**Cultivating space for the language boomerang:
The interplay of two languages as academic resources**

MELINDA MARTIN-BELTRÁN
*University of Maryland*

ABSTRACT: *Grounded in sociocultural theory, this study uses an ecological approach to examine how student interactions within a dual-language school context may offer affordances for increased linguistic and conceptual understanding. Using qualitative analysis of student discourse, this paper focuses on data from recorded interactions between pairs of fifth-grade students engaged in writing activities (in English and Spanish). Findings demonstrated that the following key contextual factors cultivated a space for languaging (Swain, 2006), and thus enhanced conceptual understanding: 1) the interplay of two languages as academic tools; 2) the recognition of learners' expertise and distinct linguistic funds of knowledge; 3) opportunities for co-construction; and 4) student and teacher strategies that call attention to language. This study has implications for the education of language-minority students in English-medium classrooms and suggests that teachers should cultivate learning spaces that draw upon their students' other languages in order to promote a deeper analysis of English. This study urges future research to more closely consider reciprocal affordances for language learning among bilingual learners and seeks to bridge insight across the fields of second language acquisition and bilingualism.*

KEYWORDS: *Dual language education, peer interaction, language exchange, collaborative dialogue, teaching strategies for English language learners*

As our schools become more culturally and linguistically diverse and ever more interconnected with the global community, educators are called upon to prepare students to learn and interact with diverse peoples. Although language-minority students are often portrayed as a challenge for schools torn between issues of equity, accountability, assimilation and pluralism, an oppositional discourse has emerged in dual-immersion bilingual programs[1] in an attempt to reframe minority languages as resources to be developed within our public education system.

This paper documents classroom practices where the interaction of two languages and students from distinct communities of practice (Lave & Wenger, 1991) is actualized in public space and will examine how that interaction may enhance students' linguistic and conceptual understandings. Many questions remain unanswered about the language practices and peer interactions in dual-immersion schools that may offer opportunities for language learning. While several studies (Fitts, 2006; Hayes, 2005;

---

[1] The school site where this research took placed used the term "dual-immersion bilingual program" to describe their program. It should be noted that other terms such as two-way immersion and dual language are often used to describe similar programs (Howard, Sugarman, Christian, Lindholm-Leary, Rogers, 2007). What makes dual-immersion different from other forms of bilingual education in the US is that this model aims to integrate *minority-language speakers* and *majority-language speakers* in order to promote learning in two languages and positive opportunities for cross-cultural interaction.

Lee, Bonnet-Hill, Gillespie, 2008) have documented the challenges dual-immersion programs face as they try to create bilingual interactional spaces, this study focuses on moments when such spaces are successfully created and provides a window into the accomplishments of the bilingual learners.

## BACKGROUND LITERATURE

While much research has documented the success of dual-immersion programs with measures of high academic achievement (Alanis, 2000; Christian, Howard, & Loeb, 2000; de Jong, 2002; Lindholm-Leary, 2001; Thomas & Collier, 2002), there is less research about the everyday interactions between language-learners, which may lead to successful learning. As Hayes (2005) has shown, many of the studies have focused on dual-immersion program design (Hayes calls this the "recipe approach" p. 93), rather than examining the moment-to-moment processes of language learning at work in the school. Recent studies (Fitts, 2006; Hayes, 2005; Lee *et al.,* 2008) have found that programs often foster "parallel monolingualism" rather than bilingual proficiency, and they reveal the need to create bilingual interactional spaces. Further research is needed to understand how to create a bilingual interactional space that offers a rich context for language learning.

The findings from the present study corroborate findings from Angelova, Gunawardena, & Volk's (2006) study, and go beyond to more closely analyse student interactions as collaborative dialogue in which we can observe "microgenesis" (Vygotsky, 1978; Lantolf, 2000, or processes of language learning unfolding during the interactions. Although dual-immersion programs expect students to learn from one another, rarely have studies examined the processes students use to co-construct language expertise. This study addresses this gap in the research by looking more carefully at the nature of interaction and the possibilities for language learning in a school environment that frames two languages as academic resources.

Within studies of bilingualism (Heller, 1999; Romaine, 1996; Valdés, 2003; Wei, 2000; Zentella, 1997), scholars recognise the complexity of multilingual speakers who use a multitude of varieties that are not separate and discrete; however, this is rarely recognised within SLA (second language acquisition) research (for exceptions see Harris, 1999; Leung, Harris, & Rampton, 1997). The principles of parallel monolingualism (Fitts, 2006), rather than simultaneous bilingualism, have led to a focus on the "second-language learner" as opposed to the "emergent bilingual" who participates in bilingual communities of practice within and beyond the school. The present study responds to Valdés's (2005) call for a reconceptualization and expansion of the field of SLA by including bilingual, heritage language students (for whom the concepts such as L1, L2, and native speaker are problematic), and by examining language learning in an educational context that involves several types of language development.

## CONCEPTUAL FRAMEWORK

Second Language Acquisition (SLA) research, complemented by a Vygotskian sociocultural theoretical perspective, informs the conceptual framework of this study.

One of the most comprehensive theoretical models for second language acquisition (particularly from a cognitive perspective, which has played an important role informing dual-immersion program design) is the Input-Interaction-Output (IIO) model, which has been developed across several theoretical and empirical studies (Gass, 1997, 1997; Long, 1996; Mackey, 2007). The literature falling under this theoretical model explains that interaction may lead to language learning through negotiation of meaning; modified, comprehensible input; and opportunities for learners to produce language and test new output hypotheses (Gass, 1997; Hatch, 1992; Long, 1996; Long & Porter, 1985; Mackey, 2007; Mackey, Gass, & McDonough, 2000; Pica, 1994; Swain, 1985; Swain & Lapkin, 1998). Several empirical studies in laboratory and classroom settings (see review in Mackey, 2007; Keck, Iberri-Shea, Tracy-Ventura & Wa-Mbaleka, 2006) have found a positive relationship between opportunities for learners to interact and learners' language development.

My study's focus on interaction was informed by this SLA literature, yet employed a sociocultural conceptual framework that shifts the focus from the individual learner to the social activity of learning, particularly in dialogic interaction. Building upon earlier studies in Second Language Acquisition that have employed a sociocultural framework (Anton & DiCamillla, 1997; Donato & Lantolf, 1990; Lantolf, 2000; Foster & Ohta 2005; Swain, 2000; Swain & Lapkin, 1998; Swain, Brooks & Tocalli-Beller, 2002; Tocalli-Beller & Swain, 2007). this study examines socially mediated learning when learners use language as a tool for mediation and as an object of analysis. Swain, Brooks and Tocalli-Beller (2002) have argued that a microgenetic analysis (analysis of moment-to-moment communication in interactions) will help us to better understand how learners can create a learning zone and opportunities for language acquisition. This sociocultural approach, influenced by the work of Vygotsky (1978),  provides a lens for this study to understand micro-processes of language learning in action that have often gone unexamined within dual-immersion classrooms.

I draw from Swain's (2000) work about collaborative dialogue as an important window into how learners work together to solve linguistic problems and co-construct knowledge about language. Based on this work and others (Foster & Ohta, 2005; García Mayo, 2002; Lapkin, Swain, & Smith, 2002; Mackey, 2007; Swain & Lapkin, 2002), I use the *language related episode* (LRE) as a unit of analysis to investigate discourse that may afford language learning. Swain and Lapkin (1998) define a language related episode (LRE) as "any part of a dialogue where the students talk about the language they are producing, question their language use, or correct themselves or others" (p. 326).

Building upon this work, Swain (2006) has suggested the term *languaging* to describe the way learners use language to mediate cognitively complex activities during dialogic interaction. Swain explains that when learners are engaged in languaging "we can observe learners operating on linguistic data and coming to an understanding of previously less well understood material" (2006, p. 98). In this study, I found the concept of languaging to be helpful to describe the way that young learners dialogued and negotiated back and forth about language choices (often using cross-linguistic comparisons), which led them to a deeper understanding of languages. Swain and Deters (2007) describe languaging as "a crucial mediating psychological and cultural

activity…[when]…learners articulate and transform their thinking into an artifactual form, and in doing so, make it available as a source of further reflection" (Swain & Deters, 2007, p. 822).

To examine the classroom context that supports languaging, this study also draws upon the work of van Lier (2001), who suggests an ecological perspective which focuses on the relationships among learners and between learners and the environment. I use van Lier's term affordance (instead of the SLA term "input"), which he describes as opportunities for interaction between learners and their environment. An affordance depends on what people do with the interaction to afford further action. I use an ecological approach in this study to examine the emergence of learning, the location of learning opportunities, and the pedagogical value of interactional contexts and processes at work in the classroom.


## SCHOOL CONTEXT

This study took place in *Escuela Unida*[2], a dual-immersion bilingual school located in an agricultural region on the central coast of California. As a public charter school, *Escuela Unida* brought together students who might otherwise have little contact with each other due to housing segregation within the school district (that followed linguistic, ethnic and socioeconomic lines). The student body was 90% Latino and included both English and Spanish learners who fell on both extremes of the achievement gap. 75% of the student body consisted of English language learners and 87% received reduced or free lunch. Academically, the school used a 90/10 program where students began with 90% of their instruction in Spanish in kindergarten and reached a 50/50 balance in Spanish and English instruction by fifth grade.

For this study, I chose to focus on one group of 30 fifth-grade students for several reasons: 1) the teachers expressed interest and welcomed me into their classroom; 2) the curriculum and instruction was divided evenly between Spanish and English, allowing for equivalent observation time; 3) at their developmental stage (ages 10-12), these students were able to talk about abstract concepts involved in language analysis; 4) most students had been in the bilingual program for several years; and 5) this particular group of children represented a wide range of language experiences (from emergent to proficient bilinguals). In this class, there were three newcomers from Mexico (who arrived in the US in 4th and 5th grade), twenty bilingual children who spoke mostly Spanish and varying degrees of English at home, and seven children who came from homes where they used primarily English. This class had three teachers – two Spanish-model teachers in the morning and an English-model teacher in the afternoon. All three teachers had more than seven years of experience and demonstrated great commitment to the bilingual program and enthusiasm in their teaching. In addition, they were cooperative partners who were open to reflecting on their teaching and discussing new ideas for their classroom.

---

[2] All identifying information and names have been replaced with pseudonyms to ensure confidentiality of all participants.

**RESEARCH METHODS**

**Data collection**

Drawing on a theoretical perspective that views language and literacy development as social practices, my data collection included participant observation to capture a detailed picture of focal students' spontaneous, social, interactional practices throughout their school day, and a focused analysis of student speech during structured, interactive activities in the classroom. Following Erickson's (1998) recommendations for interpretive inquiry and participant observation, my fieldwork included intensive long-term participation in the school, careful recording and documentation (field notes, records, memos, student work, digital audio and video recordings) and an analytical reflection about the documentary record during the data collection process. I visited the school two to three times a week over the academic year (August-June). In addition to classroom, lunchtime, and recess observations, I observed school meetings, parent-teacher conferences, after-school programs, and district school board meetings. During my school visits I took on multiple roles as observer, participant, assistant teacher, small group leader and even substitute teacher. While the study was naturalistic and was not intended to be an intervention, the teachers and I often discussed teaching and learning challenges and I worked together with them to brainstorm collaborative activities. To triangulate my observations, I interviewed teachers, parents, the principal and students. The students also completed three surveys throughout the year to capture language experiences and social networks within and outside of school. During class activities that required peer interaction, I placed audio recorders on students' desks supplemented by a video camera in the corner of the room.

**Data analysis and data selection**

This paper highlights data selected from a larger study (Martin-Beltran, 2006) that compared contexts and students' experiences throughout the school year to examine two-way language learning affordance from an ecological approach (van Lier, 2000). I began initial analysis by reading through field notes and transcriptions several times to identify activities when students and teachers called attention to language and offered opportunities for languaging (Swain, 2006), coded as LREs (Swain & Lapkin, 1998). I found many of the activities that provoked LREs included the creation and revision of written text, and for closer analysis, I focused specifically on writing activities. My focus on writing activities was guided by the theoretical claim that writing allows learners time to monitor (Krashen, 1985) and reflect upon their language production and may be a tool for co-construction of knowledge (Wells, 1999; Haneda & Wells, 2000). During my analysis of transcripts of students involved in writing activities, LREs were identified when students explicitly reflected on their language usage, asked questions about language, or experimented with new language forms. Using a sociocultural lens, I analyse the nature of LREs and opportunities for co-construction of language knowledge (or microgenesis).

For the purpose of this analysis, I have chosen to highlight transcripts from two writing activities. The first three excerpts are from a joint letter writing activity, and the fourth excerpt is from a creative writing activity. During the first, joint writing activity analysed for this paper, students co-wrote two letters with their partner, one

for a Spanish-speaking friend or relative, and the other for an English-speaking friend or relative (during Spanish instructional time and during English instructional time, respectively). The assignment was designed to give the students an authentic purpose and audience for their writing in both languages. In order to involve both students, the student who chose the recipient of the letter was given guidelines to introduce his/her classmate (who may not know the recipient of the letter) in the text of the letter. Before the students began writing their letters, they interviewed each other to brainstorm information to include in the letters. To further encourage equitable collaboration, students were required to switch roles as the writer (that is, interpreted as being in control of the pencil) every couple of sentences and were encouraged to "write out loud" so their writing partner could hear what they were writing during the composition process. After the letter-writing activity in Spanish and English, students completed self-evaluation rubrics about collaboration, which was an additional guide for the students to think about what collaboration looks like in action.

The second writing activity was less structured because it took place during "literacy centres" when the students were expected to work in small groups while the teacher was working with her own small group on guided reading. At one centre, students were writing fictional narratives (individually) and were encouraged by the teacher to ask their peers for help with writing and revising.

The excerpts below were chosen because they are representative of the content and kind of speech from the larger sample of LREs found throughout student interactions. Furthermore, these excerpts offered several examples of ways that students participate in languaging (Swain, 2006) over several turns of talk within a single, interactional space.

## Participants

For this article, I have chosen excerpts from 8 students (4 dyads) who represent a range of language proficiencies and literacy levels (as seen in Appendix A: Table 2). Table 2 provides a summary of basic language proficiency descriptors of all of the students highlighted in the excerpts below. I offer this chart to reflect the kind of information that was available to the teacher and was used to inform instructional decisions; however, it is important to recognise the limitations of such measures to capture the situated nature of language competency. In previous work (see Martin-Beltran, 2006; Martin-Beltran, 2007), I have given more in depth descriptions of the student participants and their relationships, but because neither the relationships between these students nor their individual characteristics are foregrounded in the analysis here, background information about these student will be limited.

## FINDINGS

This study found several examples of students engaged in *languaging* as they asked questions about two languages and used "speaking and writing to mediate cognitively complex activities" (Swain & Deters, 2007, p.822), thus enhancing metalinguistic and conceptual understanding. The examples below demonstrate the linguistic and meta-cognitive accomplishments of the students and illustrate the ways that four factors, together, created a rich context for languaging. In analysing the pedagogical value of

interactional contexts, I found that several key contextual factors cultivated a space for enhanced language learning and expanded conceptual understanding. Although these factors are overlapping and interdependent within this discourse space, for the purposes of analysis I have delineated four factors (exhibited in the excerpts below) which will be discussed as: 1) the interplay of two languages as academic tools; 2) the recognition of learners' distinct expertise and linguistic funds of knowledge (Moll, Amanti, Neff, & González, 1992; Smith, 2001); 3) opportunities for co-construction of knowledge; and 4) student and teacher strategies that called attention to language. Factor 1 describes the ways that two languages are available simultaneously in classroom activities and used as tools for mediation and analysis in cross-linguistic comparisons. Factor 2 refers to the ways that students and teachers recognise and draw upon students' different kinds of expertise and funds of knowledge that they bring from their own distinct communities of practice (Lave & Wenger, 1991). Factor 3 captures the nature of the activities that allow for collaboration, participation from both partners, and co-construction of language knowledge. Finally, factor 4 includes strategies that both students and teachers use that inspire LREs or enhanced analysis of language.

**Excerpt 1: Asking questions about two languages inspires boomerang word analysis**

Excerpt 1 was part of a conversation between Daniel and Javier who were discussing Javier's most frightening memory to share in their letter. Javier told Daniel that he didn't have nightmares after his scary experience, and Daniel wrote this in the letter. As Daniel wrote the word "nightmares" and read it out loud, he and Javier began to talk spontaneously about the meaning and structure of the word.

> {English translations[3] in italics and curly brackets when needed}
>   1. **Javier:** When he looked back…there was nobody there
>
>   2. **Daniel:** There was nobody there [Daniel talks slowly as he is writing]
>
>   3. **Javier:** He thought it was the grim reaper @@
>
>   4.  **Daniel:**  @@ 'He thought it…. was the grim reaper.' [writing what Javier said] Did you have nightmares?
>
>   5. **Javier:** No
>
>   6. **Daniel**: 'But he didn't have **nightmares**' [Daniel writes, reading out loud] ….Why do they call them night mares if they're not - **night mirrors**?
>
>   7. **Teacher:** That's a good question!
>
>   8. **Javier:** That's a scientist ::[inaudible overlap]…mirror::
>
>   9. **Daniel:** ::Yeah, I've been thinking since like 5 years old… mirrors
>
>   10. **Teacher:**  Do you think they're like a mirror of what you've seen all day?

---

[3] See Appendix B for transcription conventions.

11. **Daniel:** Yeah…
    Once I watched a movie and… there was this garden and this lady wanted to save the kids… the movie was called 'The Haunting'. In the garden she saw somebody hanging from the top, the kid… and she was like [drops his jaw, slaps his hands on cheeks] @@

12. **Javier :** @@

13. **Daniel**: And then all the other people were like ahh! … And when I went to sleep I had a nightmare.  You know how flashing stuff like… scares you?

14. **Javier:** Oh flashing like… flashing through your eyes?

15. **Daniel:** Like shoom, shoom, that happened to me and I was like sweating!

16. **Javier:** Ok, My turn my turn!
    One time, at night it was the middle of the woods or something

17. **Daniel:** Oooooh [pretending to be scared]

18. **Javier:** I was hiding.  Here's like the tree, I was hiding like that [with the pencil demonstration and the eraser behind the tree]
    He was floating like that…. I turned back , he said boo! I ran but I couldn't run that fast because it was an escalator.  Then some dead people rised up from the ground and I waked up… It was like one in the morning and I could not sleep any more!  It was a bad nightmare!

19. **Teacher:** That sounds scary. So it's called nightmare in English.  How do you say it in Spanish?

20. **Daniel:** Un neetmare [trying to use Spanish phonology]

21. **Javier:** No no…. "Sueño mal"     {*bad dream*}  or something like that… or pesa… oh yeah, ::"pesadilla":: [overlap with Daniel]

22. **Daniel**: Pensamiento?    {*thought*}

23. **Javier**: No,  pesadilla     {*nightmare*}

24. **Daniel:** Oh yeah, "pesos"… Oh I know "pesa" like your "día" was "pesado"
    {Oh yeah "*weights*" Oh I know like "*to weigh*" like your "*day*" was "*hard/heavy*"}
25. **Javier:** "Dia" like hard day, "pesado dia" like "pesa…dia"
    {"*Day*" like hard day, "*heavy day*" like *nightmare*}

26. **Daniel**: Oh! …I think I know what 'mare' means, it's like a schmare… is like something scary that doesn't really happen, but you believe in it!

27. Both:  @@@ [they both laugh]

28. **Daniel**: Something we both have in common? [reading the interview template]

29. **Javier:** We both have scary dreams.

30. Both:  @@@ [they both laugh]

### The interplay of two languages allows students to launch linguistic creativity

This excerpt clearly demonstrates that students were able to draw upon sociolinguistic tools in both Spanish and English to solve linguistic problems and to expand their conceptual understanding. Their back and forth analysis of the word "nightmare" in English and Spanish exemplifies the way that students in this context engaged in throwing a metaphorical *language boomerang*. Like a boomerang, their language was a tool that was launched into a new space in order to return to the senders with new insight or the reward of their hunt. That is, they began their conceptual analysis in language A (English), then they threw out a metalinguistic "boomerang" into the realm of language B (Spanish), transferring knowledge from one language to analyse another, and finally the metalinguistic boomerang returned to language A, bringing back new insight to English and possibly a deeper level of understanding in both languages.

For example, the boys began their analysis of the word "nightmare" in English (line 6-9) which they extended in their lively descriptions of their own experiences with nightmares (lines 11-18). When the teacher asked how to say "nightmare" in Spanish (line 19), the boys collaboratively engaged in word analysis and transformation of the word "*pesadilla*" (line 20-26). They deconstructed the new word and analysed each part of the word to further understand its meaning. The back and forth language play using two languages provided an important scaffolding opportunity to understand new vocabulary. In this case, both languages became *objects for analysis* and *tools for mediation* during the interaction (Vygotsky, 1978). The boys used both Spanish and English as mediational tools as they transformed the word parts "*pesado*" (heavy) and "*día*" (day) into the phrase "hard day" (lines 23-25). Daniel verbalised his analysis and Javier agreed and extended this analysis, which seemed to bring about further revelation for how word meanings and origins may fit together. Finally, Daniel returned to his original question about the English word nightmare and he hypothesized a new meaning for the word part "mare" (or "schmare") as "something scary that doesn't really happen, but you believe in it" (line 26). Javier and Daniel invented their own etymology of this word which was not exactly accurate, but more importantly, they went through a transformative analysis that inspired further thinking about language and appropriation of new co-constructed knowledge.

This interaction and interplay between two languages also offered a unique space for linguistic creativity. In Javier and Daniel's interaction, one can observe how the students used "texts as thinking devices and responded to them in such a way that new meanings were generated" (Wertsch, 1998, p.115). For example, when they played with the words nightmare and *pesadilla*, not only did they generate new meanings for word roots, they also generated a new definition for their invented word "schmare".

### Recognition of learners' distinct linguistic funds of knowledge

Both partners were afforded the opportunity to bring their own distinct linguistic funds of knowledge (Moll *et al.,* 1992) to this interaction, which they combined to generate new understanding (which was probably greater than what they would have accomplished individually). Daniel brought his deep understanding and curiosity about English, when he began to question the etymology of the word "nightmare". He demonstrated metalinguistic understanding as he tried to extend cognate rules

(phonological transfer patterns) to generate new lexicon in Spanish (line 20). Daniel drew upon his prior language knowledge of Spanish phonology and tried to apply these rules (albeit incorrectly) to a new context to create new knowledge. His partner, Javier, drew upon his own linguistic funds of knowledge (Moll *et al.,* 1992) as a dominant Spanish speaker and contributed to this construction of knowledge by providing authentic Spanish alternatives. Javier demonstrated his expertise by correcting Daniel and finally producing the precise word (lines 21-25). Without Javier's expertise, Daniel's word choice may have been limited, but instead, Javier provided scaffolding to expand Daniel's vocabulary. Javier offered the new word "*pesadilla*" embedded in a meaningful context for Daniel, thus increasing the comprehensibility of this language. Through this interaction, they shared expertise and their knowledge was co-constructed as one interlocutor built off of the other.

### Opportunities for co-construction

Daniel and Javier's back and forth storytelling and animated discussion illustrated many instances of such co-constructions as defined by Foster & Ohta (2005). Foster & Ohta (2005) define co-construction as "joint creation of an utterance, whether one person completes what another has begun, or whether various people chime in to create an utterance. Co-constructions are seen as allowing learners to participate in forming utterances that they cannot complete individually, building language skills in the process" (p. 420).

In this example, Daniel and Javier echoed and built upon each other's previous statements as new ideas emerged, developed and changed. What began with Daniel's English expertise analysing the word "nightmare" became more complex when Javier contributed his Spanish expertise with the word "*pesadilla*". This expertise was co-constructed as both of them contributed to the analysis of this Spanish word. Both Javier and Daniel took directions from each other, they contributed jointly to the composition, and they engaged with each other's ideas showing high levels of cohesion (repeating utterances and extending upon each other's utterances).

This excerpt also highlighted the social activity of learning through dialogic interaction. The playful nature of the dialogue, evidenced by laughter, overlapping speech, and ludic talk (Cook, 2000) seemed to encourage languaging (Tocalli-Beller & Swain, 2007). A sense of solidarity framed their interaction, as evidenced in the final lines of the transcript when they recognised they shared common experiences and perspectives ("we both have scary dreams", lines 21-32).

### Student and teacher strategies that called attention to language

It is clear from this interaction that the students and teacher were able to create a space to play with language and ask questions about language. The boys called attention to language when Daniel asked a rhetorical question about language (line 6). This practice of asking questions about language was often observed in the classrooms where teachers and students were encouraged to be curious about words and differences between languages. The teacher advanced this curiosity by asking more questions (line 7 and line 19). Javier affirmed that Daniel was acting like a "scientist", who asks good questions – a phrase often repeated by their teachers (line 8).

The teacher encouraged their questions about language (line 7) and asked her own questions that inspired further dialogue (line 10). She became involved in the language play and encouraged the students to expand and extend their word analysis across language boundaries. Without the teacher's question comparing English and Spanish (see line 19), it is unlikely these students would have reached this level of cross-linguistic word analysis on their own. The teacher's scaffolding and inquiry about the comparison of the two languages opened further opportunities for metalinguistic awareness and co-construction of language knowledge.

**Excerpt 2: Two languages expose and bridge reciprocal gaps in learners' knowledge**

In the excerpt below, Heather was describing a frightening moment when she and her friend almost fell out of a tree. Iliana acted as an active listener as she transposed this experience to written form for the letter to her cousin.

| **Original Utterance** | ***English Gloss* (when needed)**<br>[actions and comments in brackets] |
|---|---|
| 1.  **Heather:** Yo estaba como diez pies del …suelo | *I was like 10 feet from… the ground*<br>[She lifts her arm to show height] |
| 2.  "and" una cosa que se cayó en su lado | *"and" a thing fell by her side*<br>[pantomimes a falling branch] |
| 3.  y …yo estaba … "leaning?" | *and… I was …. "leaning?"* |
| 4.  **Iliana:** ¿Qué? | *What?* |
| 5.  **Heather:** Leaning?... | |
| 6.  **Iliana:** [look of confusion from Iliana] | |
| 7.  **Heather:** Como así<br>"I'm leaning" en mi brazo | *Like this*<br> [showing movement by leaning over her chair]<br>*"I'm leaning" on my arm* |
| 8.  **Iliana:** ¿inclinada? | *Inclined/ leaning* |
| 9.  **Heather:**: …estaba inclinada en una cosita del árbol como así | *…I was leaning on a little thing from the tree like this*<br>[leaning over on chair] |
| 10.  y inmediatamente se quebró esta cosita y fue como así en el árbol y ya mero me caí! | *and immediately it broke, this little thing, and it was like this on the tree and I almost fell!*<br>[pretending to fall] |
| 11.  **H& I**: @@@ | [both girls laugh] |
| 12.  **Heather:** Estaba como así en el árbol! | *I was like this in the tree!*<br>[She shows herself hanging on, leaning over her chair] |
| 13.  **Iliana:** A ver… | *Let's see…*        (pause 12 seconds)<br>[She puts the pencil to her mouth as she is thinking,  then she begins to write out loud] |
| 14.  'Ella estaba con su amiga en un árbol cuando una' … este… ¿una parte? | *She was with her friend in a tree when a… um… a part?* [with rising intonation] |
| 15.  **Heather:** Un pedazo del árbol se cayó y | *A piece of the tree fell and she* |

|  |  |
|---|---|
| ya mero se cayó :: al piso…@@...al suelo:: | *almost fell to the floor [laugh] … to the ground* |
| 16. **Iliana**: ::una parte del árbol se cayó:: | *…a part of the tree fell* [she speaks softly out loud what she writes] |
| 17. **Heather**::: It's so confusing!:: [she whispers under her breath, frustrated] | |
| 18. **Teacher:** What's so confusing? | |
| 19. **Heather:** How like outside it's different than inside on the floor…"piso or suelo". Like floor and dirt.  We don't say that, we say ground and ground or floor and floor :: or dirt or no uh :: | |
| 20. **Iliana:** Ok, que les parece? | *Ok, how does this sound to you?* [She announces and reads what she has written] |
| 21. 'Ella estaba con su amiga en un árbol cundo una parte del árbol se quebró y estban apunto de caerse' | *She was with her friend in a tree when a part of the tree broke and they were just at the point of falling* |
| 22. **Heather:** Sí, está bien | *Yes that's good* |

### The interplay of two languages

Different from a monolingual instructional space, this student interaction is a concrete example of a bilingual interactional space (Lee *et al.,* 2008), where individual speakers use two languages within one situation to accomplish a task. Heather and Iliana discussed and repaired lexicon and syntax and created simultaneous opportunities for language learning in both Spanish and in English (even though this activity took place during Spanish instructional time).

By repeating the word "leaning" in English three times (lines 3-7) and contextualizing this word within Iliana's dominant language, Heather provided comprehensible input in English for Iliana while asking for help in Spanish. Although a monolingual analysis might focus on the gap in Heather's Spanish lexicon, a two-way analysis reveals additional opportunities for English learning, Iliana's target language. In this case, Heather's struggle with language created an unexpected, unplanned and often unacknowledged opportunity for Iliana to learn a wider range of English vocabulary. In this moment when both students were struggling and negotiating for meaning, both students were also potentially developing their respective target languages.

As Heather was re-telling her story (line 15), she also used two languages as metacognitive tools to think through word choice and consider different contexts in which to use and distinguish the words for "ground" and "floor" across her two languages. Although Heather's linguistic confusion was left unresolved, this LRE afforded Heather an opportunity to think metalinguistically as she verbalised the usage rules for floor/ground by comparing Spanish and English. This example reveals how comparisons across two languages offered learners additional affordances to engage in metalinguistic and metacognitive analysis.

### *Recognition of learners' expertise and distinct linguistic funds of knowledge*

While Heather contributed her academic capital and past experience to classroom writing activities, she also depended on her newcomer partner, Iliana, to co-construct the text and often take the lead in composing in Spanish. There were several instances in which Iliana drew upon her funds of knowledge in Spanish as she reformulated Heather's story by generating new lexicon (lines 8, 14-16) and repairing syntax (line 21). Iliana also contributed her understanding of academic register when she transformed Heather's colloquial, informal phrase "*ya mero*" (line 10, 15) to a more formal register, "*estaban a punto de caerse*" (line 21). I observed each student take on the role as novice and expert at different points throughout these assignments, especially when comparing their letter writing across Spanish and English. Recognition of peer expertise was also enacted in the co-construction of the text, which is discussed below.

### *Opportunities for co-construction*

Iliana and Heather's interaction showed evidence of co-construction (Foster & Ohta, 2005) as they both participated in forming utterances (often asking for help mid-sentence and completing each other's sentences) and built language skills in the process. For example, when Iliana offered a lexical suggestion (*inclinada*), Heather appropriated this word to continue her next sentence (line 9). This evidence of uptake (or use and incorporation of the new vocabulary) is considered an important step toward language development (Mackey, Oliver & Leeman, 2003; Oliver, 2000). Iliana's questioning elicited lexical suggestions from Heather, who offered synonyms (line 14-15). Although Iliana did not take up Heather's suggestion, she did incorporate the rest of Heather's sentence (beginning with "*se cayó*" in line 15) – demonstrating the ways they were co-constructing this text. Together they created increased language learning affordances in both Spanish and English.

### *Student and teacher strategies that called attention to language*

When Heather encountered a lexical dilemma during her storytelling, she paused and inserted the word in English (the non-target language) in a rising intonation to signal questioning and a request for help from her partner (line 3-5). Using English (her dominant language) gave her a way to continue the story, yet Iliana signaled that she did not understand. When Iliana did not immediately translate the English word, Heather was compelled to use other strategies (such as gesture and physical demonstration) to communicate her ideas and elucidate the meaning of the unfamiliar word to Iliana. While demonstrating the action, Heather contextualized the English word in a Spanish sentence ("I'm leaning *en mi brazo*"), code-switching coherently and adapting a common teacher strategy to explain a new word by using that word in a sentence. As Iliana began to read aloud what she had written in order to clarify meaning and ask for approval from her co-writer, she echoed Heather's earlier strategy to initiate an LRE – rising intonation to signal a question and a request for help – as she searched for a more specific, academic word to replace "*una cosita*", or "a little thing" (line 14).

The teacher played a key role in this interaction when she noticed Heather's remark and she encouraged Heather's verbal problem-solving process by asking, "What's so confusing?" The teacher's questioning extended Heather's metacognitive thinking and encouraged further comparison across two languages (although this strategy may have

been more fruitful had the teacher responded with further comparisons or questions that were left unanswered here).

**Excerpt 3: Using two languages to interpret word choice: What would you say to your grandfather?**

This excerpt comes from a conversation when Ignacio and Ruben were writing about Ruben's funniest moment in a letter to Ignacio's grandfather. As Ignacio was reading aloud what he had written to Ruben about his funniest moment, they engaged in an LRE about word appropriateness.

| **Original Utterance** | **English Gloss (when needed)** |
|---|---|
| 1. **Ignacio:** 'La cosa mas chistosa que pasó fue cuando el hermano de mi amigo se echó un gas @@ en la cara de otro niño' @@ | '*The funniest thing that happened was when my brother's friend passed gas @@ in another boy's face' @@* [whispering and giggling, he reads what he has written] |
| 2. **Ruben:** ¿Un gas??  @@@ | *A* gas?? @@@ |
| 3. **Ignacio:** @@@ He did like this [fart noise] | |
| 4. **Ruben:** It <u>is</u> gas @@ but he's gonna think it's gas of CAR!  Does he know the <u>other</u> word… for gas? | |
| 5. **Ignacio:** @@@ Yes, pero, que digo …[whispers]  pedo? | Yes, *but, what should I say…* [whispers] *fart?* |
| 6. **Ruben:** @@ ¿sabe esta palabra…tu abuelo? | *Does your grandpa know this word?* |
| 7. **Ignacio:** Claro @@ pero… ¡pero es grosero! | *Of course@@ but… but it's rude!* |
| 8. **Ruben:** ¡Eres un niño grosero! | *You're a rude boy!* |
| 9. **Both:** @@@ | [shared laughter] |
| 10. **Ignacio:** My grandpa knows @@ I make funny noises @@ | |

*The interplay of two languages*
In this dialogue, two languages allowed for analysis of multiple meanings and evaluation of social relationships. For example, Ruben used English to explain that there might be confusion because the word "gas" has multiple meanings. Ruben gave evidence for another meaning of the word "gas" by placing it in another context in English (line 4, "gas of car"). Ruben played upon Ignacio's descriptive word "*grosero*" to come back to describe Ignacio as a rude user of the word ("*¡Eres un niño grosero!*" line 8), and Ignacio responded in English, thus demonstrating his understanding and his flexibility in two languages. Similar to the other excerpts, this was another case of dialogic interaction when the students drew upon their two languages as tools to analyse language as an abstract object.

*Recognition of learners' expertise and distinct linguistic funds of knowledge*
In this interaction, both participants shared expertise in Spanish and English and they seized the opportunity to utilise both kinds of linguistic funds of knowledge to analyse

their word choice. The students were allowed to draw freely from both of their languages and they drew upon their pragmatic and cultural knowledge learned in their multiple communities of practice, which went beyond their knowledge of linguistic systems or *la langue* (Agar, 1994; Saussure, 1959). For example, Ignacio demonstrated his understanding that "knowing" a word goes beyond knowing it's meaning, but also knowing when it might be considered rude or inappropriate (line 7). He explained that the dilemma was not simply whether his grandfather knew the word, but whether the word would be the right word to use in this context since this word would be categorised as "grosero" (rude). The boys demonstrated their knowledge that "*pedo*" (fart) was taboo in their school setting and would be considered impolite with some older adults, like the teacher or Ignacio's grandfather.

### Opportunities for co-construction
This interaction offered opportunities for co-construction as the students asked each other questions in order to evaluate and eventually transform the text together. For example, Ruben asked his partner about the letter recipient's familiarity with the "other" word (line 4). Together, they discussed the appropriateness and perception of their audience. In the end (line 10), Ignacio pointed out that his grandfather was familiar with him and might allow for a more intimate or informal kind of language that is different from school settings. As a result of this LRE, they erased the word "*gas*" and changed it to "*pedo*". This change also reflected their willingness to co-construct the text.

Similar to Excerpt 1, this excerpt also highlighted the social activity of learning as the two boys were highly engaged in writing and revising. The playful nature of their dialogue was evidenced by laughter and ludic talk (Cook, 2000), and it seemed to encourage flexibility and further opportunities for the co-construction language.

### Student and teacher strategies that called attention to language
In this excerpt, the act of re-reading what another partner had written called attention to the language. When Ignacio began reading the text aloud, his partner understood this as text in dialogue and consequently engaged further in this dialogue to question the language used. This act of co-authoring or sharing responsibility for both writing and re-reading the text cultivated a space for discussion and attention to language.

Their disagreement over word choice presented an opportunity to analyse the significance of words and to consider the implications of their language for social relationships with their potential readers.

### Excerpt 4: Translation is not so simple

The following excerpt was recorded during literacy centre time in the Spanish room while the students were sitting in small groups and working on individual narratives. The teacher encouraged them to ask peers in their small groups for help before interrupting with her guided reading group. During this activity Ryan, a dominant English speaker, leaned over to his partner, Mario, a dominant Spanish speaker, to ask for assistance with a phrase in his writing.

| **Original Utterance** | **English Gloss (when needed)** |
|---|---|
| 1. **Ryan:** ¿Cómo se dice "I left"? | *How do you say "I left"?* |
| 2. **Mario:** "You left? I left?" Um… | You left? I left? Um… |
| 3. **"Yo me fui"** | *"I went away"* |
| 4. **Ryan:** No, como…"I left my spaceship "? | *No, like... "I left my spaceship"* |
| 5. **Mario:** Hmm? Oh, you can say : | Hmm? Oh, you can say: |
| 6. 'Yo dejé mi nave espacial' | *'I left my spaceship'* <br> The Spanish verb 'dejar'" has multiple meanings and in this case Mario is using <br> 'dejar'" to suggest to "leave behind", as a transitive verb requiring a direct object |
| 7. **Ryan:** No, I know… I mean like when you say, **'I left the school or uh… I left my house.'** D'ya know what I mean? | |
| 8. **Mario:** Ohhhh! @@ 'Yo, salí del nave espacial' | Ohhh! (laughs) *'I went out of the spaceship'* |
| 9. **Ryan:** Oh yeah, that's right… | …[he pauses and writes this down in his story] |

### *The interplay of two languages*

LREs involving lexicon were the most common episodes observed throughout the school day, when students often solicited help from one another with quick confirmation checks or "How do you say x?". Students were often seeking a single word substitution, but even apparently simple word-to-word translations often led to further discussion, other linguistic problems, or reformulation of entire sentences.

In the example above, several attempts at translation revealed the complexities and multiple meanings of a single word. Although the students did not explicitly discuss the multiple meanings of words in Spanish and English, they acknowledged these multiple meanings as they evaluated the appropriateness of a word for a particular context. In line 3, Ryan realised that the English verb "to leave" has several meanings depending on how this word is placed in context. In response to his own and his peer's confusion, he attempted to provide that context. In line 4, Mario interpreted Ryan's contextualised meaning of the verb to indicate that he was leaving behind his spaceship as though it were a direct object. In line 5, Ryan demonstrated his understanding of the multiple meanings in both languages when he attempted to clarify his particular meaning using analogy. This manipulation of language went beyond literal translation, as this interaction also offered an opportunity for both students to enhance conceptual understanding and demonstrate mental flexibility.

They drew upon the two languages as tools to clarify ambiguities within a single language. Comparing two languages offered the students new insight into subtleties captured by one language and expressed differently in another language. The students drew upon resources from one language to elaborate, elucidate and refine word choice in another language.

***Recognition of learners' expertise and distinct linguistic funds of knowledge***
In this example, Ryan recognised Mario's more advanced expertise in Spanish when he turned to his peer for help with his story. Mario seemed to be glad to help as he negotiated meaning with Ryan across several turns. While Ryan exposed a gap in his own linguistic knowledge, he also demonstrated his understanding of the Spanish words that Mario offered. Ryan became more than a passive recipient of language when he questioned Mario's word choice and actively sought out other alternatives. Instead of simply copying Mario's suggested word into his story, Ryan expressed his own understanding (line 5, "I know…I mean…"), and yet continued to ask his partner for more help. They were willing to work together to solve this linguistic problem.

***Opportunities for co-construction***
Although the students were working on individual stories (in contrast to the co-authored letters above), they were allowed a space to work collaboratively with peers and were encouraged to ask for help as they were writing. Mario and Ryan co-constructed this text as they went back and forth negotiating word choice and meaning. This was not an example of one-way translation where one partner transmitted knowledge and the other partner received this knowledge. Instead, the two boys built off of each other's utterances across several turns. Ryan acknowledged the fact that he could not complete his story individually; rather he depended on his partner to co-construct and complete this linguistic knowledge-building process.

***Student and teacher strategies that called attention to language***
Ryan used one of the most explicit strategies to call attention to language, which was simply to ask his partner to help him express a word in the target language (Spanish) using the non-target language (English). In order to get his meaning across, he used the word in a sentence, and when this was not understood, he elaborated and generated analogous situations to further explain the meaning of the word he was seeking. He engaged his partner in the conversation and provided simultaneous opportunities for Mario to consider the meaning of the English word more deeply. In this example, the students were not directly impacted by teacher practices since she was not present. However, the teacher had established the "writing centre" as a space for students to ask their peers questions either informally or formally during peer revisions as part of the writing process.

## DISCUSSION

### The value of two languages as academic tools

Bringing more than one language to public space in schools has multiple benefits, both cognitive and social. In this discussion, I will highlight two dimensions of these benefits, drawing from sociocultural theory (Lantolf & Thorne, 2006; Swain, Brooks, and Tacalli-Beller, 2002) and ecological perspectives of language learning (Kramsch, 2002; van Lier, 2000). The first dimension highlights the ways that learners used language as a tool for mediation and an object for analysis. The second dimension highlights the additional language learning affordances (van Lier, 2000) that were created when students used and heard both target languages – blurring boundaries of official monolingual spaces.

Building upon earlier studies in Second Language Acquisition that have employed a sociocultural framework (Anton & DiCamillla, 1998; Donato & Lantolf, 1990; Lantolf, 2000; Foster & Ohta, 2005; Swain, 2000; Swain & Lapkin, 1998; Swain, Brooks & Tocalli-Beller, 2002), this study confirms earlier evidence that learners use language as a tool for mediation and as an object of analysis when learners engaged in cross-linguistic comparisons. I argue that the findings in this study are different from earlier studies that have focused on single-language acquisition (Anton & DiCamillla, 1998; Foster & Ohta, 2005; Swain, 2000; Swain & Lapkin, 1998; Swain, Brooks & Tocalli-Beller, 2002), because in this bilingual setting, students concurrently drew upon bilingual resources during activities where languages went back and forth to act as tools for mediation and objects of analyses. By bringing two languages to the table, students were involved in metalinguistic and metacognitive analysis that would be uncommon in most monolingual classrooms. This study found that students actively used two languages to clarify ambiguities within one language and to deepen understanding of meaning in both languages, thereby offering greater affordances for language learning.

An important feature of this learning environment and the students' interaction was the use of two languages and hybrid practices (Gutiérrez, Baquedano-López & Tejeda, 1999). We saw examples of hybrid practices when partners drew from and combined features from their different communicative repertoires. There were several instances when students blurred language boundaries, inserting English in Spanish phrases, and creating new words by extending rules across languages (see Daniel and Javier's example). This leads us to a discussion of the second dimension of the value of two languages: considering reciprocal affordances for language learning.

The students used two languages to bridge gaps in understanding, while also revealing new questions and areas for growth. Using two or more languages created additional opportunities for multiple participants to be learning language in relevant moment-to-moment interaction. For example, students inserted non-target language words in the midst of their interaction in order to communicate their ideas (prioritizing meaning over form), thus creating an affordance for fellow students to continue learning two languages. Language crossing often provided unique scaffolding opportunities and met students' needs during the communicative activities. Students used whatever resources were available to them in the moment in order to understand a new concept, creating scaffolds to new and unfamiliar language. Creating opportunities for reciprocal negotiation for meaning across two languages may offer increased language learning affordances for both learners.

In a setting where two languages are available all of the time, it seems that two kinds of acquisition can also be occurring simultaneously. Rather than separate or discrete learning environments, this situation presented overlapping language learning opportunities, during which students acted as co-informants. In other words, when students asked questions about Spanish using English, they provided learning opportunities for English learners as well. By shedding light on these moments of reciprocal language learning, this study opens up new possibilities and contexts for the study of SLA and the teaching of second language learners.

**Recognising learners' expertise and distinct linguistic funds of knowledge**

Using two languages in this academic setting was a way to recognise and expand these students' multilingual sociolinguistic repertoires. As students discussed linguistic problems, it became clear how their prior experiences – using multiple languages for authentic communication in social communities outside of school – were valued in this situation. While the previous discussion section focused on the enhanced linguistic affordances provided by the use of two languages, it is important to acknowledge that the students' interactions brought together much more than linguistic systems or *la langue* (Agar, 1994; Saussure, 1959). This dual-immersion school context brought together young people who participated in distinct ethnolinguistic communities and cultural practices beyond the school, which enriched opportunities for bilingual learning at school. These students were able to accomplish sophisticated forms of cross-linguistic comparison, not solely because two languages were the topics of academic study, but also because students brought their understanding of social discourse, which they acquired from participation in very different communities outside of school. LREs went beyond what one might expect in a one-way context or a second language classroom that is distanced from authentic target-language speakers.

Simple translations became more interesting when students disagreed over the correct translation and drew upon their distinct experiences (or communities of practice) to justify their knowledge of the word in question. Such discussions allowed students to demonstrate their language expertise and provided a new context for other students to understand this word. Student discussions about socio-pragmatics embodied a complex form of metalinguistic talk as the interlocutors were compelled to consider several layers of linguistic and social understanding in order to evaluate word choices. The learners drew upon their linguistic funds of knowledge (acquired during their use of multiple languages and hybrid practices in their communities outside of school) and their experience choosing among their sociolinguistic repertoires to fit particular contexts and audiences in order to engage in rich linguistic and conceptual analysis.

**Opportunities for collaborative co-construction**

Confirming previous research examining peer dialogue and second language acquisition (Swain *et al.,* 2002), this study found that co-writing activities provided many opportunities for students to work together to manipulate language and to generate and assess alternative language using their collaborative expertise. The study found several opportunities for co-construction recognising the value of different participants during the writing activities. Students actively requested help from their partners and offered advice, positioning themselves as both experts and novices throughout the interactions.

Swain (2000) argues that the collaborative dialogue observed is both "social and cognitive activity, it is linguistic problem-solving through social interaction," and is therefore an occasion for language learning (p. 111). Findings from my study corroborate Swain's claim that it is not the input or the output alone that is important in collaborative dialogue, but "the joint construction of knowledge resulting from questions and replies" (Swain, 2000, p. 112). Because these learners came with different sociolinguistic resources which were recognised in this bilingual setting,

they were able to push the dialogue further than simple questions and replies about one language. Through their bilingual, collaborative dialogue, they were co-constructing their bilingual proficiencies rather than parallel monolingual proficiencies. This suggests that activities, such as co-writing, which encourage multiple voices and co-construction among peers can benefit language learning in dual immersion classrooms.

**Student strategies that generate affordances for linguistic analysis**

This study found evidence of several language learning accomplishments that can occur during student interactions. Students engaged in metalinguistic comparisons, calling attention to linguistic and social features of literacy; they reflected on language as a tool for mediation during the writing process; they built off each other's ideas to co-generate new meaning; and they reflected upon audience, sharpened meaning, defended word choice, and developed strategies for resolving discord between languages.

A valuable student strategy that often led to language related episodes (LREs) was the simple act of reading and writing aloud (instead of silently and individually). Although "reading aloud" is a common practice in many classrooms, "writing aloud" was a unique strategy encouraged by the teachers in this context to support pair work. This allowed students to share the reading and writing experience with their partners and to verbalise their thought processes. What might have remained as individual, private speech (Thorne & Lantolf, 2007; Vygotsky, 1978) became shared public learning space. This extra step of making the reading and writing a more public activity allowed for both partners to become involved in the communicative act and allowed extra time to reflect on language. These verbalisations often called attention to something about language that might have been lost on a page as an individual act left un-analysed. Another practice I observed across several classroom practices was the use of small whiteboards as a space to negotiate meaning and to try out several versions of language before they wrote this in their final draft. The student would use these boards (or scrap paper) as a semiotic tool to think aloud and check their own hypotheses about language with a partner.

Other student strategies involved using semiotic tools, beyond the text, to clarify meaning and to resolve linguistic problems (which consequently called attention to language use and form). For example, students often used gesture, body language and pantomime as they sought to express their ideas. This importance of body language was evident in animated narratives of the students in Excerpt 1 and Excerpt 2. Vocal intonation (such as trying out a new word with a rising intonation) was also a signal soliciting help from one's partner that called attention to language.

**Teacher strategies that that generate affordances for linguistic analysis**

While several examples of language related episodes (LREs) were the result of student strategies mentioned above, most LREs were supported by teachers in the ways they created the classroom context and in the ways they became participants in the interactions. In Table 1 below, I have summarized the different approaches that I observed teachers use throughout the year to call attention to language. As described earlier, I focused the analysis of this study on the emergence of learning opportunities

and the pedagogical value of interactional contexts and processes (for more detailed explanation of teacher strategies that encouraged LREs across different activities, see Martin-Beltran, 2006.)

The key contextual factors from the first category in the table below (which include using two languages as academic tools, recognising students' distinct language expertise, and creating activities that allow for co-construction) have been discussed in the analysis sections above. For example, the nature of the activities that teachers create for classrooms may allow greater affordances for learners to demonstrate their language expertise and value other participants' diverse resources. The teacher modelled collaborative writing, practised metatalk about language with students, and provided self-evaluation and teacher-evaluation rubrics with specific collaboration criteria so the students understood that collaborative behaviours were an important part of this assignment. In addition to providing clear guidelines for the activities, the teacher also took an active role through modeling and intervening when necessary (category 2 and 3 in the table below).

| Teacher strategies | Examples |
|---|---|
| 1) Creating classroom context | • Allow and encourage the use of two (or more) languages as tools for academic problem solving<br>• Create a space for language play across multiple languages<br>• Cultivate curiosity about language<br>• Recognise students' distinct language expertise (position students as experts and potential teachers)<br>• Create activities that require co-construction among students with diverse linguistic funds of knowledge<br>• Create learning experiences that require multiple voices and encourage participants to draw upon their different strengths in different languages<br>• Establish guidelines for collaboration as part of the classroom culture |
| 2) Modeling | • Ask questions about language<br>• Ask students for help with language (that is, "how would you say?")<br>• Show how mistakes can be opportunities to learn<br>• Model revision process (manipulate text and try out different language)<br>• Model "think alouds" about language |
| 3) Intervention in interactions | • Ask about cross-linguistic comparisons (that is, "How would you say this in Spanish/English?")<br>• Ask reflective questions about language (that is, "When/why do you use that word?")<br>• Offer strategies to solve linguistic problems (ithat is, "Show your partner what you mean. How else could you express that?")<br>• Encourage students to listen and paraphrase what their peers say<br>• Redirect questions to peers (that is, "Can your partner help with this?")<br>• Evaluate student collaboration explicitly |

**Table 1: Teacher strategies that generate affordances for linguistic analysis**

An example of a teacher modeling languaging can be seen in Excerpt 1, when the teacher asked questions and encouraged questions about language. The teacher intervened in the student interaction when she encouraged cross-linguistic analysis by asking about how to say "nightmare" in Spanish. Her reflective questioning about language created a space for further language play and increased metalinguistic awareness among the students. Throughout the year, I often observed the teacher posing questions to the students about language, positioning herself as a learner and positioning her students as experts who contributed their own funds of knowledge and legitimised students as co-constructors of knowledge. Teachers also modeled "think alouds" when they wrote texts together as a class (on an overhead projector or chalkboard) and framed mistakes as opportunities to learn or question language use. Examples of teacher intervention and modeling were also observed in Excerpt 2, when the teacher noticed Heather's confusion and encouraged her verbal problem-solving by asking, "What's so confusing?"  During other LREs (not included here for the sake of space), I observed teachers re-directing questions to peers. Students often asked the teacher as the perceived language authority in the classroom, but the teacher afforded more opportunities for languaging when she asked students to help each other.

The teacher must also know when *not* to intervene in order to allow students to independently reflect on language. It is more difficult to illustrate teachers' non-intervention in the transcripts; however, a teacher's choice to remain silent during student interactions was often as important as her interjections in the dialogue. For example, although the teacher was present when Heather asked about the word "leaning", the teacher decided not to intervene even though she could have provided the vocabulary needed. Instead, she allowed space for Heather to use other strategies to negotiate for meaning with Iliana in order for both students to benefit from this interaction (and recognise each other's expertise rather than depending on the teacher).

Although we do not see the role of the teacher directly in the transcripts of excerpts 3 or 4, the teacher was instrumental in setting up assignment guidelines and a classroom context where students were encouraged to ask questions about language. For example, Excerpt 3 occurred when students were re-reading their co-constructed text (as was required by the rubric for this assignment). Excerpt 4 also occurred within a classroom that encouraged peer collaboration and co-construction. For example, before the teacher would answer a question, she would refer the students to a poster that was posted at the front of the room that read, "When I need help I…1) use my resources (dictionary, books), 2) ask a classmate, 3) ask the teacher. To support the literacy centres, the teacher required students to complete self and group evaluations of learning and cooperation during centre time. The teacher also placed priority on cooperation during her own evaluation of student work. Future research is needed to look more closely at the implications of teacher intervention during student interaction in order to examine the impact of teacher strategies on student engagement in linguistic analysis.

**IMPLICATIONS**

Although previous research, policy and dual-immersion program design documents (Christian, Howard, & Loeb, 2000; de Jong, 2002; Lindholm-Leary, 2001) have suggested the key contextual factors described above are important, little attention has been given to how these factors play out in classroom practices. This study sheds light on factors that cultivate a space for languaging and demonstrates what learners are able to accomplish when given the opportunities to co-construct bilingual spaces. The students exceeded teacher expectations as they opened new doors across languages and multiplied possibilities for enhanced language and conceptual learning. Language-related episodes, or examples of languaging, demonstrate the benefits of a dual-immersion program, where students from different speech communities have opportunities to hear and compare ways of using language. The interactions analysed for this study illustrated the unique opportunities for linguistic problem-solving in a dual-immersion context where two languages are framed (and utilised daily) as academic tools and social resources.

This study found evidence of students using a metaphorical *language boomerang* – when learners cross over to another language to engage in metalinguistic analysis and return to the target language with new observations and possibly a deeper level of analysis. This finding has implications for teachers working with students who come to school with diverse language resources (other than Standard English). Evidence from this study suggests that teachers working with language-minority students in their English-medium classrooms should draw upon their students' other languages to promote a deeper analysis of English.  By drawing from their wide range of multilingual resources, students are less likely to be excluded from the learning situation and more likely to participate in the academic discussion.

Despite the challenges this school faced in terms of unequal power relations that inevitably made their way into the classroom (see Martin-Beltran, 2006), this school continued to provide a unique space where two languages were valued as resources in everyday practices. This school setting, which recognised both Spanish and English as important academic tools, afforded opportunities for English language learners to be placed in a position of power, in contrast to mainstream educational settings in which English-language learners are often assigned low academic status (Christian & Bloome, 2004; Yoon, 2008).

The examples of student dialogue demonstrate why it is so important that students have meaningful interactions with other students who are members of distinct target-language speech communities. The classroom teacher alone cannot provide the wide range of social experiences that are an essential part of the communication in the world outside of the classroom. Instead, teachers can tap into the sociolinguistic resources students bring to the classroom. The students offer tremendous funds of knowledge because they embody, construct, reflect and re-create these worlds and social communities from which language emerges. Therefore, teachers need to plan activities which require multiple voices and encourage participants to draw upon their different strengths in different languages to co-construct texts.

The findings from this study show how learners created further opportunities for language learning as they broke language norms (of parallel monolingualism) in order

solve a communicative problem. I argue that language learning affordances could be increased in such settings by allowing interplay between languages, by expanding language boundaries across instructional domains, and by creating multiple opportunities for language learners to hear target languages. In response to those who may critique bilingual programs for not providing enough instruction or "input" in English, this study provides evidence that English language learners have increased access to meaningful language in dual-language settings in ways that are not available in monolingual English settings. It is also important to give more attention to the learning opportunities that arise when students struggle with language. What may be one student's weakness becomes an opportunity for several learners to build strength in both languages simultaneously.

Findings from this study present further challenges and contributions to research on language learning in schools. The students' dialogues illustrate the complexity of bilingualism where languages are not easily separated – shedding light on the continuous, simultaneous and reciprocal affordances for language learning between learners. Students were found to use the language boomerang to link two artificially separated languages and, as they drew upon multiple resources to meaningfully communicate, they generated new affordances for dual-language learning. This intermingling of languages presents a challenge to SLA researchers who have often assumed a second language as a discrete unit of analysis. This study urges the field to more closely consider reciprocal affordances for language learning among bilingual learners and calls for future research to bridge insight across the fields of second language acquisition and bilingual research.

Valuing two languages in the public space at school and drawing upon students' distinct linguistic funds of knowledge does not happen automatically in school, but is cultivated over time through teacher and student participation. While I do not claim that there was increased linguistic and conceptual understanding every time students were given the opportunity to work together in this setting, I do argue that by allowing the interplay of two languages and by offering activities that encourage co-construction and value distinct linguistic funds of knowledge, teachers are creating a space where these students will come together again and continue their pursuit of multilingual learning.

**REFERENCES**

Agar, M. (1994). Language shock: Understanding the culture of conversation. New York, NY: Quill Press.

Alanis, I. (2000). A Texas two-way bilingual program: Its effects on linguistic and academic achievement. Bilingual *Research Journal*, *24*(3), 225-248.

Angelova, M., Gunawardena, D., & Volk, D. (2006). Peer teaching and learning: Co-constructing language in a dual language first grade. *Language and Education,* *20*(3), 173-190.

Anton, M., & DiCamilla, F. (1998). Socio-cognitive functions of L1 collaborative interaction in the L2 classroom. *Canadian Modern Language Review*, *54*(3), 314-342.

Christian, D., Howard, E., & Loeb, M. (2000). Bilingualism for all: Two-way immersion education in the United States. *Theory into Practice, 39*(4), 258-266.

Christian, B., & Bloome, D. (2004). Learning to read is who you are. *Reading and Writing Quarterly, 20,* 365–384.

Cook, G. (2000). *Language Play.* Oxford: Oxford University Press.

de Jong, E. (2002). Effective bilingual education: From theory to academic achievement in a two-way bilingual program. *Bilingual Research Journal, 26*(1), 77-108.

Donato, R., & Lantolf, J. (1990). The dialogic origins of L2 monitoring. *Pragmatics and Language Learning, 1,* 83-98.

Erickson, F. (1998). Qualitative research methods for science education. In B. Fraser & K. Tobin (Eds.), *International handbook of science education* (pp. 1155-1173). Dordrecht: Kluwer Academic Publishing.

Fitts, S. (2006). Reconstructing the status quo: Linguistic interaction in a dual-language school. *Bilingual Research Journal, 30*(2), 337-365.

Foster, P., & Ohta, A. S. (2005) Negotiation for meaning and peer assistance in second language classrooms. *Applied Linguistics, 26*(3), 402-430.

Gass, S. (1997). *Input, interaction, and the second language learner*, Mahwah, NJ: Lawrence Erlbaum.

Gutiérrez, K., Baquedano-López, P., & Tejeda, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, culture, and activity, 6*(4), 286-303.

Haneda, M., & Wells, G. (2000). Writing in knowledge-building communities. *Research in the Teaching of English*, *34*(3), 430.

Harris, R. (1999) Rethinking the bilingual learner. In A. Turo, C. Leung & C. Cable (Eds.), *Rethinking language education* (pp. 67-81). London: CILT.

Hatch, E. (1992). *Discourse and language education*. Cambridge: Cambridge University Press.

Hayes, R. (2005). Conversation, negotiation, and the word as deed: Linguistic interaction in a dual language program. *Linguistics and Education, 16*, 93-112.

Heller, M. (1999). *Linguistic minorities and modernity. A sociolinguistic ethnography.* Harlow: Addison-Wesley Longman.

Howard, E., Sugarman, J., Christian, D., Lindholm-Leary, K., & Rogers, D. (2007). *Guiding principles for dual language education* (2$^{nd}$ ed.). Washington, DC: Centre for Applied Linguistics

Keck, C., Iberri-Shea, G., Tracy-Ventura, N., & Wa-Mbaleka, S. (2006). Investigating the empirical link between task-based interaction and acquisition: A meta-analysis. In J. Norris & L. Ortega (Eds.), *Synthesizing research on language learning and teaching* (pp. 91–131). Philadelphia: John Benjamins Publishing.

Kramsch, C. (2002) *Language acquisition and language socialization: Ecological perspectives.* New York: Continuum.

Krashen, S. (1985). *The input hypothesis: Issues and implications*. New York: Longman.

Lantolf, J.  (2000). *Sociocultural theory and second language learning*. Oxford: Oxford University Press.

Lantolf, J., & Thorne, S. (2006) *Sociocultural theory and the genesis of second language development.* New York: Oxford University Press.

Lapkin, S., Swain, M., & Smith, M. (2002). Reformulation and the learning of French pronominal verbs in a Canadian French immersion context. *Modern Language Journal, 86*, 485-507.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.

Lee, J., Bonnet-Hill, L., & Gillespie, J. (2008). Learning in two languages: Interactional space for becoming bilingual speakers. *The International Journal of Bilingual Education and Bilingualism, 11*(1), 75-94.

Leung, C., Harris, R., & Rampton, B. (1997). The idealized native speaker, reified ethnicities, and classroom realities. *TESOL Quarterly, 31*(3), 543-560.

Lindholm-Leary, K. (2001) *Dual language education*. Clevedon, England: Multilingual Matters.

Long, M. (1996). The role of linguistic environment in second language acquisition. In W. Ritchie & T. Bhatia (Eds.), *Handbook of second language acquisition* (pp. 413-468). London: Academic Press.

Long, M., & Porter, P. (1985). Group work, interlanguage talk, and second language acquisition. *TESOL Quarterly, 19*(2), 207-228.

Mackey, A. (2007). *Conversational interaction in second language acquisition. A series of empirical studies.* Oxford: Oxford University Press.

Mackey, A., Gass, S., & McDonough, K. (2000). How do learners perceive interactional feedback? *Studies in Second Language Acquisition, 22*(4): 471-97.

Mackey, A., Oliver, R., & Leeman, J. (2003) Interactional input and the incorporation of feedback: An exploration of NS-NNS and NNS-NNS adult and child dyads. *Language Learning, 53*(1), 35-66.

Martin-Beltrán, M. (2006) *Opportunities for language exchange between language minority and language majority students.* Unpublished doctoral dissertation, Stanford University.

Martin-Beltrán, M. (2007) *Co-constructing competence and conditions for language exchange among language-minority and language-majority students.* Paper prepared for the American Educational Research Association Conference. Chicago, IL.

Mayo, M. (2002). The effectiveness of two form-focused tasks in advanced EFL pedagogy. *International Journal of Applied Linguistics, 12*(2), 156-175.

Moll, L., Amanti, C., Neff, D., & González, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice, 31*(2), 132-141.

Oliver, R. (2000). Age differences in negotiation and pairwork. Language Learning. 50, 119-151.

Pavlenko, A. (2000). L2 influence on L1 in late bilingualism. *Issues in Applied Linguistics, 11*(2), 175-206.

Pica, T. (1994). Research on negotiation: What does it reveal about second-language learning conditions, processes, and outcomes? *Language Learning, 44*(3), 493-527.

Romaine, S. (1996) Bilingualism. In W. Ritchie & T. Bhatia (Eds.), *Handbook of language acquisition* (pp. 571-604). New York: Academic Press.

Saussure, F. (1959). *Course in general linguistics* (W. Baskin, Trans.). New York: The Philosophical Library.

Smith, P. (2001). Community language resources in dual language schooling. *Bilingual Research Journal, 25,* 375-405.

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.), *Input in second language acquisition* (pp. 235-253). Rowley, Mass: Newbury House.

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-114). Oxford: Oxford University Press.

Swain, M. (2006). Languaging, agency and collaboration in advanced second language learning. In H. Byrnes, (Ed.), *Advanced language learning: The contribution of Halliday and Vygotsky* (pp. 95–108). London: Continuum.

Swain, M., Brooks, L., & Tocalli-Beller, A. (2002). Peer-peer dialogue as a means of second language learning. *Annual Review of Applied Linguistics, 22*, 171-185.

Swain, M., & Deters, P. (2007). "New" mainstream SLA theory: Expanded and enriched. *Modern Language Journal*, *91*(5), 820-836.

Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *Modern Language Journal, 82*(3), 320-337.

Swain, M., & Lapkin, S. (2002). Talking it through: Two French immersion learners' response to reformulation. *International Journal of Educational Research, 37,* 285-304.

Thomas, W., & Collier, V. (2002). *A national study of school effectiveness for language minority students' long-term academic achievement.* Santa Cruz, CA and Washington, DC: Centre for Research on Education, Diversity & Excellence.

Thorne, S., & Lantolf, J. (2007). A linguistics of communicative activity. In S. Makoni & A. Pennycook (Eds.), *Disinventing and reconstituting languages* (pp. 170-195). Clevedon: Multilingual Matters.

Tocalli-Beller, A., & Swain, M. (2007). Riddles and puns in the ESL classroom: Adults talk to learn. In A. Mackey (Ed.), *Conversational interaction in second language acquisition: Empirical studies* (pp. 143–167). Oxford: Oxford University Press.

Valdés, G. (2003). Expanding definitions of giftedness: Young interpreters of immigrant *background*. Mahwah, NJ: Erlbaum.

Valdés, G. (2005). Bilingualism, heritage language learners, and SLA research: Opportunities lost or seized? *Modern Language Journal*, *89*(3), 410-434.

van Lier, L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245-259). Oxford: Oxford University Press.

Vygotsky, L. (1978). *Mind in society*. Cambridge, Mass: Harvard University Press.

Wei, L. (2000). *The bilingualism reader*. London: Routledge.

Wells, G. (1999) Using L1 to master L2: A response to Anton and DiCamilla's "Socio-cognitive functions of L1 collaborative interaction in the L2 classroom". *Modern Language Journal*, *83,* 248-254.

Wertsch, J. (1998). *Mind as action*. Oxford: Oxford University Press.

Yoon, B. (2008). Uninvited guests: The influence of teachers' roles and pedagogies on the positioning of English language learners in the regular classroom. *American Educational Research Journal, 45*(2), 495-522.

Zentella, A. (1997). *Growing up bilingual: Puerto Rican children in New York*. Malden, MA: Blackwell Publishers.

**APPENDIX A**
**Table 2: Focal student characteristics**

| Students *Shaded boxes are to differentiate student pairs* | Reading level Spanish[4] | Reading level English | Language learner status (as defined by school[5]) | Home language Reported use with **parents**[6] | Home language Reported language use with **siblings** | ADEPT score[7] Only for ELLs beginning/ end of year |
|---|---|---|---|---|---|---|
| Heather | At grade level | Above | English-only Spanish learner | English | English | N/A |
| Iliana | Above | Below | ELL | Spanish | Mostly Spanish (some English) | 1/2 |
| Javier | Above | At grade level | R-FEP (3rd grade) | Mostly Spanish | Both | N/A |
| Daniel | At grade level | Above | English-only Spanish learner | Mostly English | English | N/A |
| Ignacio | Below | Below | ELL/ R-FEP (5th grade) | Mostly Spanish | Both | 3/ 4 re-designated end of year |
| Ruben | At grade level | At grade level | R-FEP (4th grade) | Spanish | Both | N/A |
| Mario | At grade level | At grade level | ELL | Spanish | Mostly Spanish | 3/3 |
| Ryan | At grade level | At grade level | English-only Spanish learner | English | English | N/A |

[4] Both Spanish and English reading levels were teacher assessed each trimester using school wide assessment benchmarks which were guided by adopted textbook references.
[5] ELL= English language learner describes students who speak a language other than English at home and who have not yet met the criteria to be redesignated. RFEP= Redesignated Fluent English Proficient refers to a student who entered school as an ELL and became proficient in English. This is determined by a combination of standardized test scores including the California English Language Development Test (CELDT) and the English language arts test, as well as teacher recommendations.
[6] From survey that offered the following choices: Spanish-only, Mostly Spanish (some English), Both (equally), Mostly English (some Spanish), English-only
[8] ADEPT (A Developmental English Proficiency Test) is a language assessment instrument (aligned with the CELDT, see note 9) used with students across grade levels K-8 that is leveled from 1-5. (pre-production to intermediate fluency II).

**APPENDIX B**

**Transcription Conventions**

| | |
|---|---|
| @ for each syllable | |
| :: double colon | Overlapping speech (included only where significant) |
| dash- | Truncated word (sudden cut off) |
| "double quotes" | indicates code switching (i.e: use "Español" during English instructional time  or usar "English" durante clase de español) |
| 'single quote' | participants indicate written language |
| ? | rising intonation (indicating question) |
| ! | exclamatory intonation |
| <u>underline</u> | word emphasized by speaker |
| *italics* | translation/ gloss of original text |
| CAPS | Indicates shouting or raised volume of speaker |
| xx | unintelligible words |
| (# seconds) | Pause |
| **Bold type** | highlighted for analytical purposes |

| |
|---|
| Excerpts taken from larger transcriptions of student interactions. Line numbers are not from original transcripts. They are renumbered here. |