Pragmatically Speaking: Towards Understanding the English Language Use of Young English Learners

Claudia Rodriguez-Mojica, *Education Northwest, Stanford University*

The Common Core State Standards (CCSS) for English Language Arts and Literacy have been adopted by almost all states and will alter classroom instruction as teachers prepare their students to meet the new expectations (Lee, Quinn, & Valdés, 2013). These new standards are advertised as doing more than solely focusing on basic reading and writing skills (Common Core State Standards Initiative, 2014b). That is, in addition to stating basic concepts and facts such as "The story took place in Yosemite National Forest," students will be expected to provide explanations and descriptions grounded in evidence. The new standards are expected to challenge students in ways that the previous standards did not.

What does more rigor and challenge mean for students who already struggled to keep up with the previous "less rigorous" standards (Fillmore & Fillmore, 2012; Goldenberg, 2013)? English learners trailed far behind their non-English learner peers in achievement tests and high school graduation rates under the previous standards (Aguila, 2010; Fry, 2007; Genesee, Lindholm-Leary, & Christian, 2006; Goldenberg, 2008; U.S. Department of Education, 2010). How will English learners fare in light of more demanding English language arts standards?

This paper is the second installation of a three-part series that aims to provide an in- depth understanding of how fourth-grade English learners use the English language in authentic English language arts communication. By listening to how English learners already use English to accomplish authentic academic tasks in English language arts, this series of papers demonstrates what English learners can do and may continue to do under the new CCSS. The first paper identified and described the academic speech acts eight focal English learners produced while engaged in authentic English language arts communication with various interlocutors. By academic speech acts I mean what the English learners did with language (e.g., clarify, disagree, request assistance, agree etc.) while engaged in academic tasks such as identifying the main idea of a story or providing feedback during peer-review writing sessions.

The present paper focuses on two of the academic speech acts found in the first paper. Specifically, this paper focuses on how fourth-grade English learners produce two speech acts particularly salient in the CCSS—explanations and descriptions—while engaged in real-time English language arts communication with the classroom teacher.

Authentic communication and speech acts

What do I mean by *authentic* communication and *real* academic tasks? By authentic communication I mean the natural talk that takes place in day-to-day English language arts interactions. By real academic tasks I mean the actual academic tasks taking place within the English language arts time. This communication and the academic tasks occurred naturally in the fourth-grade classroom where this study took place. I contrast authentic communication with the artificial and constrained interactions that take place in testing situations. Consider the following scenario:

> "Point to the girl holding the red balloon," the woman said. I looked at her, confused. The woman was holding the big picture card in her hands and was looking at me expectantly. Couldn't she see the girl holding the red balloon? The girl was right there, next to the man with the animal balloons. How could she not see the girl holding the red balloon? Or, maybe I was wrong. Was it red? It looked a little orange too, maybe orange red? I must be missing something, I kept thinking. Finally, I hesitantly pointed at the girl

holding the orange red balloon, completely unsure of my response. The woman wrote something down and continued to ask me questions that I could not make sense of. "What is this?" she asked as she pointed to familiar items such as a dog, a car, and a bicycle.

The young girl in the scenario is me as a young English learner. I have vivid memories of confusion as I tried to figure out the trick behind the obvious answer questions. The question was more than a known-answer question; it was senseless. My problem was not that I lacked the listening comprehension or vocabulary knowledge necessary to understand the woman's directions. I could hear and see perfectly well and I knew the meaning of *point*, *girl*, *holding*, *red*, and *balloon*. My problem was that I could not wrap my head around the obviously simple task presented in this artificial testing situation. My friends and I were being pulled from class one by one to meet this woman and answer her questions and we were told it was important that we try our best. Was she really just asking me to point to the girl with the red balloon?

Testing scenarios like the one above are artificial events with the purpose of getting at what students know in a systematic way, but I argue that their artificialness can confuse children and dim what students really know. If I had the courage to deviate from the initiation-response-evaluation[1] routine, and said "She's holding a red balloon, but it looks a little like orange. Does that count?" my ELP would have been clear. But, as a child I had been taught to follow the rules (whether spoken or unspoken) and so I pointed. My response was constrained by the testing environment in a way that most natural talk in interaction is not. This dissertation uses audio-recordings of natural talk in action as eight focal children work through academic tasks during English language arts.

Analyzing speech acts, or the acts performed by the speaker as a result of an utterance made (Crystal, 2009), is a powerful way to investigate what ELs can do in English. Flowerdew (2013) explains that much like the basic units of grammar may be clauses or sentences, the basic units of communication are speech acts. By studying the speech acts that English learners produce in English, I am interested in their talk as action and not in the grammatical features of the children's utterances. If in response to a peer suggestion the speaker says, "I don't think we should do that," the speech act is a refusal. The student could have also performed a refusal by any of the following:

1. How about we write about lizards instead?
2. You crazy?
3. The teacher said we can't do that.
4. That won't work.
5. Heck no!

Any of the utterances above serve to refuse a peer's suggestion, but clearly some may be more appropriate than others depending on context. The indirect, "How about we write about lizards instead?" may be better suited than "You crazy?," if students are under direct teacher supervision or if the speaker is concerned with hurting their interlocutor's feelings. Alternatively, given the right context[2], "You crazy?" and "Heck no!" may be perfectly appropriate refusals and preferable over indirect approaches. Notice that "You crazy?" contains an *are* copula deletion and could be interpreted as "incorrect grammar" but the copula deletion does nothing to hinder the communicative intent. By using speech act analysis, I view "You crazy?" as equal to "Are you crazy?" and not subordinate. I use the term *academic* speech act to

[1] In this case, the evaluation was not voiced but instead written down.

[2] The speaker may want to take a strong stance, for instance, because she knows it will get the intended response.

mean the speech acts used to engage in academic work, specifically the engagement with academic ideas and academic tasks during English language arts.

Why explanations and descriptions?

Why, out of all the academic speech acts English learners produced during English language arts, are explanations and descriptions important? First, the CCSS Reading Standards for literature and informational texts make multiple references to explanations and descriptions. This means that students, including English learners, are expected to explain and describe in English language arts. CCSS Reading Standard for 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, 2014a). Second, Valdés, Capitelli and Alvarez's 2010 study of receptive and productive proficiencies among Spanish speaking, beginning English learners found that the production of explanations was the last productive language behavior English learners produced over a three-year period. This suggests that explanations may be one of the more difficult productive language behaviors English learners are expected to produce.

Lastly, recent work has called attention to the misuse of the terms *explanation* and *argumentation* in science education policy documents and literature (Berland & McNeill, 2012; Osborne & Patterson, 2011). Osborne and Patterson explain the importance of making terms clear, "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, omitting vital elements of both, unable to identify these in the arguments of others" (Osborne & Patterson, 2011, p. 636).
Is a similar clarification of *explanation* and *description* in English language arts needed? Perhaps. Standard 4.1, for example, does not explicitly ask students to *describe*, but a closer look at the standard shows that it may be asking students to both *explain* and *describe*. The first part of 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 to refer to details when telling or *describing* what the text says and *explain* how reasoning and evidence led them to a conclusion. In other words, students first *describe* what a text says and when answering an explanation-seeking question such as "why do you say that?" they refer to textual evidence to *explain* their reasoning.

Explain and describe are commonly used terms in classrooms, state standards documents, and curriculum books. Perhaps because they are so commonly used, the exact meaning of the two terms is rarely explored. There are studies on argumentation in English language arts, but as you will read below, argumentation is not the same as explanation. While English language arts research has not fully explored explanations and descriptions, science education has begun to call attention to what is meant by explanation, argumentation, and description.

I will begin my discussion on explaining and describing by reviewing studies in science education. Then, I will discuss the pragmatic-rhetorical theory of explanation on which I ground 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 my understanding of what it means to describe in language arts and introduce the two types of descriptions that will be discussed in this study.

Explaining and describing in science education

In clarifying explanation and argumentation in science education Osborne and Patterson 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 and argumentation attempts to convince others of the validity of the argument being made. Although attempts are being made to clarify what is meant by explanation and argumentation 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 and argumentation are often conflated and that the research community should arrive at a common understanding of the two, 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, the researchers propose emphasizing commonalities in order to show students how explanation and argumentation 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 argumentation can still result in students making links between the two practices.

Years earlier, Horwood (1988) called attention to how *describe* and *explain* were used in science teaching. Horwood (1988) stated that teachers and students see the terms *describe* and *explain* used interchangeably and loosely in curriculum units and science tests. Sometimes *explain* is used in place of define as in *explain* the term extrinsic and other times it is used in combination with describe as in "describe and explain the depletion region and junction field at a p-n junction" (Horwood, 1988, p. 44). The inconsistent use of the terms explain and describe may confuse children attempting to produce explanations and descriptions in the classroom.

A study aimed at investigating fifth-grade student understanding of explanation, evidence, and argumentation across various settings showed that students had very little understanding of what it meant to explain in science class (McNeill, 2011). After instruction on the scientific practice of argumentation, however, the students' understanding of scientific practice, including explaining, became stronger (McNeill, 2011). The study found that 43 percent of students did not know what it meant to provide an explanation in science class and 39 percent understood an explanation in science class to be about observation (McNeill, 2011). After seven lessons incorporating scientific argumentation, 52 percent of students expressed an understanding that explaining in the science classroom was about how or why a phenomenon occurs while 30 percent viewed it as an exchange between people (McNeill, 2011). Results from this study suggest that students' understanding of explanations may be developed through instruction.

The fifth-graders in McNeill's study were largely Latino and out of 33 students, 27 students spoke a language other than English. Discussion about explanation, argumentation, and description has traditionally been approached through a general student population lens and has not specifically addressed how English learners might understand and produce these academic speech acts. Although McNeill did not provide information on whether the students were English learners, her study most closely resembles the young English learner population of interest in this paper. If fifth-grade Latino students who spoke a language other than English were unclear on what it meant to explain in the science classroom, fourth-grade Latino English learners may also lack clarity on the meaning of explanations in English language arts.

The Pragmatic-Rhetorical Theory of Explanation

My understanding and analysis of English learner explanations in English language arts is grounded in the pragmatic-rhetorical theory of explanations from the field of philosophy of science. Before delving into the theory, however, it is helpful to first understand the two components that make up explanations. What is to be explained is known as the "explanandum" and what is doing the explaining is the "explanans" (Klein, 1980). Consider the following question:

(1) Why did Arthur help the bully?

The explanandum, or what the explanation will seek to explain, is why Arthur helped the bully. Importantly, whether Arthur helped the bully is not under question. In other words, the explanandum is already known as being the case and the explanans will fill in missing information about the reason Arthur helped the bully. An appropriate explanans could be:

(2) He helped the bully because he was scared the bully would hurt him if he didn't help.

The explanans here would be, "He was scared the bully would hurt him if he didn't help." Simply put, the explanans *is* the explanation while the explanandum is what the explanans seeks to explain.

While there are various approaches to understanding scientific explanations, the pragmatic-rhetorical theory is aligned with my view of language as a dynamic meaning-making process that shifts according to context. According to Faye (2007), explanations are context-dependent, intentional, and goal-oriented communicative acts that occur in response to a question about a topic for which the interlocutor lacks information. Essential to explanations is that the case to be explained is understood as having in fact occurred and the explanation will supply missing information. Faye also acknowledged two types of explanations: description-giving explanations and reason-giving explanations (2007). In short, description-giving explanations are responses to "how" and "what" questions while reason-giving explanations are in response to "why" questions (Faye, 2007). Description-giving explanations are different from descriptions because description-giving explanations attempt to answer a problem relating to knowledge or fill in the teacher's lack of information. Descriptions are simply accounts of someone or something and do not attempt to solve an epistemic puzzle. In this study, I address explanations and descriptions together because they appear to be easily confused within the English language arts classroom.

Faye's pragmatic-rhetorical view of explanations does not require that explanations be "true" or "relevant" in order to qualify as explanations because, she argues, determining the truthfulness or relevancy of an explanation is not always possible (2007). The teacher may not know the "true" answer and even if she does, the teacher may still understand the student explanation. If the explanation is understood but "false", then is it not an explanation? Regarding relevancy, Faye questions what it is that establishes relevancy between an explanation and the question (2007). In teacher-student interactions, particularly with young students, some explanations may seem immediately irrelevant. For example, it is difficult to see any connection between "I have a dog" in response to "Why did Arthur help the bully?"

Explaining and defining in English language arts

Generally speaking, my understanding of an explanation is similar to that of Faye (2007) and Osborne and Patterson (2011). I understand explanations as an attempt to answer a question that poses a problem relating to knowledge that typically takes the form of a "why," "what," or "how" question. Based on authentic English language arts classroom talk, however, I recognize that explanations can occur in the absence of an explicit verbal question. As I will later show,

students produced explanations in response to sentence starters intended to elicit student talk and sometimes launched into an explanation when they received no response. These sentence starters (e.g., I think this because…) worked as indirect vehicles for the question, "Why do you think that?," but the teacher never uttered any explanation-seeking question. Furthermore, students often used interlocutor silence as an opportunity to explain. Only accepting as explanations explicit verbal questions would deny young children's ability to read between the lines and deliver explanations when explicitly or implicitly called on.

Explaining

Following Faye (2007), I classified explanations as falling into two categories: description-giving explanations and reason-giving explanations. A description-giving explanation is a response to spoken or unspoken "How" and "What" questions and must attempt to solve the inquirer's problem relating to knowledge. A reason giving explanation occurs in response to spoken or unspoken "Why" questions and must attempt to solve the inquirer's problem relating to knowledge.

Describing

I define a description as an account of someone or something. As explained above a description differs from an explanation (a description-giving explanation, in particular) because a description does not attempt to solve a problem related to knowledge. Also, a description does not require an explanandum. Based on findings from the first paper, I consider two types of descriptions: describe and describe the meaning of a word. Describe can be a prompted or unprompted account of someone or something. Describing the meaning of a word is a prompted or unprompted telling of the meaning of a word. In this paper, I use describing the meaning of a word synonymously with defining because I view definitions as providing accounts of words.

Contributions of the current study

What it means to explain and describe in English language arts and how English learners in particular explain and describe in the subject area has not been fully explored. With the arrival of the CCSS and increased attention to rigor and challenge, explanations and descriptions have become key academic speech acts that English learners will be expected to produce in the English language arts classroom and on state assessments. Therefore, this study draws upon work on explanations and descriptions from the philosophy of science and science education to better understand explanations and descriptions within the English language arts context. Since English learners are expected to produce explanations and descriptions within English language arts, an analysis of how they are explaining and describing in communication with the classroom teacher during English language arts has the potential to greatly inform our understanding of what English learners can do with the English language in authentic classroom interactions. Furthermore, this paper will serve as first steps to help the English language arts field clarify what is meant by explaining and describing within English language arts. By examining authentic fourth-grade English learner talk over the course of six months, I address the following research questions:

1. How do young English learners produce a certain type of academic speech acts particularly salient in the CCSS—explanations—in authentic communication with the teacher during English language arts?
2. How do young English learners produce a certain type of academic speech act particularly salient in the CCSS—descriptions—in authentic communication with the teacher during English language arts?
3. Are there differences in how "struggling" and "successful" English learners produce explanations and descriptions? If so, what are they?

Methods

The school and classroom

This study was the second part of a three-part study of English learner English language use during English language arts. The study took place over a period of six months at Sage Elementary in the northern California Bay Area. At the time of this study, Sage's 693 students were 67 percent Latino, 25 percent Asian, 2 percent African American, 2 percent Filipino and 2 percent White (California Department of Education Dataquest). Approximately 58 percent of Sage's students were classified as English learners and 76 percent of the students were eligible for free or reduced-price lunch. These student demographics reflect the school neighborhood where store signs and billboards are just as likely to be in Spanish as they are in English. The large number of English learners at the elementary school was the major factor in choosing the school as a research site.

The focal classroom was selected after consultation with the school principal and confirmation of adequate numbers of English learners in the classroom. This was a fourth-grade classroom where Ms. Nielson, the classroom teacher, made conscious efforts to design classroom activities conducive to student talk. Out of 32 students in Ms. Nielson's classroom, 19 were designated English Learners, 7 Reclassified Fluent English Proficient, and 4 English Only. Given the high number of English learners, nearly all students in Ms. Nielson's classroom spoke a language other than English. Most students were Spanish speakers, but a handful of students spoke Vietnamese. Although the large majority Ms. Nielson's students spoke a language other than English, they overwhelmingly used English during class time.

English language arts instruction

Six of the eight focal students' English language arts instruction took place in Ms. Nielson's classroom. English language arts instruction in Ms. Nielson's classroom made use of many of the same activities one would find during English language arts instruction in any typical fourth-grade classroom. The students worked on vocabulary, used graphic organizers, spent time correcting sentences presented as grammatically incorrect, read chorally from the reading anthology, answered teacher questions, and worked on writing.

In addition to typical fourth-grade tasks, however, Ms. Nielson took special care to design interactive activities that would increase student talk and participation. As described earlier, this is one reason why the school principal recommended I observe her classroom. Students in her class created questions about the reading selection and participated in question and answer group activities using their own questions. The academic year during which data collection took place, the school was implementing a schoolwide focus on writing. Rather than simply allot more writing time, Ms. Nielson had students write multiple expository and narrative drafts, share them with a partner, evaluate peers' writing, and provide feedback. Students were also encouraged to speak in complete sentences and Ms. Nielson frequently provided sentence starters and sentence frames for students during group discussions and when answering whole class questions.

Two students, Alexandra and Silver, did not receive English language arts instruction with their home class. Instead, they attended Ms. X's reading class for struggling readers for the entire English language arts block. Ms. X's class ran from late October to late February[3]. This reading class was half the size of Ms. Nielson's class and used *Inside*, an intensive intervention-reading curriculum. The class was for a combination of fourth- and fifth-grade students, most of whom

[3] Most of Alexandra and Silver's classroom talk is in Ms. X's class, but some is taken from Ms. Nielson's class after the intensive reading class ended.

were English learners. Ms. X's smaller class size was designed with the purpose of lowering the teacher to student ratio and increasing the opportunity for students to interact with the classroom teacher. Students in Ms. X's class worked on practice book pages, writing friendly letters, irregular verbs, and exercises aimed at vocabulary building. Vocabulary building exercises included choral reading of vocabulary words, making vocabulary cards, and games on the classroom computers.

The children

Eight fourth-grade English learners were chosen as participants for this study. The criteria for selecting participants were: (1) that they were classified as EL, (2) that they spoke Spanish, and (3) that they met the "struggling" or "successful" criteria described below. With the help of the classroom teacher, I identified four "successful" and four "struggling" ELs; two boys and two girls were selected for each "successful" and "struggling" group. "Struggling" ELs were identified by the following criteria: Below Basic or Far Below Basic on the California Standards Test (CST) English language arts and a score of below average in classroom English language arts assessments. "Successful" ELs were identified by the following criteria: Basic or Proficient on the CST English language arts and a score of average or above average in classroom English language arts assessments. Selecting focal students in such a way helped me capture the English language use of two distinct groups of ELs. The four struggling students were Alexandra, Silver, Jenny, and Jack. The four successful students in this study were Olivia, Jocey, Tommy, and Dominic.

Data sources

Audiotaped authentic language data

I observed and audiotaped the children for a period of six months, two times a week. During my observations, I systematically audiotaped the eight focal students during all subject areas except math. I drafted a recording schedule that permitted three students to each wear an audio recorder on the days of my visits, resulting in approximately three hours a day (10:15 am–2:15 pm, excluding lunch). Focal students placed a small recorder in their pocket and wore a clip-on microphone connected to the recorder. The microphone captured both the focal students' and interlocutors' talk. Having the focal students wear the recording device enabled me to capture their language use as they moved about the classroom and interacted with various class participants. While students were likely highly conscious of being recorded at the beginning of the project, they soon grew accustomed to wearing the recorder and often forgot that they were wearing it. Please see paper one for a full description of how authentic language data were.

Classroom observation field notes

Each observation day, I focused my field notes on the three ELs with the audio recorders. My field notes alternated between focal students every 30 minutes or so and provided nonverbal information that helped contextualize EL speech act production.

Three interviews and informal conversations with focal students

To better understand EL language use, I conducted three interviews and had frequent informal conversations with the focal students. Through our conversations, I learned about the classroom dynamics and individual personal preferences that help explain their classroom language use.

Four interviews and informal conversations with the classroom teacher

The interviews and informal conversations with the classroom teacher helped me learn her perception of the focal students' academic and language abilities. The first interview helped me identify the focal students who would participate in the study.

Classroom demographic data, focal EL test results and background information

Classroomwide EL status data and focal student test results were collected as a way to gain a basic understanding of the class population and focal student test performance. I collected focal student CST English Language Arts, CST Math, and English Language Proficiency test results. Focal student background information provided additional data to inform language use. I administered the background questionnaire orally. See Appendix A for the questionnaire.

Data analysis

Findings from this study relied on the initial identification of explanations and descriptions from the first paper of this dissertation. In paper one, I identified all the academic speech acts the focal children produced during English language arts. Explanations and descriptions made up four of the 57 academic speech acts found in the authentic English learner talk. Starting with the explanations and descriptions from paper one, I proceeded to code the type of question that elicited explanations or descriptions. I coded questions as how question, what question, who question, why question, and unspoken question. I quickly learned that teachers also used commands and sentence starters to elicit explanations and descriptions and added command and sentence starter to the elicitation codes. Analyzing for what elicited the explanation and description productions highlights what teacher talk signals to English learners that either an explanation or description is necessary.

Next, I added an additional, not informative code to capture explanations and descriptions that were incomplete and therefore not informative. For example, a student uttering "because um" signaled an attempt at an explanation but because the student did not continue the explanation and stopped at "um" the speech act was coded as not informative. The not informative code was helpful in that I was able to capture all focal student attempts at explanations and descriptions and then identify the not informative speech acts. Using a not informative code also allowed me to identify instances where the focal children began explaining or describing and were interrupted by the teacher.

Given that this study is concerned with explanations and descriptions in communication with the English language arts teacher, I pulled all of the explanations and descriptions produced in communication with the teacher from explanations and descriptions with peers and other adults. Then, I analyzed for differences between struggling and successful EL production of explanations and descriptions. Finally, I studied the explanations and descriptions the focal children produced while talking with the English language arts teacher for patterns in teacher-student communication that could help explain the children's production of explanations and descriptions.

Findings

In this study, I set out to investigate how English learners produce two academic speech acts salient in the CCSS—explanations and descriptions—in communication with their English language arts teacher. I was also interested in learning whether there were differences in successful and struggling student explanation and description productions. Analyses revealed the following key findings: (1) English learners produced more speech acts intended to describe than explain; (2) successful English learners produced all but one explain speech act; (3) English learners understood various teacher utterances, including silence, as cues for explanations and descriptions; and (4) teacher language use and English learner responses are inextricably connected and changing teacher questions or prompts alters appropriate English learner responses. I will elaborate on each of the findings in the sections that follow.

English learners produced more speech acts intended to describe than explain

Analyses of fourth-grade English learner talk as students engaged in academic tasks and communicated with their teacher in English language arts revealed that, as a whole, the

children produced more describe speech acts than explain speech acts. When looking at the academic speech acts produced across interlocutors, the children produced 72 describe speech acts and 61 describe the meaning of a word speech acts. Only 24 of the describe and 15 of the describe the meaning of a word speech acts, however, were produced in communication with the teacher. Across interlocutors, the children produced 7 description-giving explanations and 35 reason-giving explanations. Of these, however, only 3 description-giving explanations and 7 reason-giving explanations were produced in communication with the teacher.

What could explain the lower presence of explanations as compared to descriptions? One possible explanation is that English learners are not yet able to produce explanations at the same rate as descriptions. An alternative explanation is that English learners do not have as many opportunities to produce explanations as descriptions. That is to say, teacher communication with English learners may elicit more descriptions than explanations.

Successful English learners produced more explanations than struggling English learners

When looking at the explanations and descriptions produced by successful and struggling children, the data showed that successful English learners produced all but one explanation in communication with the classroom teacher. Although a reasonable explanation for the absence of struggling English learner explanations in communication with the teacher would be that struggling English learners were not yet able to produce explanations, my data show that this is likely not the case. Struggling English learners produced many explanations when talking with peers and myself.

Valdés, Capitelli, and Alvarez's (2010) three-year study of English learners with beginning English proficiencies found that explaining was the last productive language behavior the students produced. While the present study was not set up to measure academic speech act development over time, findings do support that explanations are not as present in English learners' academic speech act production as other academic speech acts. It is unclear, however, if this is the case because explanations are more difficult to produce or if there are not as many opportunities that call upon explanations in typical fourth-grade classroom interactions, particularly in communication with the teacher.

English learners understood various teacher utterances, including silence, as cues for explanations and descriptions

Understanding how the children produced explanations and descriptions in communication with the classroom teacher necessitates understanding what led the students to produce the explanations and descriptions. In other words, what is it that the children were responding to when they attempted explanations and descriptions? The talk occurring between teacher and English learner in English language arts was dynamic and no one type of question elicited one type of response. In fact, at times, English learners produced explanations and descriptions in the absence of explicit teacher questions. Other times, English learners produced explanations and descriptions prompted by teacher-provided (and required) sentence starters, but no explicit question. Table 1 below displays the cues English learners responded to when they produced explanations and descriptions.

Table 1: Explanation and description cues

Cue type	Description-giving Explanation	Reason-giving Explanation	Describe	Describe the meaning of a word
Sentence starter	My analysis of this fossil is that…	I think this because… I think the garbage can's gasping because…	The plants in Yosemite… My partner thinks that…	
No apparent cue	X		X	X
"What" question		In what way exactly? What do you think's going on? What does it help you with improve in your reading skills	What else did they come up with in terms of the garbage can? What was their analysis of the garbage can while they were in the garage? Jocey, what did the father do with the garbage can three days ago? In complete sentence please.	What do you think day care is? What is the care for? What is health in here? What does it mean?
"Why" question		Why? Why DON'T you think that there's a monster inside Olivia?		
"Why" + sentence starter		- Why? Because…		
"How" question			How hot was it? In complete sentence.	
Command			Tell about the day Tell about the details Tell how you felt about it	
Explain				How do you explain spoil?
"What" + Explain				When something is introduced, what does that mean exactly?

Cue type	Description-giving Explanation	Reason-giving Explanation	Describe	Describe the meaning of a word
				Olivia, one more time, explain
Other			Where is the Underground Railroad helping the enslaved Africans come from? Can someone name one of the details?	

The classroom teacher frequently used sentence starters to help students produce the expected language forms. Sentence starters served to cue description-giving explanations, reason-giving explanations, and the describe speech act. I found no evidence of sentence starters being used to describe the meaning of a word. Because the sentence starters were often used without an explicit question, using the starters required that the English learners work backward to identify the question they were using the sentence starters to answer. When used as the starting point, the sentence starters could become an added obstacle rather than support English learners' communicative abilities.

The children also used the absence of teacher questions or prompts as opportunities to produce description-giving explanations and both describe and describe the meaning of a word speech acts. They could have understood a nonverbal cue that I was unable to capture via audio-recording or simply offered an explanation or description because they deemed it appropriate. In terms of question types, "what" questions worked to cue all explanations and descriptions but description-giving explanations. "Why" questions only cued reason-giving explanations and "how" questions only cued the describe speech act. It is important to note, however, that teacher responses to student explanations and descriptions rarely signaled that the children had mistakenly provided a description when an explanation was necessary. That is to say, based on teacher responses, the children appeared to have made the expected response. Teacher responses, however, did focus on the response form and frequently called for complete sentences and use of sentence starters.

Description-giving explanations

A description-giving explanation is a response to spoken or unspoken "How" and "What" questions and must attempt to solve the inquirer's problem relating to knowledge. Out of 3,018 total speech act productions by successful and struggling focal students, only three were description-giving explanation speech acts in interaction with the classroom teacher[4]. Two description-giving explanations took place during one classroom activity and were produced by one focal student—Dominic. Dominic is considered a successful student in English language arts. Jenny, a student considered struggling in English language arts, produced the other description-giving explanation. Both Dominic and Jenny attempted description-giving explanations without an explicit explanation-seeking question. Dominic attempted two description-giving explanations that were prompted by sentence starters and Jenny's attempt at

[4] There were seven instances of description-giving explanations in the entire dataset, but only Dominic and Jenny produced them in interaction with the classroom teacher. Jenny produced one with the classroom teacher.

a description-giving explanation was freely provided with no clear prompt. I will discuss Dominic's description-giving explanations below.

In the excerpt below, Ms. Nielson has told the class that they will be continuing their work on the vocabulary word *analysis*. She has placed different types of rocks on each child's desk and wants the students to each analyze their rock. Ms. Nielson calls attention to the sentence starters she has posted on the white board.

Ms. Nielson The sentence fra:me is up he:re so that you ca:n make a goo:d complete a:nalysis of you:r fossil. [Okay.]
Dominic °°[Hey Arturo] lookit what I got °°
Ms. Nielson Remember that the: goa:l here is for you to lea:rn 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 i:s.
Can you do that?
Dominic °No°
Ms. Nielson And then you have a completed analysis. Okay. Ea:ch partner takes turns listen to the other one a:ll the way through, and then the other one make an analysis of their object.

After providing instructions, Ms. Nielson begins to assign the student partners.

Ms. Nielson Comple:te sentences! Use the words! Please use the sentence fra:me!
Use the sentence frames! One person gets started.

Okay Dominic you go first!

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

Dominic **Okay. My: ana:lysis of this fossil is tha:t**
I:t i:s a
hmmm
° Wait. Wait °
>I don't have anything<

Dominic begins his attempt at a description-giving explanation by using the sentence frame Ms. Nielson has asked the students to use. His description-giving explanation, however, is not informative in that he does not complete his utterance and only recites the sentence frame. He attempts to buy some thinking time, but quickly gives up and communicates to Ms. Nielson that he is unable to continue. Ms. Nielson steps in and attempts to assist Dominic's description-giving explanation by telling him that his object is a green block.

Ms. Nielson Co:me o:n! Just make up your-
-It's a green block!
Oka:y?

Dominic **My analysis of thi:s fossil is that it is a: gree:n, li:ght gree:n block.**
Ms. Nielson Oka:y keep going

Dominic picks up Ms. Nielson's assist and makes a second attempt at a description-giving explanation. This time he completes his explanation and Ms. Nielson prompts him to continue on to the next sentence frame he is to use. The next sentence frame, "I think this because I see," calls for a reason-giving explanation and will be discussed in the section that follows.

Reason-giving explanations

A reason-giving explanation occurs in response to spoken or unspoken "Why" questions and must attempt to solve the inquirer's problem relating to knowledge. A key feature of reason giving explanations is that they attempt to provide the speaker's reasoning and tend to use the conjunction "because." Out of 3,018 total speech act productions by successful and struggling focal students, only seven were reason-giving explanation speech acts in interaction with the classroom teacher[5]. Successful students produced all seven reason-giving explanations in interaction with the classroom teacher.

The excerpt below is the exchange following the description-giving explanation shared above. Ms. Nielson has accepted Dominic's description-giving explanation and is now prompting Dominic to use the sentence frame that calls for an explanation of why he has made the analysis that the fossil is a light green block.

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

Dominic's reason for describing the object as a light green block is that he sees lime green on the object. Ms. Nielson does not comment. He immediately moves on to the next sentence frame intended to describe the next step to verify his analysis.

Describe

To describe is to give an account of someone or something. Out of 3,018 total speech act productions by successful and struggling focal students, 24 were reason-giving explanation speech acts in interaction with the classroom teacher[6]. The excerpt below immediately follows the above exchange between Dominic and Ms. Nielson. Dominic begins with the sentence starter, but stops and communicates that he doesn't know how to continue the sentence. The description itself is not informative.

Dominic **I think the next step to take i:s-**
->What am I: supposed to say for that?<
Ms. Nielson Whatever you thi:nk you want to do about the next step to verify what you think it is
Dominic **The next ste:p to take is >see if you could color stuff<**
Ms. Nielson Oka:y.
((T rings bell))
Switch partners if you haven't done so already. Give the other person a chance. The sentence frames are right up there. Please use them. Continue please.

[5] There were 35 total reason-giving explanations in the dataset. Both successful and struggling students produced reason-giving explanations, but only successful students produced them in interaction with the classroom teacher.
[6] There were 72 describe instances in the dataset, but only 24 occurred in interaction with the teacher. Both successful and struggling students produced descriptions.

Ms. Nielson tells Dominic that he's supposed to finish the sentence by saying what the next step will be to verify his analysis of the object. Dominic describes his next step and Ms. Nielson walks away to close the activity.

Describe the meaning of a word

Describe the meaning of a word is a prompted or unprompted account of the meaning of a word. In this paper, I understand describe the meaning of a word as synonymous with defining a word. Out of 3,018 total speech act productions by successful and struggling focal students, 15 were reason-giving explanation speech acts in interaction with the classroom teacher[7]. Struggling students produced 13 of these speech acts and successful students produced 2.

In the excerpt below, Ms. X has asked Alexandra to *explain* the vocabulary word spoil. Alexandra begins providing her description of the meaning of spoil and other students begin to chime in. Ms. X listens to her description of the word and soon walks away to visit other groups.

Ms. X	[Alright spoi:l.] How do you explain spoil?
Alexandra	**There's two differe:nt wa:ys.**
	No:. spoi:l is something that you spoi:l. Something that doesn't work and spoil the other one.
Student 1	Spoil, like you spoil this sto:ry!
Alexandra	° Yeah °
Student 2	It could be like, it's nasty and expi:red.
Alexandra	There's two different wa:ys!
Student 3	No it's like your parents get you everything you want, [you're spoiled].
Alexandra	[NOO:!]
	Spoi:l means, that you spoi:l a book!
	You know what that means?
Student 1	Or the movie
Alexandra	Yeah

Ms. X's use of *explain* when requesting the meaning of a word highlights the confusion expressed by researchers in science education surrounding the term *explain*. Ms. X used explain when she was really asking for the meaning of a word and not for an explanation of how or why food spoils. Alexandra and her peers, however, appeared to understand that Ms. X was asking for the meaning of the word and not an explanation. I found three instances where *explain* was used by both Ms. X and Ms. Nielson to cue a description of the meaning of a word. As in the exchange above, the children appeared to understand that the teacher expected the meaning of a word and not an explanation.

Teacher language use works to cue different English learner responses. Not fully understanding the complex relationship between teacher talk and English learner response can lead to failure to communicate ideas.

As the excerpts of classroom talk above show, teacher language use worked to cue different English learner responses. Overall, the children understood the type of response the teacher expected of them and attempted to meet the expectations. At times, however, the children appeared to stumble on words and used academic delays such as "umm" and stretching of words to buy thinking time. When English learners appear to stumble, it is difficult for teachers

[7] Across interlocutors, the children produced 61 total describe the meaning of a word speech acts.

to gauge whether the children are having difficulty with the concepts or the language they're to use to deliver their ideas. In the communicative exchanges that follow, Ms. Nielson might be facing a similar challenge with Olivia. In an effort to support Olivia's response, Ms. Nielson attempts multiple question types. By changing her questions, however, Ms. Nielson is simultaneously changing the appropriate response types making it increasingly challenging for Olivia to identify the question. Olivia is considered a successful English language arts student.

For the last 20 minutes, Ms. Nielson and her fourth-grade class have been chorally reading *The Case of the Gasping Garbage* by Michelle Torrey. The young detectives in the story have just landed a new case where they are investigating why a garbage can is making gasping sounds. The client thinks 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 garbage can.

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.]
	[Yes!]
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 are also known as explanation-seeking questions. An appropriate response would be to provide an explanation where Olivia communicates her reasoning. The use of because is a direct way to provide a **reason-giving explanation**. After a two-second pause Olivia begins her explanation.

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 of providing a reason-giving explanation. She uses the conversational device *um* commonly used to buy thinking time. Ms. Nielson quickly latches onto the beginning of her explanation and 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?" The appropriate response, however, remains the same. Ms. Nielson is still seeking a **reason-giving explanation**.

After a generous eight-second pause, Ms. Nielson changes her question again, presumably in an effort to help Olivia respond. This time the question changes from a "why" question to a "what" question. 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 to describe what she thinks will happen next. These are both questions aimed at eliciting a description, but the appropriate responses have changed from tell me what you think *is* happening inside the garbage can to tell me what you think *will* happen in the story. Ms. Nielson provides a sentence starter to assist Olivia's response.

Ms. Nielson	What do you think is going on in the garbage can?
	What's your prediction?
	I think
Olivia	°I th[ink°]

Ms. Nielson I [think] the garbage can's gasping because

Ms. Nielson expands on the sentence starter and provides Olivia with more pieces to the 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.

Olivia	°I think the garbage ca:n is gasping becau:se u:m° ((2 sec 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 by Ms. Nielson and Olivia, Olivia fails to provide an informative response. After a four-second pause, Ms. Nielson moves on to another student. The entire exchange lasted just a little more than a minute.

Discussion and Implications

This analysis adds to prior research in science education that suggests a misunderstanding by the research community and K–12 community of what it means to *explain*. While prior discussion about *explanations* inside the classroom centered on science education, this study suggests that the misunderstanding may extend to English language arts. The term *explain* is used loosely in both the English language arts classroom (e.g., explain the meaning of spoil) and CCSS English language arts and literacy standards. Furthermore, as was demonstrated by Ms. Nielson's interaction with Olivia, teacher attempts to scaffold English learner responses may be unintentionally creating more challenges for English learner talk instead of supports. Like many conscientious teachers, Ms. Nielson worked to alter her question to help Olivia's response. What Ms. Nielson didn't realize, however, is that by changing the questions she was simultaneously changing the appropriate response. Not only was the change in question causing a change in appropriate response, but also changing the questions was altering the response from explanation to description and back to explanation again.

The use of sentence starters to aid English learner talk appears to be quite popular among teachers and professional development programs today. Results from this study show that sentence starters can and are used to cue appropriate English learner responses. Sentence starters, however, should be used cautiously with special attention to exactly the type of question and response they are cuing. Asking a question of any student and then requiring that they use a sentence starter that doesn't quite address the question type could confuse children and hinder their responses. Using sentence starters in this way could be especially detrimental to English learners as they are acquiring English while they accomplish academic tasks and communicate in the classroom.

As teachers, we are required to think on our feet and try different strategies and techniques to help our struggling students. I have no doubt that during my time in the elementary classroom I tried to help my language learners in a similar way as Ms. Nielson and Ms. X. If one question doesn't work, let's try another one. Results from this study highlight the importance of paying close attention to what we are asking our students to do through their responses. Might our students, particularly our English learners, be struggling to respond because they are unclear

which question or sentence starter to respond to rather than because they don't know *how* to craft a response?

By focusing on English learner production of explanations and descriptions in English language arts, I show that English learners are able to produce explanations and descriptions, but productions vary by successful and struggling students. Successful students produced all but one of the explanations in communication with the classroom teacher. What explains this difference in production? As mentioned earlier, struggling students produced many explanations in communication with other classroom interlocutors but only one when talking with the classroom teacher. One possible explanation is that, when communicating with the classroom teacher, struggling students had fewer opportunities to produce explanations than successful students. Classroom teachers might attempt to cue more explanations from successful and struggling English learners alike by posing questions with a problem relating to knowledge as opposed to simply asking English learners to provide an account of someone or something. In this study English learners have demonstrated that they are able to produce explanations and descriptions and by increasing their opportunities to produce them more frequently, they may continue to refine their abilities to provide increasingly difficult academic speech acts.

With regard to the question of how English learners will fare in light of more demanding English language arts standards, results from this study show that supporting English learners to meet the new expectations will require us to refine our current understanding of what we mean by explaining and describing and pay close attention to teacher language use. Communication does not happen in isolation. English learners communicate *with* others inside the classroom. By investigating how English learners produced explanations and descriptions when talking with the classroom teacher, analysis revealed that cues to explain and describe are used loosely inside the classroom. The quick changes in teacher cues suggest that teachers may not recognize the change in response their change in question or sentence starter signals. Furthermore, teachers may not recognize the added challenge rapidly changing questions add to English learners' attempts to provide an appropriate response. Teacher self-study of language use in real-time classroom interactions with English learners might help teachers understand the inextricable relationship between teacher talk and English learner talk. From there, we can begin to have deeper conversations about what it means to explain and describe in English language arts and how we can increase opportunities for their production inside the classroom.

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