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What is This?
Teachers’ use of linguistic scaffolding to support the academic language development of first-grade emergent bilingual students

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Abstract
Research suggests that teachers need to scaffold emergent bilingual students as they develop the complex language associated with school success. This may especially be true in dual language settings, where children are learning two languages simultaneously. In this study, therefore, I investigate the linguistic scaffolding practices of first-grade dual language teachers as they support academic language development for their Spanish-dominant students. Academic language is viewed not only as a set of linguistic components but also as a way of accomplishing certain functions and participating in context-reduced communication. Findings indicate that teachers engage in scaffolding both within and across lessons, providing insights into ways teachers can support academic language development for emergent bilingual students in general.

Keywords
dual language education, academic language, bilingualism, oral language

Introduction
Language-minority children at all grade levels compare unfavourably with native English speakers on academic tests such as the National Assessment of Educational Progress and state standardized tests (Goldenberg, 2008). Their underachievement in classrooms is well documented, although
researchers have suggested different root causes (Genesee et al., 2006; Goldenberg, 1996; Ladson-Billings, 2006). Spanish speakers, in particular, struggle academically, generally doing poorer in school and exhibiting higher dropout rates than children from other immigrant groups (Goldenberg, 1996; Suárez-Orozco et al., 2008). Multiple studies have underscored the importance of academic language proficiency for the success of all children, and especially those learning English as a second language (Arreaga-Mayer and Perdomo-Rivera, 1996; Freeman, 2000; Goldenberg, 1996). Yet, little is currently known about how academic language—the decontextualized register of language necessary to participate in the literate community of school—can be instructionally supported for emergent bilingual children in primary classrooms (Goldenberg and Coleman, 2010).

In this study, therefore, I conducted an in-depth investigation of the instruction that three first-grade dual language (DL) teachers provided in order to understand what opportunities for oral academic language development they created (Goldenberg and Coleman, 2010; Harper and deJong, 2009). I investigated instruction to support academic language in both English and Spanish to better understand the language-learning opportunities provided by teachers programme wide. Findings from this study make a unique contribution to the literature base because previous studies of academic language for bilingual students have attended to its development in English but not the home language (Bowers et al., 2010; Gibbons, 1998; Spycher, 2009). This is a notable gap in the literature, given what is known about the value of home language proficiency for support of English development (Cummins, 1981; Howard et al., 2007).

**Theoretical framework**

**Dual language education**

DL education—sometimes referred to as two-way immersion—is a programme model that brings speakers of majority and minority languages together for instruction in both languages (Tedick et al., 2011). Children in such programmes receive approximately half of their content instruction in each language, although the way in which instruction is organized varies widely. DL education differs from other bilingual and English as a Second Language (ESL) programme models in that it is additive in nature, with the goal of developing bilingualism and biliteracy in all children (Lindholm, 1990, 1991). Students in such programmes are therefore considered emergent
bilinguals (Christian, 1994; García and Kleifgen, 2010), the term I will use to refer to Spanish-dominant DL students throughout this article.

From a sociocultural perspective, the DL classroom is a place where knowledge is jointly constructed, in large part through language (Gibbons, 2002; Vygotsky, 1978), the medium through which students learn. When DL is implemented well, it opens up possibilities for emergent bilingual children to add the registers of schooling while continuing to develop their home language. Both the teacher and peers act as linguistic resources for those who are less proficient in the target language, whether English or the minority language. All children have the opportunity to acquire academic content and develop advanced language skills simultaneously.

Much of the research on DL programmes has focused on the equitable distribution of instruction in English and the minority language across the curriculum (Amrein and Peña, 2000; Lindholm, 1990; Lindholm-Leary, 2001). For example, some research suggests that the amount of the minority language spoken both by teachers and among students is often less than one would expect based on the DL programme model (Hickey, 2001; Potowski, 2004). The percentage of instruction that is supposed to occur in the minority language ranges from 50% to 90%, depending on the grade level of students. During a given portion of the school day, all or most communication could be expected to occur in the target language. Nevertheless, teachers have been found to code-switch from the minority language to English at a high rate (Escamilla, 1994; Palmer, 2009), thus reducing the overall amount of target language heard by all students.

While linguistic equity is undoubtedly important, an exclusive focus on language of instruction does not acknowledge the complexity of bilingual and biliterate development within such programmes (Hickey, 2001; Potowski, 2004; Valdés, 1997; Wiese, 2004) and underestimates the role of instruction (Escamilla, 1994; Freeman, 1996; Hadi-Tabassum, 2006; Valdés, 1997; Wiese, 2004). For example, it is widely accepted that DL teachers should provide instruction that supports authentic communication about academic content that is both developmentally and linguistically appropriate (Gibbons, 1998, 1993). However, some researchers suggest that many DL classrooms are sites of struggle between majority and minority languages because learners come from both groups (Valdés, 1997), making it difficult for teachers to determine the appropriateness of given instruction.

Further, studies highlighting schoolwide best practices for emergent bilingual children are abundant (August and Hakuta, 1997; Miramontes et al., 1997), but research that expands our knowledge base about how specifically
to facilitate academic language for them is still in its early stages (Goldenberg and Coleman, 2010). To that end, researchers have emphasized the need to better understand the connection between instruction and academic language skills (Arreaga-Mayer and Perdomo-Rivera, 1996; Gersten and Baker, 2000; Goldenberg, 1996; Reese et al., 2006; Spycher, 2009). The present study adds to the literature on academic language instruction for emergent bilingual students, with particular attention being paid to oral linguistic scaffolding.

Academic language and instruction to facilitate its development

Multiple definitions of academic language have been proposed in the research literature, but it is generally accepted to be central to school success and qualitatively different from the conversational language that is common outside of school (Cummins, 2000; Gibbons, 1993; Gibbons and Lascar, 1998; Goldenberg, 2008; Scarcella, 2003; Schleppegrell, 2012; Stahl and Nagy, 2006). For the purposes of this study, academic language includes: linguistic components such as content-specific vocabulary, complex grammatical structures and morphologically dense words (Cummins, 2003; Echevarría et al., 2008; Goldenberg, 2008; Stahl and Nagy, 2006); the underlying functions that language accomplishes—whether to justify an opinion, compare two objects or transition between ideas, for example (Bunch, 2004; Echevarría et al., 2008; Gibbons, 2002; Goldenberg, 2008; Lucero, 2012; Snow, 1991); and context-reduced communication that may be conceptually abstract as well as linguistically dense (Gibbons and Lascar, 1998; Goldenberg, 2008; Stahl and Nagy, 2006). This decontextualized language is typically considered to be more “written-like” than conversational language.

Some recent research has begun to investigate teacher practice around academic language in mainstream classrooms (Bowers et al., 2010), and a few studies suggest that targeted instruction in decontextualized oral language for young children may lead to improved academic outcomes over time (Dickinson and Sprague, 2001; Saunders et al., 2006). However, little is known about the kinds of instructional practices currently taking place in DL classrooms. A key purpose of the current study was to identify and understand the kinds of scaffolding that teachers provide to support children as they “learn and ... display knowledge about what they have learned in ways that will be valued” (Schleppegrell, 2012: 410).
**Linguistic scaffolding**

In this article, linguistic scaffolding is defined as a category of instructional moves through which a teacher provides mindful and responsive support for student language output, that which integrates “the current level of learners’ knowledge and L2 abilities, and the broader knowledge and specialist language of the … community into which the students are being apprenticed” (Gibbons, 2003: 250). It can be conceptualized in terms of the zone of proximal development (Nassaji and Swain, 2000; Vygotsky, 1978), in that the language a teacher uses needs to be comprehensible to students while at the same time providing them with access to new and potentially more sophisticated language (Araujo, 2002; Bradley and Reinking, 2011; Gibbons, 2003). When used with emergent bilinguals, a key goal of scaffolding is to support students as they attempt to produce more complete and complex sentences than they might be able to do on their own. In such situations, teachers press on students’ language abilities in appropriate and responsive ways. This enables students to accomplish certain functions with language and therefore participate in more conceptually abstract communication.

Linguistic scaffolding can be written or spoken, but in this article, I focus only on oral scaffolding (Dutro and Moran, 2003; Gibbons, 2002, 2006), which includes practices such as: introducing new language at the point of communicative need (Gibbons, 2002); modelling academic language that is slightly above that which students could use themselves; and accepting student contributions that are appropriate to their language proficiency level (Genesee et al., 2006; Vygotsky, 1978). A more structured form of oral scaffolding is teacher-guided reporting, wherein teachers and students explain together to the class what they have learned, each building on the others’ contributions. What all instances of linguistic scaffolding share is that they are designed to help students access, understand and explain academic content (Dutro and Moran, 2003; Gibbons, 2003).

At the micro level, linguistic scaffolding occurs within a single interaction or instructional episode (Gibbons, 2006; Nassaji and Swain, 2000). The teacher may repeat or rephrase a student’s contribution, or prompt for more specificity and elaboration (Yifat and Zadunaisky-Ehrlich, 2008). Teachers use micro discourse scaffolding to repeatedly expose students to key language, and an analysis of it was important for this study because “language input that is spoken clearly and contains a considerable amount of syntactic and semantic redundancy is easier to understand than input that lacks these features” (Cummins, 2000: 72). Appropriate scaffolding within
students’ zones of proximal development is considered to offer critical support for the development of academic language in particular (Genesee et al., 2006; Gibbons, 2003). Thus, instruction within this zone might be considered to be one of the most effective moves a teacher can make to support the development of academic language.

Macro discourses are those that continue across lessons within a unit (Nassaji and Swain, 2000). At the macro level, the teacher may adjust the amount and type of linguistic scaffolding over a number of lessons to correspond to children’s evolving understanding and use of key academic language within the unit. While it shares many of the same features as micro scaffolding, it is conceptually distinct in that teacher–student interactions are driven by shared experience and jointly constructed knowledge over time. This sustained linguistic scaffolding not only helps children understand new language but also enables them to work toward producing their own oral and written language, and thus participate more fully as members of the academic community. This has been called a “long conversation” (Gibbons, 2006) that is supportive of academic language development.

Method

I conducted this study as a participant-observer (Becker and Geer, 1969), participating in the academic lives of three first-grade DL classrooms for the 2009–2010 academic year—a Spanish-medium classroom as well as two English-medium classrooms that served the same children. Specifically, I sought to answer the following research question: How does a team of first-grade DL teachers provide oral linguistic scaffolding to support the academic language development of Spanish-dominant emergent bilingual students? Although I examine the work of only three teachers over one school year, my focus in the larger sense is on how these examples of instruction provide insight into the academic language instruction of other DL and mainstream classroom teachers. I contend that the field needs more qualitative research that analyzes the practices teachers use to mediate the linguistic demands of schooling (Gibbons, 2003).

Setting and participants

The setting for this study was a public k-5 elementary school in a large city in the Pacific Northwest, Hurley Heights International School, which is located in a racially diverse neighbourhood near the downtown area. At the time of
the study, approximately 440 students were enrolled, 25% of whom spoke Spanish as a first language. An additional 40% spoke other languages at home. In a typical year at Hurley Heights, 42% of students receive ESL services and 69% are eligible for free and reduced lunch. It was an ideal site for my study because it met the following criteria: (1) it served a large number of Spanish-dominant emergent bilingual students; (2) it had a DL Spanish–English immersion programme; and (3) it had a schoolwide focus on academic language the year the study was conducted.

In 2009–2010, Hurley Heights was in its second year of implementation of a DL model, and it had only been implemented through first grade. The immersion students studied literacy and social studies in Spanish and maths and science in English. Instruction was organized in this way so that Spanish-dominant children would have explicit reading instruction in their home language first. As Escamilla (2010) noted, this is typical of DL programmes that are designed with the needs of minority language speakers at the forefront. The issue of how to balance languages within the programme was salient for this group of teachers because the following year, in second grade, students would start receiving literacy instruction in English for the first time and switch to studying maths and science in Spanish. Although there was no formal language plan in place, the principal indicated that she wanted the Spanish-medium teacher to be somewhat intentional about reinforcing in Spanish the maths and science concepts children were learning in their English classes. She did not, however, say anything about whether she wanted or expected the two English-medium teachers to also reinforce literacy concepts in English in preparation for the switch. Overall, it seemed that teachers were left to make their own decisions about language use in their classrooms, which may have been a function of the newness of the programme.

This study was conducted in a DL context to investigate the development of academic registers in both Spanish and English. Spanish speakers are the largest language-minority group in the United States (Goldenberg, 2008; Malagon and DeLeeuw, 2008), and I am a fluent Spanish speaker and certified k-12 Spanish teacher, so I was able to understand classroom dynamics and conduct analyses of instruction in both languages.

**Students.** Table 1 shows the breakdown of students enrolled in the first-grade DL Spanish immersion class. Of the 27 students, 13 were identified as Spanish-dominant. The criteria for establishing Spanish dominance at this school was twofold: (1) parents indicated on a home language survey that Spanish was the first language spoken and (2) the child lived in a home where
Spanish was the only or primary language spoken. As is typical of linguistically diverse classrooms, students’ levels of oral proficiency in both Spanish and English varied widely. At one end of the spectrum was a girl, Jocelyn, who was a highly functioning bilingual and biliterate reader. At the other end was a boy, Leo, who had recently arrived from Mexico and spoke little English despite his high Spanish speaking and reading levels. In general, the Spanish-dominant students in the DL programme spoke English more proficiently than their English-dominant counterparts spoke Spanish.

**Teachers.** Three first-grade teachers participated in this qualitative case study. They were selected using purposeful sampling methods based on their proximity to the DL programme and the fact that they provided daily content instruction to emergent bilingual students in the programme (Glesne, 2006; Merriam, 1998; Patton, 2002). The teachers were: Señora Molly Gregor, the Spanish-medium teacher; Mr Brad Riley, an English-medium teacher; and Ms Rebecca Cortez, an English-medium teacher. See Table 2 for more information about each teacher’s content area and experience. Señora Gregor was the only one of the three teachers who had received specific coursework in language development and had experience as a language teacher. Ms Cortez and Mr Riley had both taught for a number of years at Hurley Heights and were therefore experienced at working with second language learners. In the course of their careers, they had both attended various workshops about second language learners, but none specifically focused on language development.

All three focal teachers attended a daylong professional development (PD) session early in the school year that was facilitated by a district ESL consulting teacher. The focus of the session was how to integrate academic language objectives into content lesson plans across grade levels, and as such, did not attend specifically to instruction. The session was not focused on the needs of emergent bilingual children in particular, but because they made up such a large percentage of the school population, it seems logical that teachers would apply what they learned to their instruction of those children. In terms of its

<table>
<thead>
<tr>
<th>Total</th>
<th>Spanish speakers</th>
<th>English speakers&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>13</td>
<td>14</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>100%</td>
<td>48%</td>
<td>52%</td>
<td>63%</td>
<td>37%</td>
</tr>
</tbody>
</table>

<sup>a</sup>Some children in the Spanish immersion class were also speakers of other languages, but they were also deemed proficient in English in order to be in the programme.
relevance to this study, the PD session seemed to serve more as an opportunity for teachers to come to a shared understanding about the meaning of academic language rather than as a support for instructional practice.

**Data collection and analysis**

The data presented here come from classroom observations conducted as part of a larger qualitative case study. I conducted approximately 27 h of classroom observations over the course of the school year, for an average of 9 h with each teacher. All observations were audio recorded and I transcribed them all in full for later analysis. In addition to audio-recording observations, I also took detailed fieldnotes on key events in which the teachers provided instruction that facilitated academic language in some way. Such key events included: whole group instruction; teacher interactions with individual students; and teacher facilitation of small group work. In general, there were instances of academic language use or instruction in every session I observed, although in some lessons it was more central than in others.

Because one purpose of this study was to explore how teachers scaffold academic language both within and across lessons, I observed entire units rather than only individual lessons. In Señora Gregor’s class, I observed a social studies unit on *cultura* (culture). In Mr Riley’s class, I observed a science unit on balls and ramps. In Ms Cortez’s class, I observed a geometry unit. The theoretical importance of observing sequences of lessons has been articulated in the research (Ball et al., 2008; Christie, 1995; Gibbons, 2003; Lin, 1993; Nassaji and Swain, 2000). Lin (1993), for example, discusses how observing cycles of activity in classrooms allows a researcher to understand how key

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**Table 2. Focal teachers.**

<table>
<thead>
<tr>
<th>Name</th>
<th>Language of instruction—content area of unit</th>
<th>Background information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Señora Molly Gregor</td>
<td>Spanish—social studies</td>
<td>Native English speaker; first year as first-grade teacher; former high school Spanish teacher</td>
</tr>
<tr>
<td>Mr Brad Riley</td>
<td>English—science</td>
<td>Native English speaker; fifth year as first-grade teacher at Hurley Heights; previously taught second and third grades</td>
</tr>
<tr>
<td>Ms Rebecca Cortez</td>
<td>English—geometry</td>
<td>Native English speaker; seventh year as first-grade teacher at Hurley Heights; previously taught fourth and fifth grades</td>
</tr>
</tbody>
</table>
events are shaped by and related to other events within the same cycle. Christie (1995) notes that shifts in language use occur across lessons as students build knowledge together—a shift that is particularly relevant to this study of academic language.

In terms of analysis, I proceeded inductively, so that emerging constructs became more focused as I collected and analyzed my data (Brenner, 2006). In order to build on these constructs, I engaged in ongoing analysis throughout the data collection period, in addition to conducting a focused analysis upon leaving the field. The process of returning to the data as insights develop and constructs change is what Glaser and Strauss (1967) refers to as the constant comparative method.

The data presented in this article came from a larger study of academic language instruction in first-grade DL classrooms. I began by open coding my fieldnotes and observation transcripts into categories of academic language used, keeping in mind the elements outlined earlier: linguistic components, language functions and context-reduced communication. Once I identified instances of academic language use, I then coded the instructional moves teachers made to support the learning of that language. This enabled me to find emerging patterns in teachers’ instruction (Emerson et al., 1995). Linguistic scaffolding was one of the focal instructional moves investigated. As Table 3 illustrates, it was by far the most frequently used instructional move by participating teachers, accounting for nearly half of all moves observed. Quantitatively, therefore, linguistic scaffolding was a prominent characteristic of instruction in the classrooms. Qualitatively, the examples of teacher–student interactions that I present throughout this article are deemed to be representative of the kinds of scaffolding teachers used to support academic language development for Spanish-dominant emergent bilingual students.

### Table 3. Percentage of different types of instructional moves by teacher.

<table>
<thead>
<tr>
<th>Name</th>
<th>Total number of coded moves</th>
<th>Integration of content and language (%)</th>
<th>Dialogic interactions (%)</th>
<th>Movement along the context continuum (%)</th>
<th>Explicit instruction (%)</th>
<th>Linguistic scaffolding (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Señora Molly Gregor</td>
<td>72</td>
<td>36</td>
<td>10</td>
<td>17</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>Mr Brad Riley</td>
<td>233</td>
<td>10</td>
<td>10</td>
<td>21</td>
<td>2</td>
<td>57</td>
</tr>
<tr>
<td>Ms Rebecca Cortez</td>
<td>156</td>
<td>18</td>
<td>6</td>
<td>26</td>
<td>4</td>
<td>46</td>
</tr>
<tr>
<td>(Average)</td>
<td>461</td>
<td>(21)</td>
<td>(9)</td>
<td>(21)</td>
<td>(4)</td>
<td>(45)</td>
</tr>
</tbody>
</table>

Lucero

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As Miles and Huberman (1994) note, researchers can “understand a phenomenon better by grouping and then conceptualizing objects that have similar patterns or characteristics” (249). Through the process of analytic coding (Glesne, 2006; Merriam, 1998), I highlighted the themes that appeared most frequently and significantly across data sources and then elaborated on those themes in analytic memos for each of the units I observed. The construct of macro discourses emerged as a result of such coding. The initial framework included micro-linguistic scaffolding, but it was only as I engaged in the analysis of transcripts that macro patterns in linguistic scaffolding became evident. As discussed earlier, macro discourses continue across lessons and involve the teacher adjusting the amount and type of micro-linguistic scaffolding to respond to children’s changing understanding and use of academic language. As I reviewed transcripts from each unit, it became apparent that such macro discourses were occurring. Specific examples are discussed in the findings section of this article.

Finally, throughout the course of this study, I offered to share analytic memos and article drafts with participants as appropriate and to the extent that they were interested as a form of member checking (Brenner, 2006; Merriam, 1998). Both Señora Gregor and Ms Cortez were asked to see the analytic memos I had written about the unit they taught and then followed up informally with questions and reflections. Their questions were mostly clarifications and nothing in my analysis was significantly changed as a result of their enquiries.

Findings

In all three classrooms, teachers provided oral linguistic scaffolding for emergent bilingual students at both the micro and macro levels (Gibbons, 2006; Nassaji and Swain, 2000). Teachers’ skilful combination of both was supportive of students’ development of content-specific and general academic language, and the following analysis sheds light on ways that teachers in DL and mainstream classrooms instructionally supported emergent bilinguals as they developed academic language.

Micro discourses

The micro discourse moves I considered were orally repeating key terms, restating or rephrasing, and handing responsibility for communication to individual students. These moves are contingent upon and responsive to
student contributions (Bradley and Reinking, 2011), and as such they enabled teachers to accept the content contributions of children while at the same time providing “alternative linguistic forms to encode the learner’s meaning in more context-appropriate ways” (Gibbons, 2006: 128). While teachers’ use of these moves alone did not explicitly teach children academic language, it did represent attention on the part of the teachers to the issue of language in content teaching.

Mr Riley was the teacher who most adeptly engaged in micro-discourse moves (see Table 3). He often repeated key terms, adjusted his rate of speech, or rephrased new academic language into conversational language for children. In the following short snippet from an interaction with a Spanish-dominant boy as part of a whole class discussion, Mr Riley made several micro discourse moves:

Mr. Riley: Tell me about one of the properties you noticed of the ping-pong ball. Oscar?
Oscar: It’s hard.
Mr. Riley: It’s hard. Is that a colour, or a size, or shape or texture? What do you think? Hard. That’s how it looks, or how it feels?
Oscar: How it feels.
Mr. Riley: How it feels. So, when you’re talking about how something feels, you’re talking about the… texture. You’re talking about the texture.

First, he repeated Oscar’s answer. He then identified four possible property categories to which Oscar’s answer could belong: colour, size, shape or texture. When Oscar did not respond immediately to his general prompt of “what do you think?”, Mr Riley narrowed down the choices while also rephrasing them as “how it looks, or how it feels”. In doing so, he shifted from academic back to everyday language, illustrating that linguistic scaffolding does not necessarily progress in a one-way, linear direction (Lantolf and Aljaafreh, 1995). Rather, this and other examples given in this section highlight the ways in which teachers provided message abundance, or repetition of key terms and concepts, through the instructional choices they made (Spycher, 2009). It is also an example of how “an intentional focus on the linguistic features of school science can help students traverse the bridges between everyday and scientific ways of using language as they learn to think like scientists and express their developing understanding of science concepts” (Spycher, 2009: 364).
Indeed, the shift back to conversational language helped Oscar answer, and once he did, Mr Riley repeated his answer for the class once again. He then defined “texture” and recontextualized Oscar’s contribution into a general statement about a possible property of any ball, not just the ping-pong ball. In his final statement—“you’re talking about the texture”—he modelled the academic term he wanted students to use. This opportunity for teacher modelling of key terms is one of the primary benefits of micro-discourse moves such as the ones Mr Riley made in this situation.

Ms Cortez used micro-discourse moves somewhat differently than Mr Riley. In addition to register shifts and recasts, she also often used Spanish to communicate key concepts and new academic language to emergent bilingual students. For example, during the last session of the geometry unit, she was teaching the term “symmetry” to students. Using a grammatically incorrect sentence, she tried to explain the concept to Leo and his partner, Isaiah, by saying, “It’s the same. Los dos lados son los mismos. Que tiene en este lado, tienes que tener en este lado” [The two sides are the same. What this side has, that side has to have too]. This was typical of how she used Spanish in small quantities to communicate information she thought might be confusing for her Spanish-dominant students.

When I discussed this unexpected use of Spanish with Ms Cortez, she explained that she was code-switching more this year partly as a specific support for newcomer Leo and partly because of the implementation of the DL programme. Nonetheless, she noted that she has used some Spanish in her class for several years. She felt it was important because, “this is maths, and there’s a lot of new terminology, and they don’t need to be hearing everything, just everything in English. I think it supports them a little bit if they can hear it in Spanish.” It could be argued that Ms Cortez’s choice to code switch undermined the goals of the language immersion programme. However, I considered it a linguistically responsive instructional move in that its intent was to help students access and understand academic content (Dutro and Moran, 2003). Like all forms of effective linguistic scaffolding, it was based on the needs of specific students; the use of the home language might have been an inappropriate scaffold for more advanced English speakers or for older students.

As the examples in this section elucidate, micro-discourse scaffolding on the part of DL teachers can accomplish multiple goals. First, it allows teachers to accept the content contributions that students make while also drawing on their linguistic abilities, thus furthering both academic knowledge and
academic language. Second, it can help students move beyond the specifics of a given lesson and begin to generalize about the concepts they are learning. The interaction between Mr Riley and Oscar highlighted in the previous section is a clear example of both of these goals. In this way, children not only develop decontextualized language but also a deeper conceptual understanding of key ideas. Finally, the use of micro-scaffolding moves enables students to participate in a literate community (Stahl and Nagy, 2006), which can have important long-term social and academic implications. The clarification that Ms Cortez made for Leo illustrates her attempt to engage him in the maths community of her classroom, an important goal for a newcomer to the country and the English language.

**Macro discourses**

A second level of linguistic scaffolding considered in this study was how teachers provided support for academic communication that was attentive to students’ changing level of conceptual understanding and language proficiency over the course of a unit. I analyzed macro discourses because attending only to data at the micro level would not have enabled me to investigate shifts in discourse over time. To that end, I observed entire units of study and analyzed changes in teachers’ linguistic scaffolding as children became more proficient in the register of the content area and in their use of academic language. I noticed that shifts in language occurred over time as teachers and students built knowledge together (Christie, 1995). This most frequently took the form of teacher-guided reporting or differential press on students to produce more—or more articulate—language within their zone of proximal development and often co-occurred with the use of micro-discourse moves. Teachers’ decisions to press students in particular ways were based not only on the immediate context but also on their knowledge of that student’s level of conceptual and linguistic development relative to the goals of the unit.

For example, early in their units, teachers introduced new content-specific terms they expected students to use in academic discussions and writing throughout the unit. “Sphere” was one such word in the balls and ramps unit, and the exchanges that follow show how it was taken up by students and reinforced by Mr Riley as he mindfully adjusted the amount of linguistic scaffolding he provided over three lessons. The first was from a whole class discussion that took place during the first lesson, wherein Mr
Riley introduced the term “sphere” to students using a concrete object (an inflatable globe):

**TEACHER**
What is the shape that this globe ball is in right now? What would be the name... what would be the name of this shape?

A circle. Now I would like to know if this shape stays the same or if it changes when I blow it up. We all agree this is a circle, right? (blows it up) All right, is it the same? Or has it changed?

It has changed. For our purposes, this shape, you can tell, is different than when it had no air in it. This shape has a different name than when it was flat. It’s very... an important science word is coming. Please do your best to keep track of it. A circle, when it’s inflated, is not a circle anymore. Oscar, this is not a circle. The name of this shape is called (crosses out ‘circle’ on the word wall and changes it to ‘sphere’)

**Xavier:**
(reading) Sphere.

A sphere. The name of this shape is called a sphere. Let’s say it together. Sphere.

**STUDENTS**
A circle

Changed!

In this initial lesson, Mr Riley only held students accountable for repeating the new term. He related the word to the known concept of circle and wrote it on
a card that was added to the science word wall. I considered these moves to constitute a high level of linguistic scaffolding because Mr Riley took primary responsibility for identifying and defining the term, and all students had to do was repeat. As the unit progressed, he provided less scaffolding and expected more oral academic language production from students, as the following data samples illustrate. In session five, he was guiding students to create a word bank in their science journal when the following exchange occurred:

Mr. Riley: All right, there’s one more property up there. Who might know what it is?
Amaury: Size!
Mr. Riley: Amaury?
Amaury: Sphere.
Mr. Riley: Sphere talks about shape. It’s a word that describes the property of shape.

Unlike in the previous exchange, Mr Riley held a student responsible for identifying the correct word and clarified its meaning when Amaury suggested that it was a modifier of size rather than shape. He did not go so far as to redefine “sphere” for the class, but he did remind them—through the use of a micro-discourse move—that a sphere is a kind of shape, thus providing some support for the new term.

In the very next session, an opportunity for an English-speaking student to use the term “sphere” presented itself. However, he did not spontaneously do so. In response, Mr Riley pressed him to come up with it on his own:

Mr. Riley: What was the shape? The shape, Cyrus?
Cyrus: Um, small and round.
Mr. Riley: What’s our describing word for the shape?
Jaime: Sphere!
Cyrus: (repeating) Sphere.
Mr. Riley: Sphere, okay.

There are two important things to note about this final interaction in the sequence; first, Mr Riley provided significantly less scaffolding for the term than he did in either of the first two examples. Rather than using the word “sphere” himself, he asked Cyrus a question that was designed to elicit the word. Second, Jaime, a Spanish speaker, stepped in to help immediately, and Cyrus repeated his contribution. This illustrates a shift in the teacher’s
expectations about how students use academic language and shows how they began to take on that responsibility as a group. In the first two exchanges, Mr Riley emphasized the definition of the word, but in the third he wanted students to use the term in a descriptive context. Thus, he was also helping them understand the different functions that language can serve to accomplish different goals.

Another way in which linguistic scaffolding occurred as units progressed was in teachers’ support for the development of general (rather than content-specific) academic language. Señora Gregor frequently provided targeted support for the development of sentences in the cultura unit and structured her lessons so that academic language learning built on itself from day to day. On the first day of the unit, for example, she put students into small groups and asked them to predict the meaning of cultura. The exchange below is from one small group conversation, which Señora Gregor facilitated:

Sra. Gregor: Quién más tiene una idea? Vamos a hacer así con la primera. [Who else has an idea? Let’s start with the first one]
Beatrix: Creo que cultura es, um, es, um, de Dios. [I think culture is, um, about God]
Sra. Gregor: Beatriz cree que cultura quiere decir Dios. Y por qué piensas que la cultura tiene algo que ver con Dios? [Beatriz thinks culture means God. And why do you think culture has something to do with God?]
Jocelyn: Yo sé! [I know!]
Sra. Gregor: En tu familia te vas a la iglesia? [In your family, do you go to church?]
(Beatriz nods)
Sra. Gregor: Okay.
Jocelyn: Yo también. [Me too]
Sra. Gregor: Tú también? Okay, parte de la cultura de su familia es ir a la iglesia. [You too? Okay, part of the culture of your family is going to church.]

What is notable about this first small group interaction is the way Señora Gregor took primary responsibility for clarifying the message that Beatriz wanted to communicate. Beatriz began by equating culture with God, and Señora Gregor immediately repeated her statement without recasting it for clarity. After a bit more discussion about why Beatriz and Jocelyn associated culture with God, she herself rephrased the overall definition they had created collaboratively as “part of the culture of their families is going to church”.

[Note: The text above is a natural representation of the content of the document.]
This was a subtle but significant shift in terms of refining students’ understanding of the meaning of culture.

The next exchange is from another small group conversation that took place in the following day’s lesson, after groups had shared their predictions about the meaning of cultura with the whole class and Señora Gregor had told them its dictionary definition. In this example, there was a notable shift of responsibility away from Señora Gregor and toward individual students, suggesting that she was adjusting the level of linguistic scaffolding as the unit progressed:

Pedro: Pollo es cu ... cultura? [Chicken is ... culture?]
Sra. Gregor: No, pollo es comida. Pero la comida es parte de la cultura. Entonces, qué puedes decir de pollo? En mi cultura, en mi cultura, quizás ... [No, chicken is food. But food is part of culture. So, what can you say about food? In my culture, in my culture, maybe ...]
Pedro: En mi cultura, pollo es ... cultura. [In my culture, chicken is ... culture]
Sra. Gregor: Pollo es ... no sé. [Chicken is ... I don’t know]
Pedro: Pollo: Pollo es ... [Chicken is ...]
Jesenia: No, cultura es ... comida. [No, culture is food]
Sra. Gregor: Muy bien. En mi cultura, pollo es una comida. [Very good. In my culture, chicken is food]

In this example, English-speaking Pedro struggled to express his understanding of the relationship between chicken and culture. Like Beatriz in the previous example, he confused one element of culture (food) with its overall meaning. Unlike in that first lesson, however, Señora Gregor pressed Pedro to be clearer and provided support for him to do so when she said “en mi cultura ...” [in my culture ...]. Pedro took this sentence structure up but was unable to complete it appropriately. Spanish speaker Jesenia tried to help, but she too was unsure about the conceptual relationship between food and culture. Eventually, therefore, Señora Gregor rephrased the sentence to say, “In my culture, chicken is a kind of food.” She provided a lower level of support than in the first interaction but ultimately communicated the full idea herself.

In the final example from this series of lessons, taken from the next day’s lesson, Señora Gregor engaged in teacher-guided reporting (Gibbons, 2006) with students in a whole class setting. The context, therefore, was one step removed from the small group discussions of the previous two days and
therefore called for slightly more explicit and decontextualized language. The exchange below illustrates the moves Señora Gregor made as she supported Spanish-dominant Leo in reporting his group’s sentence to the whole class:

Leo: Creo que cultura es como la música de reggaeton. [I think culture is like reggaeton music]
Sra. Gregor: Creo que cultura ... [I think culture ...]
Leo: Creo que música es de reggaeton. [I think the music is reggaeton]
Sra. Gregor: Dime otra vez. Creo que cultura ... [Tell me again. I think culture ...]
Leo: Es ... [Is ...]
Sra. Gregor: Es como ... [Is like ...]
Leo: Es como ... [Is like ...]
Sra. Gregor: Como ... [Like]
Leo: La música reggaeton. [Reggaeton music]

In this final interaction, Señora Gregor used micro-discourse moves to press Leo to clearly communicate his entire thought; even though he said it correctly from the outset, she supported him in repeating it step by step. Gibbons (2006) notes that such teacher probing may seem redundant, given that Leo’s message was clear early on. However, such scaffolding serves both pedagogical and linguistic purposes, since it is designed to support students like Leo (as well as those listening to the interaction) in producing language that is “more written-like” (Araujo, 2002). He was able to take on greater responsibility for producing the complete and correct structure (Lantolf and Aljaafreh, 1995) as well as to express a complete idea by himself, which students in the two previous interactions were unable to do. I therefore considered this interaction to constitute the lowest level of scaffolding of the three, since this move toward decontextualized, written-like language is a key feature of academic language, and such instruction has a potentially important role in facilitating academic language development for emergent bilingual children.

These examples of “long conversations” underscore the value of analyzing teacher–student interactions over extended periods of time in order to elucidate the ways in which language use changes as a result of both teacher and student language use. Macro-discourse scaffolding is similar to micro-discourse moves in many ways, but it is driven by shared experience and contributes to the joint construction of knowledge over time. In particular, the
examples given in this section have highlighted key ways in which macro scaffolding contributes to student learning. First, teachers’ appropriately shifting expectations led to greater student responsibility for communicating their understanding as the units progressed. Second, the “long conversations” helped students understand the various functions language can accomplish. Third, as was true of micro scaffolding as well, macro-discourse moves enabled students to learn and become more proficient at using both content-specific and general academic language.

Conversation as performance

A final compelling finding about linguistic scaffolding was that the academic language instruction teachers provided was rarely specifically targeted at the Spanish-dominant emergent bilinguals. As noted earlier, in DL education all students are considered to be language learners, and therefore it is not surprising that this was the case. Typically, teachers taught new vocabulary and structures to all students and then supported their use of it individually or in small groups. Nonetheless, there was ample evidence that the instruction they provided to the whole class or small groups made a difference in the language Spanish speakers orally produced. Through “conversation as performance” (Gibbons, 2006), the teachers supported academic language development for individual students even when those students were not directly involved in the interaction. In the example from Mr Riley’s class examined in the previous section, there was a public interaction between the teacher and a single student that had the purpose of communicating with all students. Although Mr Riley was ostensibly directing his response to Amaury to clarify his misunderstanding about the word “sphere”, he actually clarified the meaning for the whole class. These public conversations served the dual purpose of helping the specific student with whom the teacher was speaking and also communicating with other active listeners. The following is another illustrative example of this:

Mr. Riley: (to whole class) Turn and whisper with your partner, what is something, what are some of the properties that you noticed are the same about these two? What did you notice are the same about these two?

(opportunity for students to pair share)

Mr. Riley: What did you notice, when you were whispering with your partner, how did your sentences start when you were talking about ways that these
properties were the same? How did your sentence start? What did your sentence start like, James, when you talked about how these were the same? How did your sentence start? How did your sentence begin when you were talking about how these properties were the same, Pedro?

Pedro: They both ...

Mr. Riley: Okay, stop there. They both. They both. Did anybody else notice that their sentences started with “they both...”? Did you notice that, Javier? Did yours start with “they both...”? Yours did. Pedro, finish the sentence. They both what?

Pedro: They both have a line through them.

Mr. Riley: Thank you, thank you, thank you. How else are these properties the same? Jesenia?

Jesenia: They both is a sphere.

It is notable that this public conversation was available for others students to hear and learn from. Evidence that they were, in fact, listening and learning comes from Jesenia’s answer to Mr Riley’s follow-up question, in which she used the sentence structure he modelled. This intermediate Spanish speaker met the content goal of comparing two balls and the language goal of doing so in a full—if not completely correct—sentence. Mr Riley, given this valuable information about Jesenia’s engagement and level of proficiency with this structure, would be wise to adjust the amount of support he provided in future lessons and continue to press Jesenia and others to keep improving.

**Discussion and conclusion**

In this article, I have reported findings from a classroom-based study of linguistic scaffolding as a form of academic language instruction. Following Gibbons’ (2006) lead, I explore how teachers’ instructional discourse moves facilitated academic language development for emergent bilingual students both during individual lessons and over entire units. Responsive linguistic scaffolding at both the micro and macro levels is considered to offer critical support for the development of academic language (Genesee et al., 2006; Gibbons, 2003; Yifat and Zadunaisky-Ehrlich, 2008). Thus, instruction within this zone has the potential to be highly effective for emergent
bilinguals, and my findings provide examples of how it can look and sound. Teachers in this programme frequently engaged in mindful and responsive linguistic scaffolding even when teaching social studies, maths and science content, and their instruction was often taken up by students in ways that led to better understanding and use of academic language.

Findings from this study therefore provide an important and much-needed contribution to the field by elucidating how teachers can mediate the linguistic demands of schooling for emergent bilingual children (Gibbons, 2003). These findings have clear implications for classroom practice. First, the examples I have provided in this article do not constitute explicit instruction of language but rather occurred in the course of content instruction. This highlights the fact that teachers can support academic language throughout the school day by making micro-discourse moves that appropriately draw on students’ abilities. In order to do so, teachers must attend to the ways in which students use language to accomplish various functions. Knowledge of students is a key factor in providing linguistic and conceptual support to them.

A related implication is that teachers need to use their knowledge and experience to facilitate oral academic language in ways that make sense in their classroom context, rather than adhering to some prescribed process. The teachers in this study used micro-level scaffolding moves in different ways based on their content area, language of instruction and knowledge of student needs. While they all continued to grow in their understanding of academic language, they were all able to give support to benefit students in various ways.

A third implication is that instruction to support academic language should happen at both the individual child and whole class levels. There was clear evidence that students listened to and supported one another when given the opportunity, as when Jaime helped Cyrus remember the word “sphere” in Mr Riley’s science classroom. This would not have been possible if the interaction only occurred between Mr Riley and Cyrus. Further, the earlier discussion of “conversation as performance” elucidates the ways in which teachers can model conversations with students that are then taken up by students themselves as they practise using new language structures and functions.

Further, my analysis of macro discourses shows that the benefits of such scaffolding are more far-reaching than a given lesson, since they not only support the development of specific academic language but also contribute to emergent bilingual children’s evolving understanding about how to use language and what functions it can accomplish. At the same time, there was
evidence that children were simultaneously developing conceptual understanding through these social interactions (Vygotsky, 1978).

Findings from this study also point to three potential areas for future research. First, given the value of investigating macro discourse over the course of a unit, it would be worthwhile conducting research over longer periods of time with the same cohort of emergent bilingual children. This could garner important insights into how teachers modify their instruction over an entire school year, for example, and also how classroom language use changes. This is especially true because “classroom discourse cannot... be fully understood except as a single long conversation” (Gibbons, 2006: 170). In DL programmes, children often stay in cohorts for a number of years, so it might even be possible to conduct longitudinal research on oral academic language development over long stretches of time as related to sustained, appropriate linguistic scaffolding on the part of teachers.

Second, the findings from this study can also apply to mainstream classrooms with large numbers of emergent bilingual students. Because the instruction observed in these three DL classrooms was rarely focused exclusively on language development, it would be appropriate in mainstream classrooms. For example, the notion of “conversation as performance” is a useful way to conceive of teacher–student interactions that can benefit even those students who do not directly participate in them. Therefore, even in classrooms where most instruction takes place as a whole class or in a child’s second language, teachers can provide meaningful linguistic scaffolding. Further research should examine linguistic scaffolding practices in such classrooms as a support for emergent bilingual students.

Third, peer linguistic scaffolding is a potentially fruitful area for future research. Given the instances I cited in which students supported one another’s language and content development, it would be instructive to look more closely and systematically at how teachers can design instructional situations that foreground peer interactions that can lead to productive academic language use. This is especially relevant in DL classrooms, where all students are positioned as language experts and novices simultaneously.

Finally, this study has two notable limitations. I have presented several examples of instructional moves teachers made and accompanying student responses that suggest emergent bilinguals did begin to develop more sophisticated and articulate language as a result of such instruction. However, I have shared only a small number of examples from my classroom observations. I attempted to include those that were accurately representative of the data set as a whole while also contributing the most to our collective understanding of
linguistic scaffolding and academic language development. Additionally, because my focus was on instruction, I did not code student responses in the same way that I coded and analyzed pedagogical moves on the part of teachers. Such analysis would undoubtedly have enriched the findings of this study. Nonetheless, the portrait of oral linguistic scaffolding presented in this article shows what is possible in DL classrooms and provides a useful starting point for further research in this area.

Notes
1. This and all other names are pseudonyms.

References
Bunch GC (2004) ”But how do we say that?”: Reconceptualizing academic language in linguistically diverse mainstream classrooms. PhD Dissertation, Stanford University, CA, USA.


