricula are critical aspects of teacher's learning (Beyer & Davis, 2009), and not including elements of how the primary language can be leveraged to support content area learning is a missed opportunity. Some curricula identify cognates in the texts that students will engage with during instruction, as well as provide links to elements of the text in the students' primary language (Cervetti et al., 2015). Utilizing educative features of curricula to share with teachers' different approaches to integrating the students' primary language(s) during instruction can offer additional models for teachers to support their emergent bilinguals.

**Primary Language Proficiency**

Using their academic Spanish language proficiency, the participants were able to mediate the primary language integration into content. Luis struggled with the vocabulary of the content in Spanish, as did Karla. Diana similarly felt it necessary to practice the lessons she would deliver to her emergent bilinguals in Spanish with her mother. The teacher education program where the participants enrolled assessed their Spanish language proficiency, but the assessments conducted did not gauge the academic language of the contents they would teach. The program must do more to support the disciplinary language of the content in Spanish. Currently, the program offers three courses that are delivered in Spanish to continue the development of language. Given the struggles

our participants felt, these courses may require specialized attention to the academic language of the content in Spanish.

## Discussion and Purpose for Primary Language Integration

The purpose for leveraging the primary language in their classrooms also differed among the participants. Pursuing biliteracy skills among their Latina/o students and motivating and engaging students, as well as providing the scaffolding necessary to give Latina/o students access to the content were some reasons provided for using the primary language. Below, we discuss these themes further in providing comparisons between the three participants.

The three participants, as Latina/o teachers used their linguistic capital to address the needs of their students. They felt it was necessary to use the students' primary language to give them access to the content they were delivering. The abstract concepts they covered in their courses were best made accessible to students by using their primary language. Graphic organizers or additional wait time, common English Learner pedagogy (Diaz-Rico, 2017), would not be sufficient to support the learning of content for their Latina/o emergent bilingual students. The primary language was a bridge to provide access to content and keep high school students on pace to graduate on time with their primary English-speaking peers.

For Luis, it was more than access to content that pushed him to integrate the primary language into his chemistry class. He described how he used the primary language in his instruction to motivate his Latina/o students and to get them excited about chemistry and about school in general. This affective element was not mentioned by Diana or Karla, who focused their attention on content when asked about why primary language support should be a part of content area instruction. Part of the difference may have been Luis's additional experiences working with Latina/o youth and could potentially be explained by how many Latina/o emergent bilinguals he works with in comparison to Karla and Diana.

Luis similarly wanted his students to graduate being bilingual and biliterate. This was partially guided by the Seal of Biliteracy opportunity that students at his school can attain. Luis's school offered and promoted the State Seal of Biliteracy. This is "a recognition by the State Superintendent of Public Instruction to high school graduates who have attained a high level of proficiency in speaking, reading, and writing in one or more languages in addition to English" (California State Board of Education, 2012). The Seal of Biliteracy was also an option at Karla and Diana's school sites, although not as widely advertised as at Luis's school.

## Conclusion

Secondary level Latina/o pre-service and intern teachers in the study made instructional pivots to integrate the primary language(s) of their Latina/o students into their content area instruction. They did so for various reasons, including providing access to content, engagement, and promoting biliteracy. Yet, they also faced several challenges in doing this work. The curriculum they used to deliver instruction did not provide the resources they needed, and the support from administration and mentor teachers was not provided in this effort either. Notwithstanding, the novice Latina/o teachers we interviewed were very resourceful in finding material online and leveraging the language support of others, as did Diana with her mother, or Karla pointing out cognates to her Latina/o students.

To reap the benefits of bilingualism as found by Bialystok (2011), Latina/o emergent bilinguals will need Latina/o teachers that have the training and tools necessary to support Latina/o students' primary language(s) beyond the elementary grade classroom. Latina/o Pre-service

teachers will need additional support in their courses to develop the type of bilingualism that includes the language of the disciplines, including the pedagogical Spanish competencies necessary to teach a variety of content areas (Aquino-Sterling, 2016). Programs that train Latina/o pre-service teachers to be bilingual teachers at the secondary level must consider the type of obstacles that Latina/o pre-service teachers face at their clinical site in integrating the primary language of students. Addressing these obstacles will ensure Latina/o pre-service teachers get a chance to implement and see the benefits of integrating the primary language of their Latina/o students into their content and subsequently give their students a chance to build academic bilingualism. These efforts to prepare teachers to leverage the linguistic and cultural capital of Latina/o students at the secondary level is critical to address the college opportunity gap. Bilingual teaching practices provide teachers with the tools to ensure Latina/o students are college ready.

## NOTES

1. English Medium classrooms are instructional contexts where the English language has been designated as the language of instruction. This means the teacher provides instruction in English and with materials that are written in English.

## REFERENCES

Agirdag, O. (2014). The literal cost of language assimilation for the children of immigration: the effects of bilingualism on labor market outcomes. In R. M. Callahan & P. C. Gándara (Eds.), *The bilingual advantage: Language, literacy and the US labor market* (pp. 160-181). Multilingual Matters.

Alladi, S., Bak, T. H., Shailaja, M., Gollahalli, D., Rajan, A., Surampudi, B., & Kaul, S. (2017). Bilingualism delays the onset of behavioral but not aphasic forms of frontaltotemporal dementia. *Neuropsychologia*, *99*, 207-212. https://doi.org/10.1016/j.neuropsychologia.2017.03.021

Aquino-Sterling, C. (2016). Responding to the call: Developing and assessing pedagogical Spanish in bilingual teacher education. *Bilingual Research Journal, 39*(1), 50–68. https://doi.org/10.1080/15235882.2016.1139519

Beyer, C. J., & Davis, E. A. (2009). Using educative curriculum materials to support preservice elementary teachers' curricular planning: A comparison between two different forms of support. *Curriculum Inquiry, 39*, 679-703. https://doi.org/10.1111/j.1467-873X.2009.00464.x

Boyle, A., August, D., Tabaku, L., Cole, S., & Simpson-Baird, A. (2015). *Dual language education programs: Current state policies and practices*. U.S. Department of Education Office of English Language Acquisition. https://ncela.ed.gov/files/rcd/TO20_DualLanguageRpt_508.pdf

Bialystok, E. (2011). Reshaping the mind: the benefits of bilingualism. *Canadian Journal of Experimental Psychology, 65*(4), 229-235. https://doi.org/10.1037/a0025406

Bialystok, E., Craik, F. I. M., Green, D. W., & Gollan, T. H. (2009). Bilingual minds. *Psychological Science in the Public Interest, 10*(3), 89-129. https://doi.org/10.1177/1529100610387084

Bravo, M. A., & Cervetti, G. N. (2014). Attending to the language and literacy needs of English Learners in science. *Equity and Excellence in Education, 47*(2), 230-245. https://doi.org/10.1080/10665684.2014.900418

California State Board of Education (2012). Summary report. *California State Seal of Biliteracy.*

Retrieved February 10, 2021, from https://www.cde.ca.gov/sp/el/er/sealofbiliteracy.asp.

Celic, C., & Seltzer, K. (2012). *Translanguaging: A CUNY-NYSIEB guide for educators*. The Graduate Center at The City University of New York. https://www.cuny-nysieb.org/wp-content/uploads/2016/04/Translanguaging-Guide-March-2013.pdf

Cervetti, G. N., Kulikowich, J. M. & Bravo, M. A. (2015). The effects of educative curriculum materials on teachers' use of instructional strategies for English Language Learners in science and on student learning. *Contemporary Educational Psychology 40*, 86-98. https://doi.org/10.1016/j.cedpsych.2014.10.005

de Jong, E. J. (2016). Two-way immersion for the next generation: Models, policies, and principles. *International Multilingual Research Journal*, *10*(1), 6-16. https://doi.org/10.1080/19313152.2016.1118667

de Jong, E. J., & Bearse, C. I. (2014). Dual language programs as a strand within a secondary school: Dilemmas of school organization and the TWI mission. *International Journal of Bilingual Education and Bilingualism*, *17*(1), 15-31. https://doi.org/10.1080/13670050.2012.725709

Díaz-Rico, L. T. (2017). *The crosscultural, language, and academic development handbook: A complete K12 reference guide*. Pearson.

Echevarria, J., Richards-Tutor, C., Canges, R., & Francis, D. (2011). Using the SIOP model to promote the acquisition of language and science concepts with English Learners. *Bilingual Research Journal, 34*, 334-351. https://doi.org/10.1080/15235882.2011.623600

Echevarria, J., Short, D., & Powers, K. (2006). School reform and standards-based education: A model for English-Language Learners. *The Journal of Educational Research, 99*(4), 195-211. https://doi.org/10.3200/JOER.99.4.195-211

Echevarria, J., Vogt, M., & Short, D. J. (2007). *Making content comprehensible for English Learners: The SIOP model (3rd ed.)*. Pearson.

Gándara, P. (2012) From González to Flores: A return to the Mexican room? In O. Santa Ana & C. Bustamante (Eds). *Arizona firestorm*. Roman & Littlefield Publishers.

Garcia, E. E. (2001). *Hispanic education in the United States: Raicies y alas*. Rowman & Littlefield Publishers.

García, O. (2009). *Bilingual education in the 21st century. A global perspective*. Wiley-Blackwell.

García, O., Flores, N., & Chu, H. (2011). Extending bilingualism in U.S. secondary education: New variations. *International Multilingual Research Journal, 5*(1), 1-18. https://doi.org/10.1080/19313152.2011.539486

García, O., Johnson, S. I., & Seltzer, K. (2017). *The translanguaging classroom: Leveraging student bilingualism for learning*. Caslon.

García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. Palgrave Macmillan.

Mazak, C. M., & Carroll, K. S. (Eds.). (2016). *Translanguaging in higher education: Beyond monolingual ideologies.* Multilingual Matters.

Menken, K., & Avni, S. (2017). Challenging linguistic purism in dual language bilingual education: A case study of Hebrew in a New York City public middle school. *Annual Review of Applied Linguistics, 37,* 185-202. https://doi.org/10.1017/S0267190517000149

Miles, M., Huberman, A., & Saldaña, J. (2013). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE.

Montone, C. L., & Loeb, M. I. (2000). Implementing two-way immersion programs in secondary

schools. The Center for Applied Linguistics. https://carla.umn.edu/immersion/acie/vol6/bridge-6(3).pdf

Pontier, R., & Gort, M. (2016). Coordinated translanguaging pedagogy as distributed cognition: A case study of two dual language bilingual education preschool coteachers' languaging practices during shared book readings. *International Multilingual Research Journal. 10*, 89-106. http://dx.doi.org/10.1080/19313152.2016.1150732

Paplikar, A., Mekala, S., Bak, T. H., Dharamkar, S., Alladi, S., & Kaul, S. (2018). Bilingualism and the severity of poststroke aphasia. *Aphasiology*, *33*(1), 58-72. https://doi.org/10.1080/02687038.2017.1423272

Ramírez, D. J., Yuen, S. D., Ramey, D. R., & Pasta, D. J. (1991). *Final report: Longitudinal study of structured-English immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority children*. National Clearinghouse for English Language Acquisition. https://ncela.ed.gov/files/rcd/BE017748/Longitudinal_Study_Executive_Summary.pdf

Rodríguez-Valls, F., Solsona-Puig, J., & Capdevila-Gutiérrez. (2017). Teaching social studies in Spanish in dual immersion middle schools: A biliterate approach to history. *Cogent Education, 4*(1), 1-12. https://doi.org/10.1080/2331186X.2017.1326202

Rumbaut, R. G. (2014). English plus: Exploring the socioeconomic benefits of bilingualism in Southern California. In R. M. Callahan & P. C. Gándara (Eds.), *The bilingual advantage: Language, literacy and the US labor market* (pp. 182-208). Multilingual Matters.

Yin, R. K. (2017). Case Study Research and Applications: Design and Methods. CA: SAGE Publications, Inc.