Instructional Supports: Facilitating or Constraining Emergent Bilinguals’ Production of Oral Explanations?

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Instructional Supports: Facilitating or Constraining Emergent Bilinguals’ Production of Oral Explanations?

Abstract
This qualitative study examined how specific instructional supports intended to scaffold emergent bilinguals’ oral production of explanations and descriptions facilitated or constrained students’ attempts to explain. Findings demonstrate that explanations were very rarely produced, and when they were produced, the explanations were not particularly informative. Furthermore, the teachers’ attempts to support emergent bilingual talk via sentence starters, guiding questions and rephrasing questions inadvertently undermined the students’ attempts to explain and describe.

Key words: emergent bilinguals, English learners, instructional scaffolds, language arts, classroom discourse

Word count: 9139
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Students are expected to use language to express their own ideas, and challenge and build on the ideas of others as they work independently and collaboratively. Engaging in one-on-one, group and whole class discussions or oral presentations with different audiences call for different interactional and language norms with which students acquiring English may be unfamiliar (A. K. Kibler, Walqui, & Bunch, 2015). Teachers often provide structures (sentence starters, graphic organizers, etc.) aimed at facilitating the acquisition of interactional and language norms. Instructional supports may be especially important in the production of key communicative acts such as explanations.

Explanations prepare youth to think independently, explain their thinking and challenge and build on others’ ideas. Furthermore, the Common Core State Standards (CCSS) adopted by many states in the United States make multiple references to explanations. CCSS for Reading: Literature 4.1, for example, states “Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text (emphasis added)” (Common Core State Standards Initiative, 2014). Yet, Valdés, Capitelli and Alvarez (Valdés, Capitelli, & Alvarez, 2010) found that explanations were among the last language behaviors that emergent bilinguals (EBs\(^1\)) produced over a three-year period, suggesting that explanations are one of the more difficult productive language behaviors for EBs. Many possible explanations exist for this difficulty. For example, perhaps explanations require more advanced levels of English proficiency or EBs are afforded only infrequent opportunities to explain concepts in the classroom.

\(^1\) I use the term “emergent bilingual” in place of “English learner”. In some cases, I use “English learner” to highlight the term the school, state department of education or a specific research study used to describe the students.
In this article, I focus on explanations produced by fourth grade EBs in communication with their language arts teacher and how their teacher supports their production. The central question guiding this study is how do specific instructional supports facilitate or constrain EB's oral production of explanations in Language Arts? Explanations are a specific type of speech act and occur in academic and non-academic settings. I focus exclusively on speech acts occurring in the classroom and refer to how the children use language (e.g., explain, describe, disagree) while engaging in academic tasks as academic speech acts (Rodriguez-Mojica, 2018 for a detailed discussion of academic speech acts). It is important to note that there is disagreement about what counts as academic language (Bunch, 2014; Rolstad, 2017; Wiley & Rolstad, 2014). I view the language students use to communicate their understanding of academic content as a legitimate form of academic communication. As such, I understand any speech acts produced as students engaged in academic tasks as academic speech acts. I focus on EB – teacher communication because the language teachers encounter EBs using likely contributes to their understanding of EBs’ language proficiency and understanding of academic content.

Recent work has emphasized the misuse of the term explanation and other speech acts in academic discourse, such as description and, in science, argumentation (Berland & McNeill, 2012; Osborne & Patterson, 2011). Osborne and Patterson explain, “When two linguistic features are conflated, the outcome is confusion in the mind of the teacher and student. Lacking a well-defined intellectual construct students are in danger of confusing the goals of argument and explanation” (Osborne & Patterson, 2011, p. 636).

Is a similar clarification of explanation needed in Language Arts (LA)? Perhaps. Standard 4.1 introduced above does not explicitly ask students to describe, but a closer examination of the standard reveals that it may be asking students to both explain and describe.
Standard 4.1 states, “Refer to details and examples in a text when explaining what the text says explicitly,” but do we *explain* what a text says or *describe* what a text says? One way to interpret Standard 4.1 is that students are expected to refer to details when telling or *describing* what the text says and *explain* how reasoning and evidence led them to a conclusion. That is, students first *describe* what a text says. Then, students may refer to textual evidence to *explain* their reasoning.

The term *explain* is commonly used in classrooms, learning standards and curriculum books. Perhaps because the word occurs so frequently, the exact meaning of the term is rarely investigated. Whereas literacy research has not yet explored explanations, science education has begun to specify the exact meaning of explanation. Therefore, I will begin my discussion of explanations by reviewing studies in science education. Then, I will discuss the pragmatic-rhetorical theory of explanation that grounds my understanding of explaining in language arts and introduce the two types of explanations that will be the focus of this study. Finally, I will share the model of *instructional scaffolding* that provides a framework for understanding how the classroom teachers’ use of instructional supports interacted with emergent bilinguals’ production of explanations.

**Explaining in Science Education**

Over 20 years ago, Horwood (1988) stated that teachers and students perceive the terms *describe* and *explain* as being interchangeable in curriculum units and science tests. Sometimes *explain* is used as a substitute for *define*, as in “*explain* the term *extrinsic;*” at other times, it is used with describe as in “*describe* and *explain* the depletion region and junction field at a p-n junction” (Horwood, 1988, p. 44). This inconsistent use of the terms *explain* and *describe* may confuse children who are attempting to produce explanations and descriptions in the science classroom.
In clarifying explanation in science education Osborne and Patterson (2011) provide the following distinction, “...explanations are driven not by the need to persuade or advance a claim to knowledge but by the desire to answer the question “Why?” (e.g., Why is the sky blue?). Driving the need for explanation is the presupposition that the phenomenon occurred (e.g., that some birds survived, the sky is blue or that it rained yesterday)—none of which are statements in need of evidence to establish their validity (Osborne & Patterson, 2011, p. 631).” Explanations in the science classroom attempt to answer a “why” question about a phenomenon that is not in doubt. Although attempts are being made to clarify what is meant by explanation in science education, there is disagreement about whether a clarification of terms is necessary in k-12 classrooms.

Berland and McNeill (2012) agree that explanation is often conflated with other terms and that the research community should arrive at a common understanding of terms, but they are not convinced that the distinction should be made clear to teachers and students. Berland and McNeill (2012) worry that emphasizing the distinction between explanation and argumentation will convey the message that each practice stands alone and mislead students to thinking that explanations are possible without argumentation. Instead of emphasizing distinctions, Berland and McNeill propose that commonalities be emphasized in order to show students how the terms support each other to build scientific understanding (Berland & McNeill, 2012). In a rebuttal, Osborne and Patterson (2012) maintain that learning how to distinguish between explanation and other scientific terms can still result in students making links between practices.

A study investigating fifth-graders’ understanding of explanations, evidence and argumentation revealed that students had only a basic understanding of what *explain* meant in science class (McNeill, 2011). Following instruction on the scientific practice of argumentation,
however, the students’ understanding of scientific practice, including explaining, became stronger (McNeill, 2011). Results from this study suggest that students’ understanding of explanations can be developed through instruction. The fifth-graders in McNeill’s study were primarily Latino students who spoke a language other than English, but McNeill did not provide information about whether the students were classified “English learners”. If fifth-grade students who spoke a language other than English were confused about what it meant to explain in the science classroom, fourth-grade students identified as “English learners” may also be confused about the meaning of explanations in language arts.

**Theoretical Framework**

Below I discuss the framework that draws on conceptions of explanations and scaffolds to understand how specific instructional supports work to facilitate or constrain EBs’ explanations in language arts.

*The Pragmatic-Rhetorical Theory of Explanation*

The conception of explanations grounding this study is drawn from pragmatic-rhetorical theory of explanations from the philosophy of science. While various approaches are used to understand scientific explanations, the pragmatic-rhetorical theory is aligned with a comprehensive theory of language as a dynamic meaning-making process that shifts based on the context. According to Faye (2007), explanations are context-dependent, intentional, and goal-oriented communicative acts in response to a question about a topic about which the interlocutor lacks information. Intrinsic to explanations is the fact that the case to be explained is understood as having, in fact, occurred; therefore, the explanation supplies any missing information. Faye also identified two types of explanations: description-giving explanations and reason-giving explanations (2007). In short, description-giving explanations are responses to “how” and “what” questions, whereas
reason-giving explanations are responses to “why” questions (Faye, 2007). As a result, description-giving explanations are different from descriptions because description-giving explanations attempt to answer a problem related to knowledge or to address the teacher’s lack of information. Descriptions are simply accounts of someone or something that does not attempt to solve an epistemic puzzle. In other words, the person requesting the description already knows the information.

**Explaining in Language Arts**

The construct *explanation* used here is similar to that of Faye (2007) and Osborne and Patterson (2011). According to Faye (2007), explaining is attempting to answer a question that poses a problem related to knowledge that typically answers a “why,” “what” or “how” question.

To qualify as explanations in the language arts classroom, student talk must attempt to solve an epistemic problem by providing information that is unknown to the teacher. Following Faye (2007), I classified explanations into two categories: description-giving explanations and reason-giving explanations. A description-giving explanation describes something, but the account must be an interpretation of something that the interlocutor does not already know. For example, a student telling her teacher about ideas for an essay she has not yet written represents a description-giving explanation. The student is describing ideas for the essay before the teacher has read it. A reason-giving explanation responds to a “Why” question and attempts to solve the inquirer’s problem related to knowledge. Following the previous example, the student communicating *why* she has selected a particular topic would be a reason-giving explanation.

It is important to note that the CCSS for language arts and literacy emphasize an interdisciplinary approach to language arts and literacy. The reading, writing, speaking, listening and language standards in the CCSS for language arts make explicit reference to science, social
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studies and technical subjects. CCSS aligned language arts anthology texts include literature and informational texts from science, social studies and technical subjects. Students may discuss the structural elements of poems and scientific observations of fossils within the period designated for language arts. As a result, explanations in language arts include explanations specific to literature and scientific explanations.

Scaffolding

Scaffolding is a process in which a knowledgeable participant or “expert” forms supportive conditions that make it possible for a learner not only to take part in the activity, but also to expand what they currently know and can do (Donato, 1994, p. 40; Wood, Bruner, & Ross, 1976). Wood, Bruner and Ross (1976) identified six features in adult-child problem solving tasks: gaining learner interest, simplifying the task, motivating the learner to complete the task, highlighting the difference between what has been produced and “correct production,” lessening stress and frustration and modeling how to perform the new skill. Although Wood and colleagues identified features of scaffolding in adult-child interactions, scaffolding can also occur among peers (A. Kibler, 2017; Martin-Beltrán, Daniel, Peercy, & Silverman, 2017).

Decades after Wood et al.’s six scaffolding features, researchers have lamented that the scaffolding concept has been applied too broadly, lost significance and has become synonymous with “support” (van de Pol, Volman, & Beishuizen, 2010). In contrast to routine support, instructional scaffolding adapts support to student needs (Athanases & de Oliveira, 2014; de Oliveira & Athanases, 2017; Parsons, 2012).

While there is no consensus on a definition of scaffolding, van de Pol, Volman and Beishuizen’ (2010) argue that for teacher instructional supports and strategies to be considered scaffolds, they must be contingent on, or adapted to, the students’ understanding. Second, the
supports must *fade* or be gradually released to allow the third characteristic to occur: the *transfer of responsibility* to the student (van de Pol et al., 2010). In this way, scaffolds are temporary supports adapted to the students’ current level of understanding. Van de Pol et al. (2010) emphasize that specific strategies such as modeling or questioning do not automatically imply that a teacher is scaffolding her instruction.

Scaffolding is associated with Vygotsky’s socio-cultural theory and, particularly, with the Zone of Proximal Development (ZPD) (Johnson, 2004; Parsons, 2012; van de Pol et al., 2010). Working within students’ ZPD includes ideas that overlap with scaffolding, but they are not identical. Walqui (2006) clarifies “...working in the ZPD means that the learner is assisted by others to achieve more than he or she would be able to achieve alone. Scaffolding refers to the detailed circumstances of such work in the ZPD” (p. 163). Central to Walqui’s model of scaffolding is that planned structures are coupled with the process of using the structure in a contingent, interactive and collaborative manner (2006). Walqui and Van Lier (2010) emphasize that “the purpose of the structure is to facilitate the process” (p. 25). This caveat serves as a reminder that structures work to serve collaborative and interactive academic discussions and are not intended to be the end goal.

**Scaffolding EB classroom talk**

In her examples of the types of instructional scaffolding to use with EBs, Walqui (2006) includes sentence starters as models of appropriate language to use for engaging in activities such as explaining and clarifying. Sentence starters, or sentence stems, serve as entry points into a discussion and provide structure for the beginning of an utterance. For example, “In my opinion…”. In Walqui’s discussion, the scaffolds are presented and the students decide whether they need the support or can proceed without them.
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However, whenever supports are not grounded in contingency, fading and transfer of responsibility—and, therefore, do not serve as scaffolds— they have been found to limit EBs’ access to and engagement with academic content. In a study examining the challenges a tenth grade emergent bilingual and his teacher experienced in navigating a writing task, Kibler (2011) finds that attempts to help the student with the assignment resulted in the teacher doing most of the work for the student. The teacher in Kibler’s study might have provided contingent support, but there was no fading or transfer of responsibility back to the student. A similar example of over-support in peer-to-peer oral interactions has been found among EBs in elementary school (Daniel, Martin-Beltrán, Peercy, & Silverman, 2015). Heavy reliance on discussion cards with scripted question-and-answer prompts (structure) and an inadequate focus on helping students use the cards adaptively through interaction (process) limited EBs’ opportunities to elaborate on their responses to reflect a more natural interactive conversation (Daniel et al., 2015).

A study of two high school teachers attempting to scaffold oral and writing tasks for Latina/o youth further illustrates the tendency to confuse support with scaffolds. Athanases and de Oliveira (2014) found that while both teachers aimed to scaffold instruction, one teacher used planned supports that became routine, as opposed to temporary supports that gradually transfer responsibility to the student. By doing so, the teacher was not providing instructional scaffolds but routine supports (Athanases & de Oliveira, 2014). Helping EBs access content involves transforming what Athanases and de Oliveira (2014; de Oliveira & Athanases, 2017) call routine supports into scaffolds that are responsive to student needs related to the objective that then fade as the student is able to meet the objective without the scaffold.

de Oliveira and Athanases (2017) propose a reenvisioning of scaffolding where scaffolding is viewed as an instructional practice that is an ongoing concern, not easily resolved
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or routinized. The reenvisioning of scaffolding called for by de Oliveira and Athanases (2017) requires teachers to ask themselves the following: who needs this particular support? What purpose does this support serve? How will the support be used and how will I know when to gradually release the support? These questions guide teachers to scaffold students’ oral and written production.

Explanations are key academic speech acts that EBs are expected to produce in Language Arts; teachers must support their EBs’ production of these speech acts, typically using instructional supports or scaffolds. Previous research, however, suggests that it is possible to over-support the students to the point where the support becomes not only unhelpful, but also may actually limit EBs’ oral and written production and elaboration of ideas. Examining fourth-grade emergent bilingual talk for six months, I ask how do specific instructional supports facilitate or constrain EB’s oral production of explanations in Language Arts?

Method

In this section, I describe the study from which I draw data for this article, the children that participated in the study, and the language arts classroom context.

Research Setting

The larger research study from which this study is taken was a six-month long study of emergent bilinguals’ English language use while engaged in academic communication in a fourth-grade classroom (Rodriguez-Mojica, 2018). Although the larger study goals were to identify and describe the academic speech acts the children produced while engaged in academic tasks, the corpus of data included rich examples of the children’s production of speech acts as they engaged with the classroom teacher. Thus, the study combined classroom observation, conversation analysis and informal conversations with the children and their teacher. The
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research involved close collaboration with the focal students’ classroom teacher, Ms. Nielson (all names are pseudonyms), and other teachers in cases where the children received subject specific instruction from teachers other than Ms. Nielson. Analyses for this article is based on Ms. Nielson’s language arts classroom. Ms. Nielson held California’s authorization to work with English learners. She had ten years of teaching experience at the time of the study and worked with EBs all ten years. Ms. Nielson was not a Spanish speaker.

The School, Classroom and Focal Students

The study took place at Sage Elementary, a 700-student public school, serving students from K-6 in the northern California Bay Area. At the time of this study, 67% of Sage’s students were Latino, 25% Asian, 2% African American, 2% Filipino and 2% White. More than half of Sage’s students were classified as English Learners, and 76% of the students were eligible for free or reduced-price meals. Students at Sage received instruction via English. Eight fourth grade EBs from Ms. Nielson’s classroom were selected to participate in this study.

Ms. Nielson’s classroom was recommended by the school principal because Ms. Nielson designed activities aimed at increasing student talk. Of the 32 students in Ms. Nielson’s classroom, 19 were designated English learners, most of whom were Spanish speakers. Although the large majority Ms. Nielson’s students spoke a language other than English, they overwhelmingly used English during class time.

The criteria for selecting the eight focal students included the following: (1) they were classified as EL; (2) Spanish had been identified as their primary language, and (3) they met the “struggling” or “successful” criteria described below. In collaboration with Ms. Nielson, I identified four “successful” and four “struggling” students identified as ELs. “Struggling” students scored Below Basic or Far Below Basic on the California standard LA test and below
average in classroom LA assessments. “Successful” students scored Basic or Proficient on the California standards LA test and average or above in classroom LA assessments. The classroom LA assessments were drawn from the standards aligned language arts curriculum and were scored by the classroom teacher. Selecting focal students in this way enabled me to capture the English language use of EBs perceived as struggling or successful in LA, as opposed to focusing only on one group. I used language arts performance to select participants because I was interested in the ways EBs perceived as struggling or successful in language arts used English to produce explanations and other speech acts. Table 1 provides a summary of the students’ most recent test performance at the time of the study. I share state English language proficiency scores to illustrate the focal students’ assessed proficiency in English.

(Insert Table 1)

All of the focal students participated in this study and were included in the analysis. Analysis revealed that three focal students, Dominic, Olivia and Tommy, produced all the explanations with teacher provided instructional supports. All three focal students were identified as successful in language arts.

**Language Arts instruction**

Ms. Nielson’s LA class used the Scott Foresman Reading Street curriculum and, among other activities, worked on vocabulary and writing, used graphic organizers, read in unison from the reading anthology, and answered teacher questions. Ms. Nielson took special care to select activities that would increase student talk and participation. Students in her class created questions about the reading selection and participated in question-and-answer group activities using their own questions. Students were often encouraged to speak in complete sentences, and
Ms. Nielson provided sentence starters and frames for student use in group discussions and answering whole-class questions.

**Data Collection**

I visited Ms. Nielson’s fourth grade classroom over a period of six months, two times a week and audio recorded the eight focal students’ talk from 10:15 a.m. - 2:15 p.m. Because I had three audio recorders to use at one time, three students wore a recorder every observation day. This procedure allowed me to collect student talk in nearly all subject areas. However, only talk from LA was analyzed in this study. I collected and analyzed over 40 hours of focal student classroom talk. Focal students placed a small recorder in their pockets and wore clip-on microphones that captured focal students’ and interlocutors’ talk. The wearable recording device enabled me to capture their language use as they moved about the classroom and interacted with others. Whereas students were likely highly conscious of being recorded at the beginning of the project, they soon grew accustomed to wearing the recorder. I transcribed focal student talk using Conversations Analysis conventions (see Appendix).

In addition to audio recording student talk, I wrote ethnographic field notes. The field notes provided non-verbal information that helped me to contextualize EB speech act production. To better understand focal student language use, I frequently engaged in informal conversations with the focal students and their teachers. Through our conversations, I learned about the classroom dynamics and teacher perceptions of the focal students’ academic and language abilities.

**Data analyses**

I relied on the Pragmatic Rhetorical Theory of Explanations guiding this study to identify and analyze explanations. I used Conversation Analysis (Hepburn & Bolden, 2013) to
transcribe and analyze the focal children’s production of speech acts in the classroom. In this way, the Pragmatic Rhetorical Theory of Explanations guided my understanding of explanations as a speech act and Conversational Analysis assisted my understanding of how the students attempted to produce explanations in communication with their teacher. After I identified and coded explanations, I grouped them by type of explanation and reviewed each speech act for fit within each type and recoded accordingly. Finally, I conducted a final review of each speech act to confirm that each speech act was accurately coded. As described previously, explanations were two of the 57 total speech acts found in the corpus.

Given this study’s focus on explanations produced by EBs in communication with their language arts teacher, I narrowed the data to explanations produced in communication with the teacher. After identifying explanations in communication with the teacher, I coded the type of teacher talk that elicited the explanations. I coded questions as: how, what, who, why, and unspoken questions. I quickly learned that teachers also used commands and sentence starters to elicit explanations. I added commands and sentence starters to the elicitation codes to capture non-question elicitations. Analyzing what elicited explanation productions highlights the teacher talk that signals to emergent bilinguals that an explanation is required.

Next, I added an additional “incomplete” code to capture explanations that were incomplete. For example, a student uttering “because um” signaled an attempt at an explanation; however, because the student did not continue the explanation and stopped at “um,” the speech act was coded as being incomplete. Then, I analyzed the explanations that the focal children produced while talking with the LA teacher to identify patterns in teacher-student communication that could help explain the children’s production of explanations.
Findings

The goal of this study was to examine how specific instructional supports facilitated or constrained the oral production of explanations in language arts. The classroom teacher used sentence starters, guiding questions and rephrased questions as instructional supports aimed at facilitating focal students’ production of explanations. While the supports aimed to facilitate the oral production of explanations, the large majority of instructional supports constrained their oral production. Analysis revealed only two instances where instructional supports facilitated the production of explanations. As mentioned above, three focal students (Dominic, Olivia and Tommy) produced all explanations with teacher provided instructional supports.

Below, I first describe how sentence starters constrained opportunities for EBs to produce explanations. Then, I show how guiding questions and a sentence starter facilitated the production of explanations. The excerpts below include all data showing how instructional supports facilitated or constrained the oral production of explanations in communication with the teacher.

Constraining the Production of Explanations: Sentence Starters

Description-giving Explanations

A description-giving explanation is often a response to spoken or unspoken “How” and “What” questions and attempts to solve an epistemic problem. In 40 hours of focal student classroom talk, I found only two instances of description-giving explanations in interaction with the classroom teacher where the teacher used instructional supports. Both description-giving explanations occurred during one classroom activity and were produced by Dominic, a student categorized as successful in LA. Dominic’s attempts were highly scripted by sentence starters
and were not prompted by an explicit explanation-seeking question. I discuss Dominic’s
description-giving explanations below.

In the excerpt below, Ms. Nielson has announced that students will continue their work
on the vocabulary word *analysis*. She has placed “pretend fossils” (different types of rocks) to
analyze on each child’s desk. Ms. Nielson reminds the students that an *analysis* is a closer
examination of a situation and then identifies the sentence starters that she wants students to use
in their analyses. The sentence starters are: “My analysis of this fossil is that it is a…” “I think
this because I see…” and “I think the next step to take is…” The sentence starters are presented
before the children begin analyzing their fossil.

(1)  

Ms. Nielson  The sentence frame is up here so that you can make a good complete
analysis of your fossil. [Okay.]  

Dominic  °°[ Hey Arturo] lookit what I got °°  

Ms. Nielson  Remember that the goal here is for you to learn what the word means
and to be able to use the word. Okay? You can be as creative as you want
with your item, okay? Just like I was when I was modeling, how I believed
this is a deep, dark ancient writing utensil from the prehistoric days.
Right? Okay!
And, of course, it’s not. So be:
I don’t care about that part, you can be creative, have fun with it. But what
I do want is for you to use analysis
My analysis of this fossil is that it is a:-
-I think this because I see:
I think the next step to take is:

The goal of this activity is for the students to learn the meaning of the word *analysis* and to use
the word. Ms. Nielson modeled making a hypothesis based on her analysis, but she made her
hypothesis conform to the sentence starter “My analysis of this fossil is that it is a…” The
analysis really commences at the second sentence starter, where students identify the
observations that support their hypothesis of what the fossil is. Ms. Nielson’s modeling and use
of sentence starters, while intended to help, delivers a confusing and inaccurate use of *analysis.*
Ms. Nielson begins to assign partners and reminds students to use the sentence starters provided and speak in complete sentences.

(2) *Ms. Nielson*  
Complete sentences! Use the words! Please use the sentence frame!  
Use the sentence frames! One person gets started. 
Okay, Dominic, you go first!

As Ms. Nielson stands next to Dominic, Dominic makes his first attempt at producing a description-giving explanation.

(3) *Dominic*  
Okay. My *analysis* of this fossil is that it is a **hmmm**  
° Wait, Wait °  
> I don’t have anything <

Dominic attempts a description-giving explanation by using the sentence starter provided. His description-giving explanation, however, is incomplete because he simply repeats the sentence starter. He attempts to buy some thinking time, but quickly gives up and communicates that he is unable to continue. Ms. Nielson steps in and attempts to assist.

(4) *Ms. Nielson*  
Come on! Just make up your—  
-It’s a green block!  
Okay?

*Dominic*  
My analysis of this fossil is that it is a: green, light green block.

*Ms. Nielson*  
Okay keep going

Ms. Nielson’s attempt to help results in Dominic doing very little work to produce the description-giving explanation, closely resembling Kibler’s (2011) finding that the teacher’s attempt to help a 10th grade EB resulted in the teacher completing most of the assignment.

Therefore, although Dominic used a sentence starter with the word *analysis*, it is unclear whether he understands what it means to analyze. Ms. Nielson accepts the explanation through her prompt to “keep going.”

*Reason-giving Explanations*
A reason-giving explanation occurs in response to spoken or implied “Why” questions and attempts to solve the inquirer’s problem relating to knowledge. Reason-giving explanations seek to provide the speaker’s reasoning and tend to use the conjunction “because.” In 40 hours of focal student talk, I found seven instances of reason-giving explanations in interactions with the classroom teacher. Students identified as successful produced all seven of these reason-giving explanations. Speakers use hedges such as “maybe” and “possibly” to qualify statements or explanations that they are uncertain about. Using “maybe” helps students mitigate reason-giving explanations and demonstrates a slightly more sophisticated ability to explain.

The excerpt below is the exchange following the description-giving explanation above. Ms. Nielson has accepted Dominic’s description-giving explanation and now prompts Dominic to use a sentence starter that requires an explanation of why he has determined that the fossil is a light green block.

(5)  

Ms. Nielson  Oka:y keep going  
Dominic  I think thi:s because I see: like lem- lime green righ’ here.

Dominic’s reasoning behind his analysis that the fossil is a light green block is that he observes lime green on the object. Analyzing an object or text typically leads to a hypothesis or conclusion about the object or text. Although intended to scaffold students’ understanding of the word *analysis* and production of the expected speech act, using these specific sentence starters and insisting on using the word *analysis* resulted in a confusing message of what analyze means. The first sentence starter using the word *analysis* is really a hypothesis based on close observation or analysis prompted by the second sentence starter (I think this because I see...). In this case, Dominic communicated his hypothesis that the fossil was a light green block because his analysis revealed that the fossil was lime green. His description-giving explanation could
have been richer had he focused on the fossil being a block and detailed the reasons he
hypothesized that it was a block. Ms. Nielson does not comment on his reason-giving
explanation, and he immediately moves on to the next sentence starter intended to describe the
next step to verify his analysis.

Requiring the use of highly structured language in the form of sentence starters
inadvertently steered the focus away from the content objective (understanding the meaning of
the word *analysis*) to using the word *analysis* in a complete sentence. The complete sentences,
however, lacked a message of substance and do little to demonstrate Dominic’s understanding of
what it means to analyze. Indeed, by emphasizing the use of the sentence starters, sentence
production overshadowed a critical aspect of academic discourse—the need for an underlying
understanding of the concepts the students were expected to discuss. It is likely that Dominic did
not understand what it meant to analyze or how to analyze the fossil on his desk when he was
expected to do both using a highly structured complete sentence. The teacher’s prompts to
continue his analyses, however, signaled that Dominic had satisfactorily met the objective.

The sentence starters intended to help Dominic were not contingent scaffolds and did not
facilitate a collaborative and interactive academic discussion. In fact, the sentence starters appear
to have undermined both the production of explanations and descriptions and, in fact, masked his
understanding of the target vocabulary word.

**Constraining the Production of Explanations: Teacher Questions**

The children in Ms. Nielson’s class sometimes stumbled on vocabulary and used
academic delays such as “umm” and the stretching out of words to “buy” thinking time. When
emergent bilinguals appear to stumble, it is difficult for teachers to gauge whether the children
are having difficulty with the concepts, the language they are expected to use to deliver their
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ideas or both. In the communicative exchanges that follow, Ms. Nielson appears to be facing a similar challenge with Olivia. To support Olivia’s response, Ms. Nielson uses guiding questions and rephrases her questions. By changing her questions, however, Ms. Nielson is simultaneously changing the appropriate response types, thereby making it increasingly difficult for Olivia to identify which question she is expected to answer.

For instance, for the last 20 minutes, Ms. Nielson and her 4th grade class had been reading aloud from their language arts anthology. They were reading *The Case of the Gasping Garbage* by Michelle Torrey. The young detectives in the story had just landed a new case; they were investigating why a garbage can was making gasping sounds. The client thought there might be a monster inside the garbage can. Ms. Nielson pauses the choral reading and begins to question the class about what they think is going on with the garbage can.

(7) **Ms. Nielson** What do you guys think is wrong with the garbage can? Do you think there’s a monster inside of it?

**Students** [Noo.]

[Noo.]

**Ms. Nielson** Who thinks so, raise your hand.

**Olivia** ((giggles))

**Ms. Nielson** How many of you don’t think there’s a monster inside?

**Olivia** ((raises her hand))

**Ms. Nielson** Why DON’T you think that there’s a monster inside, Olivia?

By asking why, Ms. Nielson is asking for the reason Olivia does not think there is a monster inside the garbage can. Why questions seek reason-giving explanations. Ms. Nielson is using a guiding question to support Olivia’s reason-giving explanation. An appropriate response would be to provide an explanation in which Olivia communicates her reasoning. Olivia’s use of *because* in her reply signals directly that she will provide a reason-giving explanation. After a two-second pause Olivia begins.

(8) **Olivia** °Be:cau:se u:m°
MS. NIELSON = Why do you think the garbage can is making all the gurgling noises?

Olivia’s response begins with because and demonstrates her intention to provide a reason-giving explanation. She uses the conversational hesitation device um commonly used to “buy” thinking time. Ms. Nielson quickly latches onto the beginning of her explanation and rephrases the question. She changes the question from “why don’t you think there’s a monster inside?” to “why do you think the garbage can is making all the gurgling noises?” An appropriate response to “why don’t you think there’s a monster inside?” would explain why Olivia does not think that there is a monster inside the garbage can. When the question changes to “why do you think the garbage can is making all the gurgling noises?” the appropriate response changes to an explanation of why the garbage can is making all the gurgling noises. Simply put, the proper response changes from why something is not to why something is. However, the appropriate response type remains the same. Ms. Nielson is still seeking a reason-giving explanation.

After a generous eight-second pause, Ms. Nielson rephrases her question again, presumably in an effort to help Olivia respond. This time the question changes from a “why” question to a “what” question:

(9) MS. NIELSON What do you think is going on in the garbage can?
    What’s your prediction?
    I think…

Ms. Nielson asks Olivia to describe what might be happening inside the garbage can and quickly follows up with a request for Olivia’s prediction. By asking “What’s your prediction?” Ms. Nielson is now asking Olivia for a description-giving explanation of what she thinks will happen next. The question has changed the appropriate response from a pure description to a description-giving explanation because Ms. Nielson does not yet know what Olivia’s prediction is. Not only has the appropriate response changed from a description to a description-giving
explanation, but Olivia’s response now requires a shift from telling what she thinks is happening inside the garbage can to telling what she thinks will happen in the story. Ms. Nielson provides a sentence starter to assist Olivia:

(10)  

Olivia  °I th[ink°]  
Ms. Nielson  I [think] the garbage can’s gasping because…

Ms. Nielson then expands on the sentence starter and provides Olivia with more pieces to help her construct an appropriate response. The scaffold, however, changes the appropriate and expected response once more. Instead of supporting a response communicating a prediction, Ms. Nielson’s sentence starter is now setting the stage for a reason-giving explanation response that provides the reason why the garbage can is making gasping noises.

(11)  

Olivia  °I think the garbage ca:n is gasping becau:se u:m° ((2 second pause))  
((Clears throat))  
°U:m°  
Ms. Nielson  Complete your sentence  
What do you think  
What do you think’s going on  
Olivia  °Maybe the:re- there’s a:°  
°A:°

Despite several attempts, Olivia fails to provide an informative response. After a four second pause, Ms. Nielson moves on to another student. The excerpt above shows how Ms. Nielson’s sincere attempts to help Olivia produce an explanation are unsuccessful.

In the last example of attempts to rephrase a question to aid the production of an explanation, Ms. Nielson seeks a description-giving explanation of how sustained silent reading improves reading skills. Ms. Nielson first asks Olivia in what way silent reading improves reading skills and immediately rephrases to what reading skills silent reading helps improve.

(12)  

Ms. Nielson  In what way exactly?  
What-what-what does it help you with improve in your reading skills  
Yes, indeed it does
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Olivia It improves the reading skills be- because: Mmmm

Instead of explaining how silent reading improves reading skills, Olivia’s use of “because” signals an attempt to produce a reason-giving explanation stating why silent reading improves reading skills. Olivia’s reason-giving explanation is incomplete and the rephrasing of questions did not facilitate the production of a reason-giving explanation.

Facilitating the Production of Explanations: Guiding Questions and a Sentence Starter

As mentioned above, I found only two instances where instructional supports served their intended purpose – facilitating the oral production of explanations. Both instances occurred with the support of guiding questions and were produced by Dominic and Tommy, two students identified as successful in language arts. Tommy’s production was facilitated by a guiding question and a sentence starter.

In the excerpt below, Ms. Nielson is facilitating a whole class discussion about the book Dear Mr. Henshaw by Beverly Cleary. Ms. Nielson is asking the class to identify the main idea of the book and directs her question at Dominic.

(13) Ms. Nielson Okay alright good. Let’s see what about, Dominic? What would you say the main idea- Dominic -I think the main idea is Leigh Bots is writing to his favorite author? Ms. Nielson Why? Dominic Because he likes the books that Hens-, Mr. Henshaw wrote. Ms. Nielson Okay. Alright, anybody else with an idea of what the main idea is?

Dominic shares that he thinks the main idea of the book is that Leigh Botts is writing to his favorite author. Ms. Nielson guides Dominic to provide a reason-giving explanation. By posing the guiding question “Why?”, Ms. Nielson is presumably seeking the reason why Dominic thinks the main idea is that Leigh is writing a letter to his favorite author. Dominic
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responds with a complete reason-giving explanation of why Leigh is writing to his favorite
author, but does not provide a reason-giving explanation detailing why he thinks that is the main
idea. Ms. Nielson signals her acceptance of the explanation via her statement of “okay” and
moving on to other students. Ms. Nielson’s guiding question is successful in that it facilitated
Dominic’s production of a reason-giving explanation, but it is unclear if the brief “Why” guiding
question elicited an explanation for the question Ms. Nielson sought.

The second instance of instructional supports facilitating the production of an explanation
occurred with a joint guiding question and sentence starter. Tommy is summarizing chapter 11 in
his oral presentation of the book Dear Mr. Henshaw.

(14)  Tommy  Chapter 11. Leigh was so happy when Bill Botts came to visit him.
       And it was touching and heartbreaking and heartwarming
       One of the most important chapters was chapter eleven because
       It was the last chapter and um
       It was death defying and
       Really sad

Immediately following his summary, Ms. Nielson asks Tommy “why?” and provides a sentence
starter to aid his reason-giving explanation.

(15)  Ms. Nielson  Why?
       Because…
       Tommy  Because um Leigh’s mom said no to Bill Botts because he asked uh uh
       Bonnie Botts to marry him
       Ms. Nielson  Right
       And so that’s why you thought it was sad
       Okay

Tommy responds to the guiding question and uses the sentence starter to explain why he thought
chapter 11 was really sad. Excerpt (15) shows how the joint guiding question and sentence starter
served to facilitate Tommy’s production of an explanation.
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Discussion and Implications

This study examined how specific instructional supports facilitate or constrain EB’s oral production of explanations. I found that the classroom teacher used sentence starters and questions to support students’ production of explanations. The sentence starters and questions, however, were often what Athanases and de Oliveira (2014) term routine supports and not instructional scaffolds contingent on student need. The routine supports often inadvertently undermined EBs’ opportunities to explain. This finding supports existing scholarship showing that instructional supports that do not scaffold can limit EBs’ access to and engagement with academic content.

Generally, the students produced few explanations in communication with the teacher. What factors might explain the low presence of explanations? One possible explanation is that emergent bilinguals are not yet able to produce explanations at the same rate as other speech acts. An alternative explanation is that EBs do not have as many opportunities to produce explanations. While the present study was not designed to measure academic speech act development over time, my findings corroborate Valdés et al’s (2010) findings that explanations are not as prevalent in emergent bilinguals’ academic speech act production as other academic speech acts. It is unclear, however, if this is because explanations are more difficult to produce, or if there are just not as many opportunities that require explanations in 4th grade classroom interactions, particularly in student – teacher communication.

EBs in this study were expected to produce explanations that were implicitly cued by sentence starters; it is important that we consider sentence starters’ effect on student language use. Do sentence starters help students struggling with the English language expected in the classroom? Or, on the contrary, do sentence starters, particularly when used without preceding
questions, impede the production of the expected speech acts? For example, do students acquiring English recognize the implicit question embedded in the sentence starter, or do they have to work harder to identify the question, arrive at a response and then attempt to fit their response into the sentence starter?

These questions are especially important given that only three students produced all explanations with instructional supports in communication with the teacher and all three students were identified as successful in language arts. Dominic, Olivia and Tommy were among the highest performing EBs in language arts and their opportunities to produce explanations were constrained with the teacher provided instructional supports. How might EBs identified as struggling fare if tasked with identifying and producing speech acts implicitly cued by instructional supports such as sentence starters? More research is needed that examines whether and how instructional supports facilitate struggling EBs’ production of intended speech acts.

The use of sentence starters to aid emergent bilingual talk appears to be quite popular among teachers and professional development programs (E.L. Achieve: Creating Effective Systems for English Learners, 2014; Echevarria, Vogt, & Short, 2008; Kinsella, 2013) despite the absence of empirical evidence to prove their effectiveness. The communicative exchanges shared in this article show that by emphasizing the use of sentence starters, sentence production overshadowed the need for an underlying understanding of the concepts the students were expected to discuss. Future research on instructional supports, and sentence starters specifically, should study if and how the supports enable the expression of students’ understanding of concepts.

Furthermore, the exchanges in this article reveal that if sentence starters are meant to support student talk, they should be used thoughtfully and cautiously. de Oliveira and
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Athanases’s (2017) guiding questions in their framework to reenvision instructional scaffolding could support teachers’ thoughtful and cautious use of sentence starters. Teachers might consider the following: (1) does this particular student need the sentence starters? (2) will this specific sentence starter enable students to meet the lesson objectives? and (3) how can we use this sentence starter for interactive and responsive communication? In addition, I encourage teachers to consider if the type of question and response that the sentence starter is cuing is in fact eliciting the response sought. Asking a question and then requiring that students use a sentence starter that does not quite address the question type confuses students and inhibits their responses; it could be especially detrimental to EBs.

Like so many conscientious teachers, Ms. Nielson worked to rephrase her question to support Olivia’s response. What Ms. Nielson did not realize, however, is that by changing the question, she was simultaneously changing the appropriate response. Not only did the change in question cause a change in the appropriate response, but also altering the question changed the response from an explanation to a description and back to explanation again. While a teacher’s attempt to alter a question to adapt to a student’s degree of understanding could be contingent scaffolding, the altering of questions in excerpts 7 – 11 above, did not respond to Olivia’s need for support. The first rephrasing of a question latched onto Olivia’s reason-giving explanation before she completed her utterance and before she demonstrated a need for the support. The following attempts at support were two rephrased questions and one sentence starter that each called for different responses in rapid succession without providing Olivia an opportunity to respond to the first before the following support was delivered.

As teachers, we are required to “think on our feet” and to try different strategies to assist our students. I have no doubt that during my time in the elementary classroom I tried to help my
emergent bilinguals in similar ways. If one question did not elicit the desired response, I would try another one. Results from this study highlight the importance of paying close attention to what we are asking our students to do. Might our students, particularly our emergent bilinguals, be struggling to respond because they are confused about which question or sentence starter to respond to, as opposed to because they do not know how to craft a response? Or, might students be confused because the question or sentence starter is confusing and would, in fact, confuse even the most eloquent and fluent English speakers?

Results from this study reveal that supporting emergent bilinguals to meet the CCSS will require researchers and teachers to refine their current understanding of what is meant by explaining. By refining their understanding of what it means to explain in language arts, researchers can better study student production of explanations and teachers will be well-positioned to provide explicit instruction on what explaining is and how to explain in language arts.

By investigating how emergent bilinguals produced explanations when talking with the classroom teacher, analysis revealed that cues to explain are used loosely. The quick changes in teacher cues suggest that teachers may not recognize how changing a question or sentence starter function signals a change in response. Furthermore, teachers may not recognize the added challenge that rapidly changing questions add to EBs’ attempts to provide an appropriate response. Teacher self-study of language use in classroom interactions with emergent bilinguals might help teachers understand the inextricable relationship between teacher and emergent bilingual talk. Thereafter, educators can begin to have deeper conversations about what it means to explain in language arts and how to use instructional scaffolds to increase opportunities for their production.
Appendix

Conversation Analysis Transcription Conventions

[Overlapping talk] Two or more people talking simultaneously

= Latching indicates no silence between two turns or two parts of a turn

: Stretching of a sound

LOUD TALK All caps indicate loud talk, including shouting

°Quiet/soft voice° Indicates quiet or soft voice, but not a whisper

°°Whisper°° Indicates whispering

- Indicates self-interruption or cut-off

£ Indicates use of smiley voice

# Indicates creaky voice, signals upset

~ Indicates tremulous voice, can also signal upset

hah/heh/hih/huh Indicates laughter

((description of events)) Words inside double parentheses describe events

(possible hearing) Words inside single parentheses indicate a possible hearing

>speedy delivery< Indicates faster delivery compared to the surrounding talk
References


### Table 1: Focal student test scores

<table>
<thead>
<tr>
<th>Focal student</th>
<th>CST ELA score (grade 3)</th>
<th>CELDT (grade 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>Far Below Basic</td>
<td>Early Intermediate</td>
</tr>
<tr>
<td>Alexandra</td>
<td>Far Below Basic</td>
<td>Beginning</td>
</tr>
<tr>
<td>Jack</td>
<td>Below Basic</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Jenny</td>
<td>Below Basic</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Dominic*</td>
<td>Proficient</td>
<td>Early Advanced</td>
</tr>
<tr>
<td>Josey*</td>
<td>Basic</td>
<td>Early Advanced</td>
</tr>
<tr>
<td>Olivia*</td>
<td>Proficient</td>
<td>Intermediate</td>
</tr>
<tr>
<td>Tommy*</td>
<td>Proficient</td>
<td>Early Advanced</td>
</tr>
</tbody>
</table>

*Notes: These are overall test scores

CELDT: California English Language Development Test

The CST score ranges are: Far Below Basic, Below Basic, Basic, Proficient, and Advanced

The CELDT score ranges are: Beginning, Early Intermediate, Intermediate, Early Advanced, and Advanced

* Focal students identified as “successful” in language arts. Dominic, Josey, and Tommy were all reclassified fluent English proficient after the end of data collection. Thus, they are no longer considered to be ELs.

Table reproduced from Rodriguez-Mojica (2018)