Coordinated Translanguaging Pedagogy as Distributed Cognition: A Case Study of Two Dual Language Bilingual Education Preschool Coteachers’ Languaging Practices During Shared Book Readings

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Coordinated Translanguaging Pedagogy as Distributed Cognition: A Case Study of Two Dual Language Bilingual Education Preschool Coteachers’ Language Practices During Shared Book Readings

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ABSTRACT

This study examined how a pair of Spanish/English dual language bilingual education (DLBE) preschool teachers enacted their bilingualism while working cohesively and simultaneously toward common instructional goals. We drew on classroom video data, field notes, and other relevant artifacts collected weekly during shared readings of English- and Spanish-language storybooks over the course of one academic year to document coteachers’ book-based interactions with each other and their students. Guided by translanguaging (O. García, 2009a, 2009b; O. García & Wei, 2014) and distributive cognition (Brown & Campione, 1996; Hutchins, 1995) frameworks, findings elucidate how teachers drew on their own and each other’s dynamic bilingualism through both monolingual and bilingual performances, supporting the coordination of instructional targets (e.g., vocabulary, narrative genre) and instructional practices (e.g., translation, explanation). Findings have implications for DLBE program language policy and practice as they highlight the utility of a bilingual pedagogy.

KEYWORDS

Bilingual; coordinated practice; coteaching; dual language; early childhood; translanguaging

Introduction

In dual language bilingual education (DLBE) programs (i.e., programs in which emergent bilinguals from varying language backgrounds and experiences learn alongside each other toward the goals of bilingualism, biliteracy, and biculturalism [Baker, 2006]), teachers must enact both meaningful and authentic pedagogical and languaging practices that support students’ understanding of new content and language, as well as engage students in authentic and purposeful language use and negotiation of meaning. Emergent bilinguals are young children who have the potential to develop bilingual proficiency through exposure to and support from environments that provide opportunities to use each language in meaningful and authentic ways (Gort, 2006; E. E. García, 1983, O. García, 2009a; Reyes, 2006). When two bilingual teachers work alongside each other in the same classroom within a DLBE context, they must coordinate not only their languaging practices but also their approach to teaching content (Gort & Pontier, 2013). We adopt the term languaging to reflect the fluid nature of actual and local language practices of speakers, i.e., language users, as well as to emphasize speakers’ agency in an ongoing process of interactive meaning making (Canagarajah, 2007; O. García & Wei, 2014; Makoni & Pennycook, 2007; Møller & Jørgensen, 2009). From this perspective, all language users use semiotic resources at their disposal in strategic ways to communicate and act in the world; for bilinguals, these resources are recognized as belonging to two sets of socially constructed “languages” (O. García & Wei, 2014).

Coteaching—an instructional delivery option that involves two or more educators collaboratively working together with the same group of students and sharing the planning, organization, delivery,
and assessment of instruction, as well as resources and the physical space—has the potential to support the unique learning needs of emergent bilingual students in DLBE programs. However, little is known about coteaching practices in DLBE contexts, and more specifically, how DLBE coteachers draw on their own and their students’ linguistic resources when attempting to coordinate their instructional practices, make input comprehensible for students, and engage students in meaningful opportunities to apply their developing language skills and content knowledge. To address these gaps, we examined the ways in which a pair of Spanish/English DLBE bilingual education preschool coteachers—one teacher who was designated as the model of Spanish and the other teacher the model of English—languaged with each other and their students during shared book readings of Spanish- and English-language storybooks as they worked cohesively and simultaneously toward shared instructional goals. Specifically we investigated the following research question: How do DLBE coteachers enact their bilingualism in coordinated practice to support their instructional goals?

Theoretical framework

**Coordinated pedagogy as distributed cognition**

Distributed cognition (Hutchins, 1995)—and particularly distributed expertise (Brown & Campione, 1996)—offers a lens through which to understand how coteachers coordinate their instructional practices when working toward common learning goals. Contextualized within sociocultural theory (Vygotsky, 1978), distributed cognition/expertise perspectives view thinking as socially mediated; that is, it is “shared, spread out, or dispersed between and among people” (Puzio, Keyes, Cole, & Jiménez, 2013, p. 332). As such, activities that involve thinking tend to be collaborative and situated in real practices (Moll, Tapia, & Whitmore, 1993). Using Brown and Campione’s (1996) distributed expertise ethos, we see DLBE teachers and students as bringing a diversity of expertise to the classroom. Brown and Campione’s (1996) research provides a model for designing classroom ecologies where students are supported in learning how to (a) acknowledge various forms of expertise, (b) leverage (i.e., take advantage of and use) their own and each other’s competence, and (c) collaborate in goal-directed activity. Of particular interest to us are the ways in which DLBE teachers in coteaching models use language, a cultural tool that mediates our thinking processes (Vygotsky, 1978; Wertsch, 1991), and other semiotic resources for different instructional and communicative purposes as evidence of their thinking and distributed cognition in action.

Drawing on the work of Roth, Tobin, Zimmermann, Bryant, and Davis (2002), we define coordinated pedagogy as the act of two teachers working in concert to build students’ conceptual understanding by approaching it in multiple ways. Teachers’ practices may manifest themselves as a result of shared space and shared meaning-making resources. Because communication requires the coordinated action of all participants, effective communication is an essential component of coordinated practices. Such coordination must be grounded in such a way “that [all participants] mutually believe that they have understood what [was] meant well enough for current purposes” (Clark & Brennan, 1991, p. 223) in order to forge a mutual understanding. Thus, coteachers can strategically work toward coordinating their practices by drawing on their distributed linguistic, pedagogic, and content expertise.

It is important to understand how communication has been characterized in order to think about the ways that coteachers engage with students and each other. At its broadest point, communication has been described as either directive or transactional. Directive communication is a face-to-face transmission of information from the speaker to the listener, who indicates his receipt and comprehension of the message (Friend & Cook, 2003). This type of communication concludes when the

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1Shared book readings (also known as read-alouds) represent an interactive instructional activity that involves a teacher reading a book out loud to a group of students and often engaging them in questions, sharing related experiences, and making connections to material previously learned. An expanded definition is provided in the Method section.
listener indicates (or when the speaker deduces) that the information has been received and understood. Providing instructions or explanations and giving lectures are common examples of directive communication. This type of communication does not draw on the notion of distributed expertise; rather it views the transmission of thought and knowledge as unidirectional.

Transactional communication, characteristic of distributed expertise and in contrast to directive communication, represents a bidirectional interaction during which participants send and receive information by alternating the role of speaker and listener (Friend & Cook, 2003). The receiver must attempt to adopt (i.e., acknowledge) the sender’s view and assist the sender (i.e., leverage and collaborate) in knowing whether the intended message was accurately communicated by informing the sender of what was comprehended along with her reactions to it. In order to clarify the message, the sender may modify, restate, or reinforce the original message. Shared meanings, through this process of distributed cognition, are created as a result of participants’ mutual influence in this complex and reciprocal process. In Clark and Brennan’s (1991) terms, joint projects—i.e., the enactment of work toward a collective purpose—lead to effective communication as a result of acknowledgements (e.g., ways of showing attention, including continuers and assessments, generally not intended to take a turn at talk), relevant next turns (e.g., answering/responding with the expected information), or continued attention (e.g., getting and keeping a partner’s attention).

This traditional view of effective communication involving either only two interlocutors or only one teacher and a group of students may not accurately characterize the ways that coteachers acknowledge each other’s expertise, leverage their competence, and collaborate in working toward a shared instructional purpose with each other and their students, however. Specifically, it is unlikely that the discourse structure of early childhood classrooms always shows a back-and-forth linear communication in which, for example, the interaction takes place between only the two teachers. That is because teachers not only interact with each other, they also interact with students both simultaneously and separately. Thus, the notion of distributed expertise (a) between teachers and (b) between teachers and students should be evident in coteaching contexts.

Because coteachers are cohesively and simultaneously working to build students’ knowledge of a concept in instances of coordinated practice, they must each attend to not only whether they have understood the other’s message but also whether they believe the students have understood the message and should be able to respond to it. Through the use of multiple and complementary instructional strategies, teachers can work toward constructing an initial message that is comprehensible and, subsequently, achieving effective two-way communication between themselves and their students in support of students’ meaning making. Beyond numerous possible patterns of discourse and the instructional goals and strategies associated with them lie the intricate ways each teacher leverages her own and her partner-teacher’s languaging practices and pedagogical expertise, and specifically, the way that each draws on both her individual bilingualism and the coteaching team’s joint bilingualism to engage in and maintain effective communication.

**Dynamic bilingualism**

Within a translanguaging perspective, languages are not seen as independent systems that people have, but as practices that people use (O. García & Kleifgen, 2010). Translanguaging highlights the readily observable practices in which bilinguals engage in order to make sense of and be understood in their multilingual worlds, all of which are viewed as normative bilingual language behavior. Like monolinguals, bilinguals use numerous strategies for making meaning in addition to drawing on their bilingual repertoire. This involves drawing on linguistic features of what have traditionally been viewed as autonomous languages to create a clear and coherent message. Bilinguals translanguate to facilitate communication with others, to construct deeper understandings, and to make sense of their bilingual worlds (O. García, 2009a).

Because translanguaging refers to the “construction and use of original and complex interrelated discursive practices that cannot be easily assigned to one or another traditional definition of a
language, but that make up the speakers’ complete language repertoire,” (O. García & Wei, 2014, p. 22), bilingual interlocutors must draw on the expertise that each offers. For example, if one interlocutor chooses to use a certain set of features in communicating with another, it requires that the other interlocutor will understand the overall message that is being communicated and that s/he will respond appropriately, if necessary. Thus, the initial interlocutor is acknowledging the other’s linguistic expertise. Similarly, when one conversation participant is unsure of a word or phrase, s/he may leverage someone else’s competence by asking another member to supply it, and the response could be provided by leveraging linguistic and/or semiotic features that both interlocutors understand.

Despite what is known of normative bilingual behavior, DLBE program design is rooted in second language acquisition research, which conceptualizes individual languages as distinct structures or systems to be drawn on (Pennycook, 2010). As such, bilingualism is viewed in relation to monolingual norms (i.e., that bilingualism is the sum of two languages; Grosjean, 1989) and use of each language is artificially separated by time, space, or teacher. The result, then, although intended to promote an additive space (Lambert, 1974), is one that reifies monoglossic ideologies of bilingualism as “double monolingualism” (Gort & Sembiante, 2015; Heller, 2006).

A systematic search of relevant literature regarding DLBE teachers’ complex languaging practices during instructional interactions with students, whether solo or coteaching, revealed that teachers exploit their dynamic bilingualism in various ways (Gort & Pontier, 2013; Canagarajah, 1995; Kang, 2008; Qian, Tian, & Wang, 2009; Raschka, Sercome, & Chi-Ling, 2009). Specifically, teachers draw on features characteristic of traditionally recognized autonomous languages both within and across utterances; engage in parallel bilingual conversations (i.e., a type of bilingual talk wherein each person has at least receptive proficiency of both languages, productive proficiency in at least one, and performs monolingually in a different “language” during conversation; Gort & Pontier, 2013); use various discourse markers; translate; and repeat each other. In these ways, teachers recognize the skills that each other brings to the interaction, and they are able to draw on their distributed linguistic expertise.

Research further shows that teachers draw on their own and students’ bilingualism during instruction for a variety of pedagogical and nonpedagogical functions serving three overarching purposes: content development, language and literacy development, and sociocultural integration. When fostering content development through the use of translanguaging pedagogy, teachers leverage their distributed linguistic, pedagogic, and content expertise by introducing new words, translating material, repeating material, checking for understanding, clarifying, modeling, correcting, providing new information, highlighting material, providing instructions, and drawing on their students’ bilingualism to ask for translation help (often referred to as bilingual label quests; Creese & Blackledge, 2010, 2011; Lee, Hill-Bonnet, & Gillispie, 2008; Martin, 1999). When fostering language development, teachers explain linguistic forms and purposefully model both monolingual use of one of the classroom languages (Creese & Blackledge, 2011) as well as authentic ways of language and semiotic features, reflecting and modeling their knowledge of the sociocultural and linguistic complexity of their communities (Auleear Owodally, 2012; Creese & Blackledge, 2010, 2011; Saldaña & Méndez-Negrete, 2005; Sayer, 2013). Finally, teachers foster sociocultural integration by drawing on students’ emergent bilingualism and by strategically leveraging multiple semiotic features, reflecting and modeling their knowledge of the sociocultural and linguistic complexity of their communities (Auleear Owodally, 2012; Creese & Blackledge, 2010, 2011; De Mejía, 1998; Kang, 2008; Probyn, 2009; Sayer, 2013), allowing students to operate at rich cognitive and cultural levels (Forman, 2007).

Although previous studies have investigated the use of two languages in classroom settings, their focus has tended to be on the students, not on teachers (see, for example, Fitts, 2006; Martin-Beltrán, 2009, 2010; Swain & Lapkin, 2013). These studies draw conclusions that have important implications for teachers of emergent bilinguals but are done so as a result of systematically investigating student languaging. The current study differs in that it focuses on a pair of coteachers working alongside...
each other and serving as language models for the students in their classes. Although some research has explored coteaching in bilingual academic contexts (e.g., Daniel, Martin-Beltrán, Peercy, & Silverman, 2015; Honigsfield & Dove, 2008; Martin-Beltrán & Peercy, 2012), studies have not focused on teachers’ pedagogical and languaging practices in the act of teaching. So, despite a small exploratory base of coteachers in DLBE settings, the ways that those coteachers languaged remains uncharted. Thus, while previous studies have focused on (a) coteachers in classrooms together, and (b) the ways that [solo] DLBE teachers negotiate the language and content learning needs of their students, how DLBE coteachers strategically align their practices to support students’ meaning making and language learning, which includes the ways that they enact bilingual languaging practices, has yet to be systematically examined. It was this particular investigative focus that we undertook.

**Method**

**Setting**

The study, part of a two-year ethnography of the language and literacy practices of young emergent bilinguals and their teachers, took place in a Spanish/English dual language bilingual education (DLBE) preschool program in a multilingual and multicultural community in the southeastern United States. A DLBE program promotes bilingualism and biliteracy through the integration of students from two home language backgrounds and the strategic and (usually) separate use of students’ home languages for instruction. This program differs distinctly from transitional models of bilingual education in which children’s home language is temporarily used as a medium of instruction until children are thought to be proficient enough in the majority language (which, in the case of the United States, is English) to cope in mainstream, English-medium education.

A few features distinguish the focal program from typical DLBE models. First, the year-round program serves children as young as 6 months old through the end of preschool, whereas most bilingual programs in the United States are implemented in the elementary (K–6) grades and run through the traditional nine-month academic calendar. Second, the program’s language policy designates each teacher as a monolingual model of one of the instructional languages, Spanish or English, and pairs teachers in each classroom so that both languages are represented. Reflecting this paired monolingual language designation, coteachers follow a one-teacher/one-language approach, and each teacher takes turns leading the week’s large-group activities on a weekly basis. However, because both teachers (a) are present in the classroom throughout the day, (b) are expected to model their designated language in their interactions with children and each other, and (c) participate in all class activities to varying extents, both languages are used for a variety of purposes, creating a bilingual instructional context in the classroom. Despite teachers’ generally (productive) monolingual performance of their designated language, their bilingual skills are evident when interacting with students and colleagues who address them in their non-designated language. Thus, while the two instructional languages are separated by teacher designation, they are both used widely—and oftentimes concurrently—in classroom interactions.

**Participants**

The focal classroom consisted of a multi-age group of 17 emergent bilingual students, ranging from 3:03–4:11 years at the beginning of data collection in September 2011. We intentionally use the term emergent bilingual to signify children’s learner status and do not attempt to ascribe language dominance to our focal participants, which, in any case, would be difficult to measure accurately in this age group and, perhaps more importantly, would risk reifying monolingual language ideologies of bilingualism (e.g., Martínez, 2013; Martínez, Hikida, & Durán, 2015). Children came from homes where parents/guardians spoke Spanish (n = 6), English (n = 2), and both English and
Spanish \((n = 9)\). Sixteen students came from Latino cultural backgrounds representing Argentina, Cuba, Curacao, \(^2\) the Dominican Republic, Honduras, Nicaragua, Peru, and Venezuela. One student identified as White of European heritage. To support a socioeconomically diverse student population, the school offers 25% of their enrollment slots to children from families who pay tuition based on an annual income scale and 25% to children whose families pay full tuition. The remaining 50% of slots are subsidized by county, state, and federally funded programs such as Voluntary Prekindergarten (VPK), Head Start, and Early Head Start. The class reflected this socioeconomic diversity.

Teacher participants included two Spanish-speaking Latina females who were bilingual in Spanish and English. The Spanish model teacher, a native of Nicaragua who had 10 years of experience teaching prekindergarten in her 16 years in the United States, was 30 years old at the time of data collection and had earned an Associate of Arts degree in early childhood education from a local community college. The English model teacher had 3 years of experience teaching prekindergarten and kindergarten in her 7 years in the United States after arriving from Ecuador. She was 25 years old and had earned a Bachelor of Science degree in early childhood education from a local state university.

**Data collection and analysis**

Data for this study, collected by the first author and two trained graduate students, come from video-recorded shared book-reading activities documented during the 2011–2012 academic year in one preschool classroom. We placed a digital video camera on a tripod to the side of each reading activity and sat beside the camera to take field notes. In doing so, we served the role of nonparticipant observers, attempting to maintain our distance from the children and teachers while they engaged in the activity. Shared reading occurred daily, led by the teacher whose designated language reflected the language of the week (i.e., the Spanish language model led the activity on Spanish weeks) with support from the partner teacher. During the activity, the students sat in an open area of the classroom in a circle facing inward so that all participants, including the teachers, could see one another. The lead teacher was responsible for introducing the book, reading the book aloud, asking questions that served to both build students’ background knowledge and check their understanding, fielding student questions, responding to student comments, and concluding the activity. The partner teacher typically participated in the activity by checking for understanding and helping to build background knowledge. Each shared book-reading activity lasted approximately 15 minutes. Of the 24 (13 Spanish, 11 English) read-alouds observed in the focal classroom, 12 (six Spanish, six English) involved both of the focal teachers, resulting in approximately 6 hours of video and 16 pages of field notes. The remaining read-alouds included substitute teachers and/or guest readers; these were not included in our analyses.

To increase trustworthiness of the research, we engaged in triangulation by drawing on classroom video data and field notes to document the interactions in which teachers engaged with each other and students during shared reading sessions. We defined the unit of analysis as a thematically bound (i.e., same conversational topic, without interruptions) instance of coordinated practice involving both classroom teachers. We first identified all instances of teachers’ coordinated practices in the shared-reading video data set. Next, we indicated whether teachers’ coordinated practices were academic in scope (i.e., practices that were language or book related) or not, excluding instances that did not fit these criteria (e.g., related to behavior management, general activity orientation, or organization) since the focus of the study was teachers’ academic goal-oriented work. Within relevant interactions, we transcribed verbatim all teacher and child talk and integrated all extra-linguistic interactional features (e.g., gestures and other semiotic resources) documented across data sources.

\(^2\)Although natives of Curacao typically identify as Dutch, this family identified as Latino.
An initial pass of the data allowed us to explore and map out the instructional goals that teachers worked toward and the strategies they enacted toward those goals. We initially borrowed the construct of instructional targets—the particular language and literacy skills that are central to children’s language and literacy development and that capture the content-related focus of teachers’ book-related talk during read-alouds—from McGinty, Petit, Gosse, Pentimonti, and Justice’s (2011) Explicit Language and Literacy Instruction Techniques (ELLIT) measure. Instructional targets comprise four domains: phonological awareness, print knowledge, vocabulary, and narrative. Instructional strategies represent different ways that teachers may support children’s learning (McGinty et al., 2011) and include orient/identify, define/elaborate, generalize, and analyze/reason. This framework served as the basis for our coding but was modified based on what the data suggested, as the domains in Table 1 show. Specifically, we used the instructional target narrative genre to encompass what McGinty et al. referred to as print knowledge and narrative, and we added translation and rephrasing to denote language-based instructional strategies that were not represented in the original coding scheme. Moreover, Table 1 highlights instructional strategies that comprised the umbrella terms mentioned (e.g., making a connection was one form of generalizing).

A subsequent pass of the data focused on characterizing the ways that the teachers drew on their bilingualism within instances of coordinated practice to support their instructional goals. We first noted whether teachers (as a pair) engaged in monolingual or bilingual interaction. If the pair interacted in and through one common language, we noted whether or not the language was the designated instructional language; in most cases, this paralleled the language of the focal text. If the teacher pair integrated the use of both languages, resulting in bilingual interaction, we noted whether this was the result of each teacher engaging in monolingual performance (e.g., both teachers used only Spanish, or each teacher performed monolingually in her designated instructional language) during interaction, or the performance of bilingual speech (i.e., used features traditionally ascribed to English and Spanish within a given instance of coordinated practice) by one or both teachers. For example, a bilingual performance sometimes involved the use of features of both English and Spanish within one turn (one teacher talking without interruption) and other times comprised one turn consisting of only traditionally ascribed English features and another turn consisting of only traditionally ascribed Spanish features.

In order to seek, examine, and account for contradictory evidence in the analysis to ensure that researcher bias did not interfere with or alter our perception of the data, all coding was originally completed by the first author and subsequently and iteratively checked by a bilingual graduate student who was familiar with the larger project and this particular analysis. This process allowed us

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<th>Language pattern</th>
<th>Definition</th>
<th>Instructional target</th>
<th>Instructional strategy</th>
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<tbody>
<tr>
<td>Coordinated monolingual</td>
<td>Both teachers perform monolingually in the same language (e.g., both teachers use only features traditionally ascribed to Spanish)</td>
<td>Vocabulary, narrative genre</td>
<td>Repetition, activation of prior knowledge, gesturing, making text-to-world connections</td>
</tr>
<tr>
<td>performance (of same language)</td>
<td>Each teacher performs monolingually in her designated language (i.e., the Spanish model uses only features traditionally ascribed to Spanish, the English model uses only features traditionally ascribed to English)</td>
<td>Narrative genre</td>
<td>Translation, explanation, rephrasing student contributions, highlighting cause/effect relationships, highlighting student responses</td>
</tr>
<tr>
<td>Parallel monolingual</td>
<td>Both teachers perform bilingually; or one teacher performs bilingually, the other teacher performs monolingually</td>
<td>Vocabulary, oral language, narrative genre</td>
<td>Translation, repetition, drawing [student] attention to illustrations, recalling information</td>
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to refine our developing understanding of the phenomena to address all cases in the data (Guba, 1981), yielding an initial interrater reliability of 91% (Miles & Huberman, 1994); disagreements were subsequently reconciled through conversation.

In order to discern conceptual similarities, to refine the discriminative power of categories, and to discover patterns in our data, we engaged in constant comparative analysis (Glaser & Strauss, 1967). The process involved comparing data within a single teacher during a single read-aloud, across the teacher pair during a single read-aloud, within a single teacher across several read-alouds, and across the teacher pair across several read-alouds. Thus, we initially attempted to understand what was occurring within each individual read-aloud by describing the practices of one teacher, comparing that set of practices to those of the other teacher, and then comparing their practices when viewed together (i.e., as one teaching unit). After developing nascent patterns of practices within one single read-aloud, we compared those to each teacher’s practices from one read-aloud activity to another, culminating in different clusters or profiles. Finally, we looked at combined teachers’ practices across all read-aloud activities, allowing us to see whether themes emerged in certain contexts (e.g., during a read-aloud of a book written in Spanish or during a read-aloud of a book written in English) and, accordingly, to determine if what we found was part of a larger pattern or an example of a negative case. To generate a grounded mapping of teachers’ languaging, each languaging practice was cross-referenced with the corresponding instructional targets and instructional strategies to search for patterns related to how teachers leveraged their bilingualism and each other’s pedagogical expertise to support their instructional goals. The confluence of these practices, including languaging and instructional targets and strategies, ultimately supported the analysis of DLBE coteachers’ coordinated practices.

Our interpretation of the data is substantiated by the analytical procedures followed for assessing the genuineness and credibility of the research described, including triangulation, the use of contradictory evidence, and constant comparison. These procedures for ensuring rigor in qualitative research suggest that our findings present an accurate representation of the phenomena under study. That is, the examples presented in the following are representative of the data as a whole and not outliers.

Findings

Because we were interested in identifying both teachers’ instructional foci and the ways that their bilingualism served as a resource in support of their coordinated practices toward those goals, in this section we embed findings related to both of these central areas of investigation. That is, we view teachers’ coordination of instructional goals and their translanguaging practices as manifestations of distributed cognition.

Throughout all instances of coordinated practice, teachers languaged in ways that reflected their collective bilingual repertoire, drawing on their distributed bilingual expertise, manifested through both monolingual and bilingual performances. To that end, there were instances of coordinated practice in which both teachers drew on features of the same instructional language (e.g., both teachers used Spanish exclusively), instances when each teacher drew on only features of her designated language (i.e., the Spanish model performed monolingually in Spanish and the English model performed monolingually in English), and others in which one or both teachers performed bilingually. This meant that sometimes teachers made languaging choices that aligned with their official language designation, while other times they made choices that extended beyond that designation (but not their linguistic repertoire). In short, while enacting their bilingualism in numerous ways (e.g., individually and collectively, receptively and expressively), teachers not only made use of the semiotic resources to which they had access in complex and dynamic ways but also of each other’s pedagogical expertise and children’s contributions as shared resources in support of their instructional goals. Teachers’ languaging patterns are outlined in Table 1 and detailed in the following section.

While our categorizations may seem to reify monolingual norms as we distinguish Spanish-language from English-language [monolingual] performances, we choose to use these terms to
capture the nuances of teachers’ dynamic languaging—i.e., the calling upon by bilinguals of different social features and semiotic resources in a complex and seamless network of multiple semiotic signs to suit their immediate tasks and communicative needs (Flores & García, 2013; Flores, Garcia, & Woodley, 2015; O. García & Wei, 2014)—evidenced in the data.

**Leveraging bilingualism as distributed cognition**

**Coordinated monolingual performances of the same instructional language**

The two teachers enacted their bilingualism in coordinated monolingual interaction when both only drew on features of one of the two classroom languages in collaborative pursuit of their shared instructional goals. Instances of coordinated practice during which both teachers engaged in such coordinated monolingual speech were observed within contexts of [monolingual] English-language and Spanish-language book read-alouds. Individually, this meant that one of the teachers chose to depart from her designated language (e.g., the English model performed monolingually in Spanish throughout an instance of coordinated practice) while her partner teacher performed monolingually in her designated instructional language. As such, there were instances of coordinated practice during which teachers only drew on features traditionally ascribed to Spanish and others where they only drew on features attributed to English, wherein the teachers leveraged each other’s instructional practices—often in support of multiple instructional targets, typically students’ language and literacy development—in unique ways depending on the target language. In each case, the teacher departing from her target language evidenced her linguistic flexibility and enactment of bilingualism as a resource that supported the pair’s collaborative work toward various instructional goals.

**Supporting children’s vocabulary development through coordinated monolingual performances in Spanish.** Teachers’ coordinated languaging practices at times reflected monolingual performances of Spanish to address instructional targets related to vocabulary development. For example, in Spanish, the English model provided a semantically related word or affirmed a student’s response when her partner read Spanish-language books. In both cases, the English model’s languaging simultaneously showcased her receptive bilingual proficiency (i.e., she understood what was said in order to respond appropriately) as well as her expressive bilingual abilities (i.e., she provided a word to support students’ meaning making) in Spanish, as evidenced in the following representative excerpt.

During a reading of *Quinito día y noche* (*Quinito Day and Night*; Cumpiano, 2008), the Spanish model demonstrated the antonym pair *subir/bajar* (“up/down”) by standing up and sitting down, inviting students to do the same, which served to reinforce students’ understanding of relevant vocabulary.

1 SpM [asking EngM] ¿Cuál era la otra palabra? *(What was the other word?)*
2 EngM Subir. *(To raise.)*
3 SpM [Stands and says] Subir. *(To raise.)*
   [Students stand with her.]
4 SpM [asking students] ¿Cuál era la palabra opuesta de subir? *(What was the opposite word of to raise?)*
5 Stu Bajar. *(To lower.)*

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In the featured transcripts, SpM refers to the Spanish model, EngM to the English model, and Stu to students. Researcher notes are presented in [brackets]; English translations of Spanish speech are *(italicized within parentheses)*; <overlapping speech is noted by chevrons>.
This excerpt exemplifies how the teachers worked toward the same instructional target (i.e., vocabulary) using complementary instructional strategies (i.e., the Spanish model’s questions and the English model’s provision of an appropriate response in the target instructional language, Spanish) while drawing productively on monolingual languaging performances in Spanish throughout the entire instance of coordinated practice. The Spanish model first asked the English model to recall information (line 1), and the English model provided an appropriate answer (line 2) in Spanish, keeping the line of questioning on track without any pauses. This exchange then served as a model for the Spanish teacher’s next question (line 4), which is answered by a student (line 5).

**Supporting children’s narrative genre and vocabulary development through coordinated monolingual performances in English.** Teachers engaged in coordinated monolingual English interactions only when reading English-language books. In these instances, the teachers’ coordinated monolingual performances leveraged the English model’s use of illustrations to contextualize the main character’s actions; teachers also rephrased and repeated each other’s contributions to promote students’ growing understanding of story events and vocabulary development.

In the following excerpt, from a reading of the English-language book *The Little Mouse, the Red Ripe Strawberry, and the Big Hungry Bear* (Wood & Wood, 1984), teachers worked collaboratively to support multiple goals, including students’ acquisition of new vocabulary and genre-based instructional goals. The Spanish model languaged monolingually in English to explain/rephrase when the English model asked questions while reading books in English. The Spanish model’s use of monolingual English supported a collaborative focus on story events as she rephrased some of the English model’s utterances, providing greater opportunities for students to make meaning of the events transpiring in the story by hearing information presented in various ways.

Together, through their coordinated monolingual English languaging and incremental additions to each other’s utterances, the teachers attempted to support students’ understanding of the events in the story. The English model set the stage by summarizing what had just occurred in the book (line 1). The Spanish model then provided a morphological variation of the word half (line 2; halves), both clarifying and confirming the English model’s first utterance. After establishing that the strawberry was cut in half—affirming the Spanish model’s utterance (line 3)—and listening to the first student’s contribution (line 4), the English model asked a question that required students to identify the cause (line 5) for the strawberry having been cut in half. Stu2 provided a response (line 6), and the Spanish model used a discourse marker (line 7; Mmmm) to show her approval and acceptance of Stu2’s contribution. The English model also confirmed Stu2’s input (line 8), to which the Spanish model added information, naming the action (line 9; sharing) provided by Stu2 (line 6). The English model then built on the Spanish model’s utterance, explaining how the two characters could share (line 10), which is confirmed by the Spanish model in her final utterance (line 11).

**Parallel monolingual performances of different instructional languages**

When both teachers maintained their designated language, a languaging practice only observed when reading Spanish-language books, they followed monolingual languaging norms for their respective
designated language, or a linguistic practice in which two speakers effectively communicate in what are commonly recognized as two autonomous languages. While each teacher chose to perform monolingually to address a particular instructional target during these instances of coordinated practice, they collectively produced bilingual speech. Moreover, although each teacher spoke monolingually, she interacted bilingually, modeling her receptive proficiency in her nondesignated language (e.g., the Spanish model listening to and comprehending monolingual English speech) and her expressive proficiency in her designated language (e.g., the English model engaging in monolingual English speech). In this way, both teachers were leveraging their own and the other’s dynamic bilingualism to collaborate in goal-directed activity. Specifically, teachers enacted this form of collective bilingualism while focusing on narrative genre-based instructional targets. The teachers translated each other’s contributions, asked key questions that maintained the flow of the interaction, and also provided explanations.

In the following example from *El granjero Simón* (*Farmer Simon*; Chocolate, 2011), the teachers collaboratively addressed narrative genre-based instructional targets by highlighting student participation, translating each other’s and students’ contributions, and asking relevant questions to support students’ meaning making. The Spanish model coteacher led a discussion of the necessary elements for plants to grow, and students’ responses reflected monolingual language norms in both Spanish and English. The teachers’ monolingual performances in their respective designated languages supported a bilingual space for interaction, thereby inviting the expertise/experience of everyone present during this read-aloud.

The Spanish model coteacher began the interaction by asking what plants need to grow (line 1) and followed each student utterance by first repeating their answer (lines 3a, 5a, 7a) and then asking for other possible answers (lines 3b, 5b, 7b). On two occasions (lines 5a, 7a), while languaging monolingually, the Spanish model coteacher translated students’ contributions from English to
Spanish, acknowledging their expertise, and expanded students’ bilingual vocabulary by sharing her own content area and linguistic expertise. Although Stu2’s second contribution went unnoticed (line 8), both teachers highlighted a common goal by leveraging their shared languaging practices, acknowledging and affirming Stu3’s contribution (line 9) in their respective designated languages (lines 10 and 11). Additionally, the Spanish model’s affirmation served as a translation (line 11a) of Stu3’s contribution in which she shared her bilingual expertise, to which she added a request to explain a cause-and-effect relationship (line 11b). Following Stu3’s response to the Spanish model’s second question, the Spanish model provided the explanation of the cause-and-effect relationship (line 13). Stu4 added an idea (line 14) to which the English model confirmed his response (line 15a) in English and then asked a rhetorical question (line 15b) that supported both Stu4’s contribution and the Spanish model’s previous question and response regarding a cause and effect relationship. While continuing to maintain her designated language and drawing on her own dynamic bilingualism, the Spanish model leveraged the English model’s contribution and responded (line 16) by taking up and expanding the explanation that the English model had begun to construct.

**Coordinated bilingual performances**

At other times, teachers performed bilingually during instances of coordinated practice regardless of the language of the book being read. Specifically, teachers leveraged their bilingual performances to support students’ oral language development, vocabulary development, and narrative genre development. Drawing on both their own and each other’s languaging practices and content and pedagogical expertise, they collaborated in goal-directed activities.

**Supporting children’s oral language, vocabulary, and narrative genre development through coordinated bilingual performances.** As teachers collaborated to address the instructional target of vocabulary during read-alouds of Spanish-language books, the English model used bilingual speech to reinforce, translate, and define key vocabulary. Similarly drawing on her bilingualism to support the instructional target of story events, the English model commonly asked students to make an inference, clarify their statements, draw their attention to the book and its illustrations, and make connections to other books, as well as translated her own and the Spanish model’s contributions to interactions around English-language books.

The Spanish model also commonly used bilingual speech as teachers were working toward the instructional targets of phonological awareness, vocabulary, and story events when the English model read English-language books. The Spanish model contributed to supporting these collaborative instructional targets by providing a definition in Spanish of the target vocabulary word and a subsequent restatement of the word in English.

For example, in the same read-aloud introduced earlier of *The Little Mouse, the Red Ripe Strawberry, and the Big Hungry Bear* (Wood & Wood, 1984), the teachers used their collective bilingual expertise to make cross-linguistic connections to teach vocabulary in the service of supporting children’s oral language development and comprehension of the story. In the following excerpt, the teachers react to the students’ responses related to the meaning of the word guarding.
Through this bilingual performance, the Spanish model accomplished a number of tasks, providing information to both the English model and students. Both teachers provided a definition (lines 1, 2a, 8a) and used a character’s actions from the book to supply a textual example (lines 2b, 4, 8b) to support students’ understanding of cause-and-effect relationships occurring in the story that had the potential to build their understanding of the focal word guarding. Additionally, when the Spanish model provided a definition (line 1), she strategically (although implicitly) highlighted the word’s cognate status (i.e., guard/guardar) by translating it to Spanish, providing an opportunity for students to make cross-linguistic connections. In the English model’s next turn (line 2), she loosely translated what the Spanish model had said, taking advantage of her understanding of the word’s meaning. Later, the English model checked her pronunciation of guarding (line 4), and the Spanish model accompanied her attempts (line 5), providing the pronunciation again in English to serve as a model both for the English model and for the students.

Next, the English model took up the idea of how the mouse was guarding his strawberry and changed her focus to a specific aspect featured in the book’s illustrations: thumbtacks that were carefully placed all around the strawberry. The teachers worked collaboratively to support students’ understanding of another key vocabulary word, thumbtacks (tachuelas in Spanish), in order to ultimately support their awareness of the mouse’s behavior (why he was guarding the strawberry) and the choice he made at the conclusion of the story (to eat the strawberry).

Throughout the interaction, each teacher modeled her comprehension of both instructional languages and ability to communicate bilingually while enacting a number of instructional strategies to support students’ understanding of relevant vocabulary words. The English model first drew students’ attention to the illustration (line 9) and then asked the class, including the Spanish model, to provide a label (line 11; ¿Cómo se dice tachuelas? [How do you say thumbtacks?]) after receiving an off-target response from a student (line 10). Following the Spanish model’s inquiry for more information (line 12), the English model showed a page highlighting an illustration of thumbtacks

While there is mention of a bear throughout the story, the bear is never depicted in the illustrations.
surrounding the strawberry (line 13). When the Spanish model’s suggestion (line 14) was rejected (line 15), her subsequent response (line 16) and departure from the circle showed that she now understood what her partner teacher was referring to, even though she did not yet provide information to appropriately respond to the English model’s question. The English model again prompted students to use the illustrations (line 17), but another student responded with an off-topic answer (line 18). The Spanish model returned and provided a real-life tachuela (i.e., a text-to-world connection/realia) and strategic bilingual translation (line 19; These are thumbtacks. En español, tachuelas.). The contributions from Stu3 (lines 21 and 23) showed children’s coconstruction of meaning with regard to the form and potential danger of the focal object/word. The English model subsequently took up these responses, affirming students’ contributions and restating the equivalent English word, and used realia—real-life objects—to strengthen students’ associations between the Spanish and English labels and the object itself (lines 22 and 24).

In sum, instances of coordinated practice found in our data evidenced teachers drawing on their own, the other’s, and their shared languaging practices and relying on their collective content and pedagogical knowledge.

**Discussion**

In this study, teachers displayed and negotiated their expertise by drawing on their own and each other’s bilingualism in coordinated practice. In so doing, teachers engaged in flexible and fluid language performances that sometimes appeared to reflect monolingual languaging norms and other times reflected those of bilingual languaging. In the case of parallel monolingual performances, bilingualism became a collective activity, whereby each of two teachers performed monolinguistically but interacted in a way that demonstrated their shared bilingualism. Through these fluid and dynamic language performances, these DLBE coteachers were able to acknowledge each other’s expertise, harness the competence of others, and collaboratively foster achievement of mutual goals (Brown & Campione, 1996).

Our findings highlight the “new language practices that make visible the complexity of language exchanges among people with different histories, … [releasing] histories and understandings that had been buried within fixed language identities constrained by nation-states” (O. García & Wei, 2014, p. 21, italics in original). The teachers did not always adhere to their designated language and thereby modeled authentic bilingual ways to engage in conversation and to share knowledge. Even when they did maintain their designated languages, the resulting interactions represented the intricate ways in which bilinguals language—for example, they may produce speech that draws exclusively on features traditionally associated with one autonomous language while listening to (and comprehending) features traditionally associated with another autonomous language. Such a practice leverages the language expertise of both teachers and their students as they engage in interaction. Moreover, teachers’ coordinated translanguaging practices served as a model of strategic, purposeful, and dynamic bilingualism for children growing up with and learning through two languages. Teachers provided students multiple opportunities not only to hear the complex ways in which proficient bilinguals language but also to exploit the linguistic practices that can be heard and used regularly throughout the surrounding multilingual community and children’s homes.

The documented inconsistencies between the focal teachers’ “official” designation as monolingual models of each of the DLBE program’s instructional languages and their actual language use revealed teachers’ agency in the negotiation and interpretation of school-level language education policy (Menken & García, 2010), as well as their resistance of such policies through their enactment of coordinated, complex, and goal-oriented bilingual languaging that facilitated children’s meaningful engagement with book-based activities. Drawing on all of the semiotic resources at their disposal toward common instructional goals, the focal teachers demonstrated fluid bilingual identities that transcend the artificial linguistic borders created by the program’s language separation policy, illustrating how “[the languages of bilinguals] do not exist in different worlds, or even domains
[as] they function as part of an entire linguistic repertoire, in interrelationship, to make meaning” (O. García, 2013, p. 111). Thus, when bilinguals interact, their linguistic repertoire allows for the enactment of the same practices in which monolinguals engage and an arguably more sophisticated set of practices, which includes drawing on different social features traditionally ascribed to one language or another in a complex and seamless network of multiple semiotic signs in dynamic and meaningful ways (O. García, 2009a, 2009b, 2013; O. García & Wei, 2014; Gumperz & Cook-Gumperz, 2005). Given the lack of research support for the artificial and rigid separation of languages undergirding one teacher/one language instructional language policies in early childhood and elementary DLBE bilingual education programs (Cummins, 2005), and the growing recognition that “the use of translanguaging in education constructs a third space that makes possible the development of students’ dynamic language and cultural practices, and thus a meaningful education” (Flores & García, 2013, p. 255), our findings call into question the validity of privileging monolingual linguistic norms in multilingual environments where individuals with wide repertoires of language practices and a range of bilingual expertise and experiences can naturally, purposefully, and effectively engage in a flexible bilingual pedagogy.

It is worth noting the findings that (a) teachers engaged in coordinated monolingual English interactions (i.e., only English was used) only when reading English-language books, and (b) teachers maintained their designated language (i.e., the Spanish model used only Spanish and the English model used only English) only when reading Spanish-language books. Although we did not interview teachers to discern their perspectives, we offer our interpretations based on language patterns observed. Regarding the finding that paired monolingual English interactions were only observed during readings of English-language books, it may be that the teachers wanted to highlight the [English-language] strengths of some of the students or to be responsive to their growing general preference for English. Alternatively, it could be that teachers wanted to provide monolingual English spaces for children who did not use English outside of the school setting. Regarding the finding that teachers engaged in parallel monolingual performances only during readings of Spanish-language books, the English model may have been attempting to adhere to the program’s policy of language separation and to preserve the presence of English-language support in the activity.

The finding that teachers sometimes translated each other’s contributions is of particular interest given our understanding of translation as a contested instructional method (Legaretta, 1979; Phillipson, 1992). Traditionally, and especially in the foreign language and second language acquisition literature, translation has been viewed negatively. There are at least three reasons for this view of translation in the academic setting: (a) the hegemonic political priorities of those in power; (b) a monolingual deficit perspective of translation as interference in engaging in bilingual practices; and (c) an association of translation in general with concurrent translation, a practice in which teachers present material in two languages using word-by-word or sentence-by-sentence translation. In the past 20 years, however, research has shown many positive uses of translation in academic settings (Shamash, 1990). Contrary to past belief, leveraging bilingual practices, including strategic translation, often facilitates the process of enhancing one’s bilingual proficiency. With the presence of two teachers and a class of students, it becomes more possible to draw on all of the expertise (e.g., content and language knowledge/experience) present. This study adds to our knowledge of translation as an instructional strategy by highlighting its utility when two DLBE bilingual education coteachers coordinate their practices, thereby providing evidence of distributed cognition.

In general, the evidence presented here adds to the recent literature on the utility of translanguaging as an instructional practice (Gort & Pontier, 2013; Gort & Sembiante, 2015; O. García, Zakaria, & Octu, 2013; Martínez, Hikida, & Durán, 2015; Martínez-Roldán, 2015; Palmer, Martínez, Mateus, & Henderson, 2014) while adding a component that elucidates ways in which coteachers can effectively distribute their expertise in an effort to coordinate their practices. This new knowledge of the intersection of one teacher pair’s language practices with instructional targets and strategies...
opens a new avenue through which we can begin to consider coteachers’ dynamic languaging practices when working with emergent bilingual students.

**Implications for future research**

It is important that future research continues to document the ways in which bilingual coteachers make use of all of the semiotic resources at their disposal in coordinating their instructional practices. Investigations of the effectiveness of teachers’ coordinated practices that are realized through translanguaging and that note how teachers’ use of varying instructional strategies and dynamic bilingualism contribute to achieving their instructional goal(s) would inform our growing understanding of the ways in and reasons for which DLBE teachers perform both monolingually and bilingually. Furthermore, while the construct of instructional strategies was an important component of the larger study, it was not a primary focus of the current analysis. Subsequent studies might systematically investigate the role of instructional strategies in the coordination of teachers’ languaging and academic practices.

The scope of this study did not include teacher voices or reflections regarding their views on translanguaging as coordinated practice. This insight would allow for a more-nuanced consideration of pedagogical intentionality, adding another layer of data triangulation and enhancing our understanding of the ways that DLBE bilingual education coteachers act upon—and sometimes against—socially constructed linguistic norms and standards, including prevalent monoglossic language ideologies that position monolingualism as the norm and frame bilingualism from a monolingual perspective. Finally, this study design only allowed for an analysis of the ways in which teachers expressed their understandings/knowledge and bilingual identities as the context, situation, and audience called for (O. García & Wei, 2014) while engaging in book-based interactions without systematically investigating the role that students played. Subsequent studies might explore how young emergent bilinguals contribute to a multilingual classroom ecology as agentive participants in and important mediators of their own and their peers’ learning.

**References**


