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# Classroom Questions: How Mainstream Elementary Teachers Use Questions to Support Achievement for English Language Learners

Holly Wandersee

# Classroom Questions: How Mainstream Elementary Teachers Use Questions to Support Achievement for English Language Learners

by

Holly Wandersee

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Primary Advisor: Julia Reimer
Content Reviewer: Kimberly Canion
Peer Reviewer: Alissa Winters

# DEDICATION

To each and every one of the students in my classroom for continually reminding me to never forget the joy associated with this profession. Thank you for always giving me love and laughter when the world outside of the classroom feels so bleak.

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# CHAPTER ONE

## Introduction

When I think about the faces of my young English language learners staring back at me in the classroom each day, I desperately want them to succeed. At the beginning of each school year, I ask students to write about their hopes and dreams for the upcoming school year. Students happily write statements such as, "I hope to get better at writing," "My goal is to read more books," and "I want to be a good friend." While I watch the students complete this activity, my mind often wanders to my own hopes and dreams for these incredible learners. This capstone will focus on the needs of English language learners, which in this capstone I will refer to as ELLs or EL students. This group of students varies slightly from multilingual learners (MLs). MLs are all students who speak or understand multiple languages, while ELLs are the group of multilingual learners who have not yet reached a sufficient level of academic English proficiency and therefore receive additional educational services or support. Most English language development (ELD) teachers and second language acquisition (SLA) researchers agree that thirty minute pull-out groups with a specialized language teacher are not enough to support ELLs in the development of content knowledge and academic English (Stairs-Davenport, 2021). In light of this, my hopes for these students often fall into two categories. First, I hope they will walk into a mainstream classroom where they are met with a teacher who believes in their abilities and sets high expectations for them. Second, I hope the teacher who sets those high expectations also sets up scaffolds to help the students climb to their highest potential.

Educators who are particularly effective in their work with English language learners and other multilingual learners carefully utilize countless teaching strategies and routines throughout the day. These strategies may differ widely based on the context of instruction and the teacher's personal teaching style. The following literature review and study focus on classroom questions. While effectively using classroom questions to promote engagement and learning is only one aspect of a very complex job, it is an aspect that is critical to the success of ELLs. The following study is guided by the question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* The literature review and study explore the importance of questions in the classroom, how frequently ELLs engage with their teacher's questions as compared to their non-EL peers, what types of questions ELLs engage with as compared to their non-EL peers, and how questioning techniques correspond to language production and student achievement.

In order to fully explore the significance, scope, and importance of this topic of study, Chapter One will include several components about the development of the question and its significance in my own life and career. It will begin with a discussion of the topic's personal significance. I will discuss significant moments in my life that helped develop my passion and interest in this conversation. Following the discussion of my personal interest in the topic, I will outline the ways in which my professional experiences led me toward this topic and the ways this discussion is significant to me professionally. Third, this introductory chapter will discuss ways the current study will benefit the Teaching English to Speakers of Other Languages (TESOL) profession and provide valuable information for other stakeholders. Next, I will discuss the rationale and context of the study. Chapter One will conclude with a summary of the primary

elements of the chapter, an overview of Chapter Two, and an outline of the rest of the capstone including information about the methods, data analysis and conclusions.

**Personal Significance**

In elementary school, one day each week our class got to walk down the hallway to a computer lab full of blue desktop computers for a lesson on different ways to use this, at the time, new technology. While all of the new things my peers and I were learning about typing, creating digital projects, and online dictionaries were interesting, many of us were simply counting the minutes until we earned our free computer time. For me, this free time meant I got to spend time buying oxen, fording rivers, and protecting my family as we traveled the Oregon Trail. While this was a popular computer game among many students, my love for this time period went beyond a computer simulation.

This rather unique interest of mine developed because of a very special third grade teacher. Even now, nearly 20 years later, I can almost feel the excitement of the day my group got to go to the back carpet to take our turn in the literature circle. My best friends and I were thrilled with the opportunity to spend time with our teacher's complete attention reading a book she picked out just for us- a book about a young girl traveling the Oregon Trail with her family. Each day we listened as our teacher read or we took turns reading paragraphs or pages to the group. After a few days of reading, I realized that this special circle was something much different than our regular reading class. Typically during reading, we read short texts or stories and answered simple display questions. The answers could always be found right in the text, and they required very little deep thinking. However, during our literature circle, our teacher asked us to really think. We imagined how the main character must feel, we discussed what we would do on

the Oregon Trail, and we even dipped our toes into conversations about who really owned the land the pioneers were crossing.

After this experience, I read every book I could get my hands on about traveling the Oregon Trail. Once I exhausted my local library's selection of children's historical fiction about the Oregon Trail, the librarian helped me find similar topics, and the genres I enjoyed continued to grow. This excitement for reading changed my life. The more I read, the easier it became to understand the increasingly lengthy books I selected from the library. As I continued to discover topics I enjoyed, my stamina for reading blossomed, and my teachers and parents had to ask me to stop reading. As I read, my vocabulary expanded, and I was able to speak and write using advanced academic language. These skills paved the way for me to graduate from high school at the top of my class, pursue my interests in college, discover a career I enjoy, and pursue a Master's degree. This all happened because my third grade teacher sat down on the carpet with us and asked us questions that really challenged our thinking. Looking back on this experience, I know that it taught me the importance and power of the questions teachers ask their students. Now, as a teacher, one of my hopes for each student I see is that each student has a teacher who challenges them with deep questions and offers enough support and encouragement that they can access this type of critical thinking.

**Development of the Research Question**

Years after elementary school, as a college student, I found myself face-to-face with a young girl who would unknowingly impact the rest of my life just as much as, if not more than, our third grade literature circle. After growing up in a small Minnesota town where nearly everyone around me had very similar life experiences, I moved away,

went to college, and found myself volunteering as a tutor at a transitional housing center in Minneapolis, Minnesota. At the time, despite my fond memories of school, I had no experience in education and no aspirations to become an educator. However, on a cool fall day I looked into the pleading brown eyes of a fourth grader who desperately wanted to complete the math worksheet she set down on the table in front of me. Since we did not share the same language, we worked with drawings, gestures, some manipulatives, and lots of perseverance. Finally, we completed the assignment and my student wandered off in search of a snack.

After this day, I could not stop thinking about the challenges English language learners face every day in the classroom. I could not fathom starting school in a new country with an unfamiliar language. Since this experience, I completed my degree in TESOL and have worked as an English Language Development (ELD) teacher for several years. While it is not something I am always proud of, my interest in this field began because I wanted to help struggling learners. I was laser focused on their struggles and wanted to help. However, as I have learned more about multilingual learners, spent more time in the classroom, and interacted with my students' families, my perspective has shifted from a deficit mindset to more of an asset-based approach. The more I work with students, the more I am able to clearly see the immense wealth of knowledge and skills they bring to the classroom. This mindset shift has been an important lens as I began to think more about how teacher questions play a role in the education of ELLs.

Currently, as an elementary ELD teacher, many of my students come to my classroom for 20 to 60 minutes each day. During this time, we dive into vocabulary development, academic language functions, syntax, discourse, pragmatics, and countless

other lessons in language acquisition. This is a rich time of discussion, engagement, scaffolding, and community. However, after these few precious minutes end, many students return to mainstream classrooms overflowing with students with widely varying academic abilities, strengths, and needs, as well as a teacher who is a content expert but perhaps not a trained expert in second language acquisition or teaching academic language.

Like many other ELD teachers, I know deep down that this model is not working for all of our students. In order to best serve these students, the mainstream content classroom must also be a place where ELLs are given the opportunity to thrive and develop academic language. Building this type of classroom is no simple feat, so I began to think about small ways to make simple, doable changes, which led me back to my third grade literature circle. This experience impacted me so deeply because my teacher encouraged me to think deeply and critically about a text in a way the display questions of our regular reading class did not always do. Through the current study, I investigated how ELLs engage with the questions in their classrooms. I began this research study wanting to know if and how ELLs are getting the opportunities to engage with deep questions and critical thinking the way I did in third grade. I investigated what kinds of questions teachers ask, how often ELLs engage with a teacher's questions, and how the questions correlate with learning and language acquisition.

**Rationale, Context, and Positionality**

This capstone will discuss the question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* The primary goal of this capstone is to use classroom observations to understand how ELLs engage with questions in the classroom

and use that data to empower mainstream educators to better support the content and language instruction of ELLs. This study explores how frequently ELLs engage with their teacher's questions as compared to their non-EL peers, what types of questions ELLs engage with as compared to their non-EL peers, and how those questions correlate to student learning and language acquisition. The way teachers use questioning to guide students' thinking is an important part of each and every school day. This capstone is designed to uncover the realities related to how ELLs and their non-EL peers engage in daily discussions and questions in their classrooms through classroom observations. Understanding the realities of a classroom can then enable teachers to reflect on how their teaching supports ELLs and what improvements could be made to support all learners more effectively.

This study took place in the building where I currently work as an ELD teacher. The school is a pre-K - 5 elementary school in a rural, midwestern town. The school is relatively large, serving approximately 750 students. ELLs make up about 27% of the student body. These students' home languages are predominantly Spanish, Somali, and Karen. The school serves all different types of English learners including students who were born in the U.S., SLIFE (students with limited or interrupted formal education), and highly skilled newcomers. The study was conducted in a mainstream fourth grade classroom, which will be described in detail in future chapters. One of the primary goals of the study was to use observations to better understand the education of ELLs in the school in order to improve the teaching and learning for this population.

It is important to discuss the ways my personal life experiences impact the way I approach this capstone. My unique position in society has shaped my worldview and

created implicit biases, which in turn shape the way I approach this topic and capstone. First, my position as a middle class, white female means that I almost always saw myself reflected in the curriculum as a student. This created a lot of trust in teachers and the educational system. Students who have different experiences in school may not develop this same confidence and comfortability in the classroom, which may impact the way they interact with questions in the classroom. Additionally, my position and privilege means that while I have knowledge about second language acquisition theory and experience working with language learners, I do not personally have those experiences to truly understand what it feels like to be a multilingual learner in a U.S. school. I do not know what it feels like to answer questions in front of a large group using a second or third language. It is important to be aware of the impact my unique worldview has on this capstone, especially as the results are being used by teachers and other stakeholders to think about potential ways to improve instruction for multilingual learners.

**Significance to the Profession and Other Stakeholders**

This topic, discussed through the accompanying literature review and study, is significant to both mainstream content teachers and specialized ELD teachers. In addition, it will benefit other stakeholders including students, parents, and the community. This topic is very important for ELD teachers because of the need for ELD teacher leadership. Part of the changing role of ELD teachers is advocating for students in their mainstream classes and supporting the mainstream content teachers who teach those classes (Valdes et al., 2014). English language teachers must be prepared to support content teachers in their questioning strategies and the scaffolds they build to help students engage with those questions. Similarly, this discussion can support

mainstream content teachers who are looking for ways to help multilingual learners thrive in their classrooms. Teachers must become aware of whether or not their ELLs are engaging with the questions they ask, whether or not these questions enable students to think deeply and critically about the content, and what kind of support is imperative to help ELLs be successful in the content classroom.

In addition to teachers, this conversation and the current study is significant to students, parents, and community members. This thesis investigates the actual realities of a classroom and uses the findings to make suggestions regarding ways to promote the learning and engagement of ELLs. English language learners must be given the opportunity to develop age-appropriate content knowledge as they are acquiring language. Educators cannot wait for students to become proficient in English to provide them with academically rich and challenging content (Gibbons, 2015). This capstone is designed to critically examine how teachers use questions to support the learning of their ELLs in order to help foster a learning environment where multilingual students can be successful. The primary goal of the study is to better understand how to help students be successful when it comes to understanding and answering questions in the classroom. Similarly, parents deserve to know that their children are held to a high standard of achievement and are engaged in their learning. Finally, when schools produce students who are critical thinkers and able to respond to challenging questions, the community will benefit.

**Summary**

In summary, Chapter One began with a statement of the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* This was

followed by a discussion of how and why this topic is significant to me personally. Additionally, it discussed the professional and personal experiences that steered me toward this topic. Next, the chapter highlighted the rationale for the study, the context of the study, and how my unique position in society may impact the project. Finally, Chapter One discussed the significance of this topic to relevant stakeholders including teachers, students, parents, and the community. Chapter Two will provide a review of relevant literature related to this topic. The literature review will focus on important topics including second language acquisition theory, types of classroom questions, and how teachers' questions impact student learning and language output. Following the literature review, Chapter Three will discuss the methodology of the study. Chapter Four will focus on analyzing the data collected through the current study. Finally, Chapter Five will conclude this capstone with conclusions from the study as well as a discussion about next steps for stakeholders and areas of additional research.

# CHAPTER TWO

## Literature Review

### Introduction

Most English language learners, especially intermediate and advanced learners, who attend public elementary schools across the Midwest and the rest of the United States spend more time in mainstream content area classrooms than in language-specific classes (Stairs-Davenport, 2021). In these classes, ELLs are learning academic content as well as the required academic language to be successful in each subject area (Collier, 1995). Unfortunately, the teaching of academic language in the mainstream content area classroom is not always well understood or executed (Zwiers, 2007). There has been an increased emphasis on helping mainstream teachers develop skills and strategies to confidently and effectively teach the multilingual learners that make up a huge percentage of the student body in U.S. public schools (Valdes et al., 2014). In light of this emphasis, the current study addresses the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* In order to be successful in the classroom, ELLs must be given opportunities to use the required academic language as they interact with their teachers and peers (Long, 1983, 1996). One way to foster these important interactions is through the questions teachers ask their students.

Chapter Two provides a review of the literature concerning second language acquisition, classroom questions, and scaffolding and support for ELLs. The literature review begins with a brief overview of the importance of conversational interaction for second language acquisition with an emphasis on Michael Long's Interaction Hypothesis.This section provides an important foundation for why the discussion and

interaction created through questioning is critical in learning a language. The second section discusses types of classroom questions and how they impact student learning. Understanding the ways researchers categorize questions and how each type correlates with student learning impacted how data was collected later in the study. Third, this chapter will focus on reviewing studies concerning the questions English as a Second Language (ESL) and English as a Foreign Language (EFL) teachers ask their students in language classrooms. The fourth section of the literature review will describe relevant research and studies related to questions teachers ask ELLs in content area classes. There is significantly more research studying how ELLs interact with questions in the language classroom rather than in a mainstream, content classroom. This study was designed to address that gap, but understanding the research in both areas builds a base for the current study. Finally, the chapter will conclude with a discussion of ways in which educators can improve their practice to more effectively support ELLs in both the ESL/EFL classroom as well as mainstream content classes. ELLs are often able to engage with classroom questions, even complex questions, if they are given the proper support. Chapter Two will conclude with a brief summary of the literature review.

**Second Language Acquisition Theory**

Conversational interaction is an essential part of learning a second language because speakers must interact with each other, negotiate meaning through meaningful conversations, and produce the target language in order to acquire new vocabulary and grammatical structures (Lightbown & Spada, 2006). Understanding the ways interaction promotes second language acquisition helps set the stage for the discussion about teacher questioning in the mainstream classroom. The questions teachers ask their students is one

pedagogical tool that teachers use to promote communication and interaction in their classrooms; therefore, it is an important component of the way ELLs develop academic language in the mainstream classroom. The first part of this section will reference the work of influential psychologists and linguists from the late 20th century which has created a foundation for more recent research related to interaction, communication, and language acquisition. The second part of this section will explain the importance of interaction, negotiation of meaning, and output, specifically focusing on the work of Michael Long and Merrill Swain.

### *Foundational Theorists*

Components of modern second language acquisition (SLA) theory have roots in research about child development, learning theory, and child psychology. One of the most influential child psychologists of the 1900s, whose work has impacted the field of second language acquisition, is Lev Vygotsky. Vygotsky (1978), coined the term *zone of proximal development*. According to Vygotsky, this zone is the knowledge or skills that is beyond what children can do independently, but is available to them with the proper support. As children learn and grow, the knowledge and skills in this zone, just beyond their independent reach, gradually becomes something they can do independently (Lightbown & Spada, 2006). While Vygotsky worked in the field of child psychology, there were similar ideas emerging among SLA researchers. One of the most influential of these researchers was Stephen Krashen, who developed several hypotheses about SLA. One of his hypotheses was the input hypothesis which presented the idea of i + 1, where the "i" is what language learners know, and the +1 represents the language that is slightly beyond what they understand and can produce (Krashen, 1982; Lightbown & Spada,

2006). Similar to Vygotsky's ZPD, Krashen explained, "We acquire, in other words, only when we understand language that contains structure that is "a little beyond" where we are now" (1982, p. 21).

Both Vygotsky's and Krashen's theories agree that learning requires students to stretch a little. Their ideas were foundational for future research in SLA, especially the research concerned with interaction. Vygotsky (1978) asserted that the zone of proximal development is only accessible when the child is surrounded by a supportive interactive environment. Furthermore, he proposed that interaction and conversation between children and adults as well as children and other children is one way to promote learning and growth (Lightbown & Spada, 2006; Vygotsky, 1978). Krashen asserted that one way to acquire the language structures that are the *+1* is to expose learners not just to input, but comprehensible input, which is the input in an interaction and conversation that is modified in some way to help language learners understand what is being communicated (Krashen, 1982; Lightbown & Spada, 2006). Lightbown and Spada reminded readers that while some of Krashen's theories have been challenged, there is empirical evidence that students will acquire some language through comprehensible input without direct instruction. Both Vygotsky's ideas about conversational interaction and Krashen's theories about comprehensible input have influenced other SLA theories.

### *Interaction and Second Language Acquisition*

Expanding on some of Krashen and Vygotsky's work, several SLA researchers published work arguing that conversational interaction is critical for second language learners (Long, 1983; Pica, 1994). Long (1980, 1983) discovered significant differences in conversations between two native speakers and conversations between a native speaker

and a non-native speaker. He found conversations between native speakers and non-native speakers had a different structure and included different conversational modifications. Based on these observations and other research, Long introduced the Interaction Hypothesis. Lightbown and Spada (2006) summarized this theory by writing:

> Long inferred that modified interaction is necessary for language acquisition, summarizing the relationship as follows:
>
> 1. Interactional modification makes input comprehensible.
> 2. Comprehensible input promotes acquisition.
>
> *Therefore,*
>
> 3. Interactional modification promotes acquisition. (p. 43)

Long (1983) added to Krashen's theories by suggesting that learners need not only simplified and comprehensible input, but also interactional support and modifications such as comprehension checks, clarification requests, and self-repetition/paraphrasing.

Several other studies in the same time period supported Long's hypothesis. For example, Pica et al. (1987) conducted a study where they compared nonnative speakers' comprehension of instructions given with premodified input, which had reduced linguistic complexity, to instructions given with interactionally modified input. The researchers found that the premodified input did not have significant effects on comprehension, while the interactional input "played a critical role in comprehension" (p. 737). Pica et al.'s research gave empirical evidence for the importance of interaction, especially confirmation and comprehension checks, clarification requisitions, and repetition. In other words, interaction is a critical piece of understanding L2 input.

Similarly, Gass and Varonis (1994) found that interactional supports, such as those encouraged by Pica et al., lead to longer lasting learning than modified input alone.

Long later revised his hypothesis and included a greater emphasis on the corrective feedback and negotiation for meaning that takes place during interactions (Lightbown & Spada, 2006). Long (1996) argued that negotiation of meaning and feedback were both important components of developing vocabulary, morphology, and syntax in a new language. Years later, Gibbons (2003) added, "Meanings are constructed between rather than within individuals and are shaped by the social activity in which they arise and the collaborative nature of the interaction" (p. 268). Clearly, the discourse that happens between students and teachers in the classroom is an important part of language learning, and this interaction can help learners access their ZPD and grow in their language understanding and use.

Language learners are pushed into their ZPD or i + 1 through comprehensible input as well as interaction and negotiation. Furthermore, language learners can access this zone when they are forced to examine their own language skills and abilities. According to Swain's (1993, 2005) Comprehensible Output Hypothesis, when learners are interacting with another interlocutor, they are able to notice and understand the limits of their own language skills and abilities. Similar to the ways Vygotsky (1978) and Krashen (1982) hypothesized that input and interaction can push learners ahead in their development, Swain hypothesized that attempting to produce comprehensible output and reflecting on one's own abilities also pushes learners ahead (Lightbown & Spada, 2006; Swain, 1985). Both hearing and producing language are important components of language development and acquisition.

In addition to the large body of groundbreaking foundational research related to communication, interaction, and language acquisition, there are additional, more recent studies that support this perspective. In a study related to the brain and second language learning, Li and Jeong (2020) used neuroimaging technology to study differences between more traditional, rote language learning approaches and language learning through social interaction, with a focus on real-world challenges and conversations. They argue that the social brain plays a key role in language learning. In addition to having benefits for language acquisition, interaction and communication are important for learning academic content and being successful in a society where collaboration is an invaluable skill. In a research-based guide for educators, Hill and Miller (2013) explained that cooperative learning is an integral part of helping students learn academic language, academic content, and important life skills. Similarly, based on a study of young language learners in the mainstream classroom, Zwiers (2013) argued that the type of communication that occurs in a classroom can either cultivate or hinder both students' academic language acquisition and their content learning.

While there is a significant body of research that explains the importance of interaction in second language acquisition, there are other necessary components of successful language teaching and learning. A study conducted by Sato (1988), closely studying the second language acquisition of two young boys learning English, argued that interaction is not enough to ensure acquisition. Sato concluded, "Conversational interaction was insufficient to ensure the acquisition of particular complex syntactic structures in English, while encounters with written language, and the more complex syntactic structures this contains may well turn out to be crucial" (p. 83). Similarly, in a

text about instructed second language acquisition, Loewen (2020) noted that in some contexts and for some learners, explicit instruction of grammatical forms is more effective than a more interactive approach.

Based on SLA research, interaction alone may not be enough to acquire a new language; however, it is clearly an important part. In the elementary classroom, there are many opportunities for interaction every day. One simple way for teachers to promote interaction, whether that is teacher-to-student interactions or student-to-student interactions, is by posing questions. There are many research studies concerning the types of questions teachers ask in the classroom, and there are dozens of suggestions, based on this research, for teachers to improve their instruction and interactions.

**Classroom Questions**

Teachers have been asking students questions in the classroom for centuries, in fact, Marzano et al. (2001) wrote, “It is probably safe to say that cueing and questioning are at the heart of classroom practice” (p. 113). There is a significant amount of research about the types of questions teachers ask, the importance of questions, and the effectiveness of different types of questions on student learning. The first part of this section of the literature review will define and describe different types of questions teachers use in the classroom. This section will also provide a brief overview about how classroom questions are related to Bloom’s Taxonomy. Second, this section will explore research about how classroom questions are connected to student learning and achievement.

### *Types of Classroom Questions*

Teachers ask questions at an incredibly high rate in the classroom. One study found that elementary teachers were asking 45 - 150 questions every 30 minutes even though when asked, they guessed the number was closer to 12 (Nash & Shiman, 1974). Other studies found that in a single class period, some teachers asked up to 200 questions (White & Lightbown, 1984) while others asked approximately 395 questions each day (Guthrie, 2003). Based on the frequency of use, classroom questions are clearly an important part of instruction. Teachers use questions as both an instructional tool and an evaluation and assessment tool. Since there are so many purposes for classroom questions, scholars and researchers have created different categories of questions.

**Closed-Ended and Open-Ended Questions.** In order to study the questions teachers ask in the classroom and the effects those questions have on learning, researchers have created different systems to categorize and better understand questions. One way to think about questions is as either closed-ended or open-ended questions. Closed-ended questions require rote memorization and simple recall, and they are often answered with short, one or two word responses (Eliasson et al., 2017; Guthrie, 2003). For example, yes/no questions or simple wh- questions are considered closed-ended questions. On the other hand, open-ended questions require deeper thinking, and they are often answered with extended phrases or sentences (Guthrie, 2003). Open-ended questions "stimulate students' learning process and expand their thinking" according to Lee and Kinzie (2012, p. 858). Typically, the categories of closed-ended and open-ended focus on the length of the response and the depth of knowledge required to answer the question.

**Display and Referential Questions.** In the fields of second language acquisition and language teaching, scholars and researchers often categorize questions as either display questions or referential questions (Brock, 1985; Lee, 2006; Long & Sato, 1983; Wright, 2016). When asking a display question, the teacher already knows the expected answer and students are asked to "display their knowledge of comprehension, confirmation, or clarification" (Wright, 2016, p. 161). One example of a display question is, T: *What state of matter is ice?* S: *Solid*. Display questions often have one correct answer that the teacher is looking for. On the other hand, teachers do not know the response to referential questions before asking them. These questions require students to share their own thoughts, opinions, and analyses of classroom content. Referential questions are more authentic than display questions, meaning that they are used for actual communicative purposes (Wright, 2016; Lee, 2006). One example of a referential question is, T: *How are you similar to and different from the main character in the story we are reading?* While closed-ended and open-ended questions are distinguished from one another based on the length and complexity of the required response, display and referential questions are distinguished from one another based on the content and originality of the response.

**Other Classifications.** Concerned with the quantity of lower order questions and the lack of higher order questions in classrooms, reformers, researchers, and teachers began to develop more complex systems for categorizing questions with the hopes of helping teachers think more carefully about the types of questions they ask their students (Guthrie, 2003; Lee, 2006). One of the most prominent systems that emerged was based on the work of educational researcher Benjamin Bloom. The six levels of Bloom's

taxonomy (knowledge, comprehension, application, analysis, synthesis, and evaluation) can be used by teachers to develop a greater variety of questions that require different types of thinking (Guthrie, 2003). Questions at the knowledge level typically require students to remember or recall factual information they have been taught. Questions at the higher levels require different types of higher order thinking skills, such as applying, analyzing, synthesizing, or evaluating (Eliasson et al., 2017).

The aforementioned question classification systems focus on questions related to teaching and learning the content of a particular course or lesson. However, much more conversation occurs between teachers and students throughout a typical class or school day. In order to address all teacher-student communication, Ritchhart (2009) published a typology of classroom questions. This classification system includes five categories of questions: recalling and reviewing, procedural, generative, constructive, and facilitative. Recalling and reviewing questions ask students to remember basic facts, procedures, and terminology. Procedural questions are questions that focus on procedures rather than content. For example, teacher questions regarding directions, checking for attention, and organization are considered procedural questions. Generative questions are authentic questions that ask students to explore the topic. These are questions related to the students' own thoughts, and the teacher does not know the answers before asking the questions. Constructive questions are questions that invite students to build new understandings by linking concepts, evaluating ideas, or extending their thinking. Finally, teachers ask facilitative questions in order to clarify concepts, generate discussion, or request elaboration. This typology is particularly useful for understanding questions in the classroom because it includes a category for the functional rather than pedagogical

questions teachers ask. Work by researchers such as Bloom and others can provide greater insights into questioning practices and their effects on student learning and achievement.

This capstone used combinations of the categories open-ended, closed-ended, display, and referential in addition to a category for functional questions in order to understand the frequency and types of teacher questions in the classroom as well as how they impact content and language learning. The first type of questions are closed-ended display questions. These are questions such as, “What is the biggest state in the United States of America?” In this study, questions may also be classified as closed-ended referential questions. These are questions such as, “What is your favorite color?” They only require brief, one-word answers, but they are referential questions, requiring students to share their own ideas. Third, there are open-ended display questions, such as “Why are there 50 stars on the American flag?” When asking these questions, the teacher is looking for a specific correct answer, one that he or she already knows the answer to, but an answer that requires the student to produce an expanded phrase or sentence. Fourth, there are open-ended referential questions, such as, “Which character in the story do you admire the most and why?” These questions require students to provide an extended, unique response. Finally, in this study, some questions are classified as functional questions. These are questions necessary for the organization of logistics of the school day, but do not directly relate to the academic content being taught in the lessons. For example, “Can you please pass out the papers?” is a functional question. These different types all appear during classroom instruction, and the different types of questions can impact student achievement in different ways.

### *Effects on Student Achievement*

One purpose of research related to classroom questions is to discover practices that improve student achievement. There are three main findings about the connection between questions and achievement. First, higher-order thinking questions, referential questions, and questions higher on Bloom's taxonomy have been linked to increased critical thinking, and researchers promote the use of both referential and higher-order thinking questions in general education settings because of their connection to deeper learning (Hill & Miller, 2013). According to Guthrie (2003), there are mixed results in the research concerning the connection between referential and higher-order thinking questions and student achievement; however, most scholars agree that "higher-level questions encourage higher-level student thinking" (p. 313). Nunan (1989) argued that referential questions prompt students to engage in deeper levels of thinking and processing as well as increased effort. In a text about student achievement, Marzano et al. (2001) agreed that higher level questions require students to apply their learning which requires a deeper level of learning and understanding.

In addition to promoting critical thinking, higher-order thinking and referential questions also encourage lengthier and more varied student responses. Researchers have found connections between open-ended questions and lengthier student responses with more varied vocabulary. Through observations of pre-K science lessons, researchers Lee and Kinzie (2010) found:

> With regard to language use in student responses, we found open-ended questions were more likely to elicit responses employing a more varied vocabulary and more complex sentence structure. In contrast, closed-ended

> questions tended to elicit short responses, often single words, employing a limited range of vocabulary. (p. 872)

Similarly, in a study investigating questions in the science classroom, focusing on differences between boys and girls, Eliasson et al. (2017) warned that using too many display questions takes aways students' opportunities to practice talking about science through extended discourse. They went on to theorize that without opportunities for interaction, students, especially girls, may develop negative attitudes toward science and the science classroom. Overall, studies suggest that more complex questions lead to more interaction and extended responses in the classroom.

While there are many studies illustrating the ways in which open-ended and referential questions are linked to critical thinking and deeper understanding, it is important to note that the type of question should be related to the expected outcome of the task or lesson. Depending on the pedagogical goals of the class, unit, or lesson, different types of questions may be better suited for promoting growth and learning. . Nunan et al. (1996) asserted that the "choice of questions should depend on the objective of the lesson and the size of the class" (as cited in Qashoa, 2013, p. 59). While it is important to understand how questions impact content learning for all learners, it is also important to understand the ways questions specifically impact ELLs.

**Classroom Questions in the ESL/EFL Classroom**

Teachers who teach ESL or EFL also use questions to help guide students, keep students engaged, and assess student progress in second language acquisition. While the research question is focused on questions ELLs interact with in the mainstream, general education classroom, this section will discuss several different research studies, all

conducted in ESL or EFL classrooms in order to better understand teacher questioning practices in the ESL/EFL classroom. The first part of this section will discuss the research concerning the different types of questions ESL/EFL teachers ask in their classrooms. The second part will discuss the ways in which different types of questions impact student learning, student output, and second language acquisition in the ESL/EFL classroom. It will also discuss the researchers' suggestions for more effective ways to use questions with English language learners in order to promote second language acquisition.

### *Types of Questions ESL/EFL Teachers Ask*

Researchers all over the world have investigated different ways English teachers use questions in their classrooms. Many of these researchers have concluded that teachers in the ESL/EFL classroom use display questions far more frequently than they use referential questions (David, 2007; Long & Sato, 1983; Omari, 2018; Shafeei et al., 2017). This finding has since been supported by several other studies. For example, in one study, Omari found that Jordanian EFL teachers use lower-level display questions 80% of the time. In another study, David discovered that Nigerian English teachers used display questions 85% of the time. Shafeei et al. found that Malaysian English teachers also tend to favor display questions over higher-order thinking questions.

On the other hand, several researchers have found that in some contexts, the use of referential questions outnumbers the use of display questions. Zohrabi et al. (2014) found that while display questions outnumber referential questions in beginner and intermediate English classes, once students reached advanced levels, this trend was reversed and referential questions were used more frequently. In a study of two ESL

classes in Auckland, Yang (2006) discovered that referential questions outnumbered display questions in the observed elementary classrooms. This finding was attributed to the unique class sizes as well as the particular curricular and pedagogical goals of the classrooms.

### *How Types of Questions Impact Language Use*

**Referential Questions.** Interaction is an important part of learning a new language (Long, 1983, 1996; Pica, 1994). Researchers who ascribe to the importance of interaction and output in the language learning process have found that referential questions can support language learners in three primary ways. First, they can increase the amount of interaction between speakers. The research indicated that referential questions can lead to more interaction in the classroom. This includes interaction between peers as well as student - teacher interactions. In a study investigating the responses of adult EFL students in Japan, Wright (2016) noted that during a communicative task, when referential questions were used, students engaged in more negotiation of meaning. Furthermore, when interviewing the participants of the study after the task, students expressed that they were motivated to put in extra effort to craft accurate responses. After studying the two ESL classes in Auckland, Yang (2006) reported, “It can be seen from the data that the teacher’s referential questions can motivate more student involvement” (p. 7). Zohrabi et al. (2014) wrote, “Therefore we can say that the lack of linguistic resources shouldn’t be considered as an excuse for avoiding referential questions which our results indicated that lead to more interaction at the elementary level” (p. 99). Zohrabi et al. also advocated for the use of more referential questions in classrooms because,

"open questions provide the respondent with the greatest opportunity to participate" (p. 10).

In addition to more interaction, researchers have found that referential questions can increase the length of students' responses to questions. Studies have also indicated that referential questions lead to lengthier student responses in the target language. One study, conducted in an adult ESL program found that student responses to referential questions were statistically longer than their responses to display questions (Brock, 1985). Other researchers have also found that student responses to referential questions were longer than responses to display questions (Wright, 2016; Yang, 2006) . The length of student responses is important to teachers who ascribe to the importance of both interaction (Long 1983, 1996) and output (Swain, 1993) in the process of learning and acquiring additional languages.

Finally, the research has also indicated that higher numbers of referential questions can lead to an increase in the complexity of language for ELLs. Studies have indicated that referential questions lead to student responses that are more grammatically and syntactically complex (Brock 1985; Yang, 2006; Wright, 2016). In fact, Wright reported:

> This study's findings indicate that students, when responding to referential questions, appeared to be trying to paint a clearer picture in the mind of the questioner, whereas for display questions, they aimed only at "joining the dots" of the teacher's prescribed picture. (p. 185)

These three major benefits of referential questions suggest that they should be used on a regular basis in both the ESL/EFL classroom and in the content classroom.

**Display Questions.** While there is a significant body of research promoting the importance of referential questions, the importance and effectiveness of display questions should not be ignored. There are three primary ways that display questions help students learn. First, display questions can be used to meet specific pedagogical goals in the content classroom. Display questions are an effective way to teach certain skills and assess student progress. Guthrie (2003) reminded readers that display questions can more efficiently teach certain concepts or skills that simply require repetition and memorization. After studying science classes in the United Arab Emirates, Qashoa (2013) found that display questions are very effective ways to review material, warm-up the class, and engage large numbers of students very quickly. Display questions can also be used to build the foundational understandings students need in order to access more complex ideas, and according to another researcher, "Teachers should consider how display questions can be used as a foundation (or raw material) to construct more complex understandings" (Zwiers, p. 110).

Clearly, there is a useful context for display questions in the classroom, but there are also ways that display questions promote the type of interaction students need in order to acquire a new language. Additional studies have shown that display questions, when used in a specific way, can foster and increase communication and interaction in the language learning classroom. Two researchers, Lee (2006) and David (2007), found that ESL teachers were asking large quantities of display questions. After an analysis of student and teacher interactions in university ESL classes, Lee urged teachers not to disregard the importance of display questions and argued, "display questions are central resources whereby language teachers and students organize their lessons and produce

language pedagogy" (p. 28). Through this research, Lee found evidence that display questions promoted communication and interaction, enabled teachers to make repairs to student output, and helped students begin the inquiry process. David found that in the Nigerian classes he studied, teachers' display questions promoted interaction and that simply asking a higher-order question did not guarantee that students would engage in higher-order thinking. Qashoa (2013) asserted that the quantity, quality, and length of student responses were more dependent on the way teachers interacted with their students rather than the type of question asked.

Studies have shown that effective classrooms, both content and language classrooms, use a balance of display and referential questions. In a text about teaching academic language, Gibbons (2015) reminded both language and content teachers to use a balance of the two types of questions. After studying several EFL classes, Zohrabi et al. (2014) also recommended that teachers should utilize both display and referential questions. Overall, the research suggests that display questions are beneficial for language learners when they are used to promote interaction and when they are complemented by the use of referential questions. Qashoa (2013) wrote:

> It would be risky to generalize the idea that display questions are useless and they elicit only short answers or referential ones are useful for language learning and they produce long answers. Instead, their use should be determined by students' levels, lesson objectives and student learning strategies. (p. 59)

There is a large body of research related to questions in the ESL/EFL classroom; however, since many ELLs in U.S. public schools do a large portion of their learning in

mainstream, content classrooms, it is important to look beyond research from the language classroom.

## Classroom Questions for ELLs in the Mainstream Classroom

While the previous section, as well as the majority of the research related to ELLs and classroom questions, focused on questions in the ESL/EFL classroom, this section will discuss research about the questions ELLs interact with while learning content in English. First, this section will discuss several reasons why academic language instruction needs to take place not only in the ESL classroom but also in mainstream, general education classes. Second, this section will discuss the types of questions general education teachers ask the ELLs in their classrooms. It will address research about questions teachers ask in content classrooms, how those questions impact learning, and the rationale for those questions.

### *ELLs in the Mainstream Classroom*

English language learners comprise a very high percentage of K-12 students in the United States. De Jong et al. (2013) reminded readers that in many K-12 schools in the United States the number of ELLs is increasing dramatically. Unfortunately, ELLs are not always successful in the mainstream classroom, and Collier (1995) attributed this struggle to a lack of understanding and knowledge of academic language, which is the vocabulary, syntax, grammar, and discourse of school and the academic community. De Jong et al. (2013) reminded readers, “Mainstream teachers of ELLs work in increasingly demanding educational environments in which both language and academic content must be taught, learned, and assessed in high-stakes contexts” (p. 90). Both language specialists and mainstream teachers are now expected to teach both language and content in order to

fully prepare their multilingual students for success. In order to achieve this, many teachers may need to revisit their questioning practices.

### *Teacher Questions in the Mainstream Classroom*

Questions are an important part of the instruction of ELLs in the mainstream classroom. In an article about building language skills, Hill and Flynn (2008) suggested that one way to help ELLs practice the new language and content they are learning is by asking numerous questions. Since ELLs in U.S. public schools are learning content and language simultaneously, it is important to understand how teacher questions are supporting that learning. It is critical to examine the research about the types of questions teachers are asking and focus on differences between ELLs and non-ELLs. Through observations of middle school classes, Zwiers (2007) collected data about questioning and academic language in the mainstream classroom. Similar to researchers who have studied the questioning practices of ESL/EFL teachers, Zwiers found that teachers asked display questions at much higher rates than referential questions. He also found that teachers asked non-ELL students open-ended questions at much higher rates than they asked ELLs open-ended questions. In a study of elementary science content classes for English learners in Malaysia, Meng et al. (2012) found that teachers only used display questions in their teaching of the science content.

When thinking about the types of questions ELLs are being asked and answering, it is important to note both the problems with high numbers of display questions and the positives of high numbers of display questions. In the literature, there are both positives and concerns related to the types of questions ELLs are engaging with in the classroom. The use of primarily display questions with little attention to open-ended questions can

limit ELLs' opportunities for critical thinking and deep exploration (Guthrie, 2003). Zwiers (2007) argued that since ELLs were not being challenged with open-ended questions, they were missing the opportunity for exploration and higher order thinking. Additionally, according to Zwiers, another major issue with this finding was, "Display questions lead students to believe that learning and schooling largely consist of figuring out what the teacher wants to hear" (p. 110).

However, there are also pedagogical reasons for questioning practices centered around display questions. Display questions serve many important purposes for ELLs. They provide an entry point into the conversation and can be a form of comprehensible input. Additionally, successfully answering any question, even a simple one can be an emotional boost for young language learners (Meng et al., 2012). Additionally according to Lier (1988):

> Such [display] questions have the professed aim of providing comprehensible input and of encouraging early production. I shall suggest by and large, what gives such question types their instructional, typically L2-classroom character is not so much that they are display rather than referential, but that they are made with the aim of eliciting language from the learners'. (as cited in Meng et al., 2012, p. 2608)

Through classroom observations, Qashoa (2013) found that display questions can foster just as much interaction and communication in the classroom as referential questions.

In addition to the types of questions teachers are asking, according to Meng et al. (2012), it is important to understand the reasons teachers ask the questions they do. Teachers may use display questions rather than referential questions with their ELLs for

various reasons. They may assume the students are not capable of answering the referential questions; the students' language proficiency may impede their ability to answer the referential questions; and the content of the course or lesson may not be suited to referential questions.

## Scaffolding and Support for ELLs

The final section of the literature review will discuss research-based practices for using teacher questions to promote academic language acquisition for ELLs in the mainstream classroom. Most ELLs spend more time of their school day in the mainstream classroom than in sheltered language classes. In these content classes, English learners must learn both the content and learn academic English (Zweirs, 2007); however, many mainstream teachers are underprepared for the task of teaching both content and language (Stairs-Davenport, 2021). This section will explain ways in which educators can use scaffolding to help ELLs respond to questions that require more critical thinking and extended responses. First, it will explain the ways teachers can examine their own dispositions in order to more effectively support their ELLs. Second, it will explain skills strategies teachers can utilize to help their students understand and answer all types of questions. This section will also make connections to the second language acquisition theories discussed at the beginning of the literature review.

### *Teacher Dispositions*

Sometimes, teachers' dispositions and opinions impact their teaching. In an explanation of why teachers ask closed-ended and display questions at such high rates, Omari (2018) reasoned that perhaps teachers used primarily closed-ended, display questions because they thought their students would not be able to come up with their

own, unique answers. In response to this sentiment, Hill and Flynn (2008) offered an important reminder to educators and wrote, "A teacher should not mistake ELLs' limited level of output for their ability to think abstractly" (p. 49), and Omari suggested that more training may help teachers begin to help teachers successfully use questions to help their students, even students will limited language skills, answer higher-order questions. Zwiers (2007) also promoted the use of higher-order thinking questions with ELLs and asserted, "Perhaps most importantly, teachers should analyze their own questioning distribution practices to make sure that English learners are receiving their fair share of open and elaboration questions" (p. 110). Teachers should believe that their students have the cognitive abilities and educational right to engage in communicative discussions that encourage critical thinking; however, they also need to be able to carefully select and use teaching strategies that enable ELLs to participate in these discussions.

***Teacher Strategies***

Research about teacher questions and ELLs has produced many suggestions about how teachers can support ELLs. There are many simple scaffolds and supports that can and should be used in order to help ELLs access more complex questions. After studying the types of questions teachers ask, Zohrabi et al. (2014) suggested that teachers should give students both extended wait time and chunks of language to help them answer referential questions. Zohrabi et al. (2014) suggested giving these types of supports because then, "we can say that the lack of linguistic resources shouldn't be considered as an excuse for avoiding referential questions which our results indicated that lead to more interaction at the elementary level" (p. 99). Similarly, in a study observing the teaching practices of a mainstream fifth grade teacher, McNeil (2011) analyzed different ways the

teacher used teacher-student interactions and dialogue as a scaffold that enabled the ELLs in her class to engage with referential questions. For example, students gave more successful responses when the teacher offered scaffolds such as increased wait time, modeling of a response, or peer supported responses. Another strategy to increase student achievement is to keep questions focused on the most important content rather than discussing expendable interesting content (Hill & Miller, 2013).

In addition to offering various supports and scaffolds, questions can be adapted in order to align with a student's language proficiency level. Hill and Flynn (2008) emphasized that questions can be modified to fit a student's level of language development, and they offered several suggestions about how to engage students with questions higher on Bloom's taxonomy while keeping in mind their language proficiency. Similarly, educational researchers Hill and Miller (2013) asserted that teachers must use all levels of Bloom's taxonomy with all levels of language learners. In order to successfully do this, they suggest planning a few questions that promote deep thinking but are appropriate for beginning language learners for one lesson each day. McNeil (2011) advocated for ELLs and asserted, "Engaging students in collaborative thinking within the Zone of Proximal Development empowered them to participate linguistically in mainstream classroom practices and exercise their voice" (p. 402).

Overall, there are many ways to support ELLs with the questions they must answer in the classroom, such as wait time, offering chunks of language, dialogue, and adapting questions. ELLs need support in areas in their school day other than just questioning, but revisiting questioning practices is just one of the many ways to empower multilingual students.

## Conclusions

Through this investigation of prior scholarship and research, there are multiple conclusions that can be drawn regarding classroom questions and ELLs. First, there are clear benefits of open-ended, higher-order thinking, and referential questions for both content and language learning. While there are uses and benefits of other types of questions, questions that require unique extended responses are a critical component of learning. When using questioning with ELLs, their language proficiency levels should be considered and used to differentiate instruction and expectations; however, all students can access some types of critical thinking through questioning with the proper scaffolding and support. The goal of this study was to investigate how ELLs interact with questions in the mainstream elementary classroom and to use that data to make suggestions for the instruction of ELLs in the mainstream classroom.

## Summary

This review of the literature explained various aspects of classroom questions as well as previous research about the topic in order to better understand the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* The literature review began with a brief discussion about second language acquisition theory and research. It emphasized the groundbreaking work of Michael Long and the interaction hypothesis. Next, the review of the literature focused on classroom questions. It provided an overview of different ways to classify questions as well as an overview of research about how classroom questions relate to student achievement. Third, it provided a discussion of classroom questions teachers ask in the ESL/EFL classroom. The review of the literature also discussed specific research related to

questions teachers ask ELLs in the mainstream or content classrooms. Finally, the literature review included a discussion of the ways in which teachers can provide scaffolding and support for ELLs to help them successfully respond to questions in the classroom. The literature review concluded with conclusions from the literature.

Chapter Three will discuss the methodology for the current study which will address the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* Specific information about the research choices and paradigm will be discussed. Additionally, Chapter Three will describe the setting and participants of the study in detail. The chapter will also describe the research methodology, data collection tools, and the data analysis tools.

# CHAPTER THREE

## Methodology

### Introduction

The number of English language learners attending K-12 public schools in the United States is continually growing (Zwiers, 2007). According to the Minnesota Department of Education (2021a), 8.5% of students enrolled in Minnesota public schools in 2020 were ELLs. In order to reach their potential in mainstream content classes, ELLs must develop advanced academic language skills (Collier, 1995). One way to promote language development, including the development of academic language, is through interaction with both teachers and peers (Gibbons, 2015; Long, 1996). One common way teachers promote interaction with and between their students is through asking and answering questions. Therefore, this study was created to investigate the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* The vast majority of research related to teacher questions and ELLs is focused on the language classroom rather than the mainstream content classroom. Since ELLs in U.S. public schools spend large portions of their school days learning content and language simultaneously in the general education classroom, the current study focuses on mainstream teacher questions rather than the questions that language teachers ask. The study was designed to explore the realities of how ELLs engage with questions in the classroom through observations of a mainstream elementary classroom.

Chapter Three will explain the current study and methodology. This chapter will begin with an explanation of the research paradigm and research methods. This section will explain the rationale for each decision about qualitative design of the study, citing

relevant research and scholarship. Second, Chapter Three will discuss the setting of the study. It will describe the school where the study took place, including information about the students, the staff, and the community. Third, this chapter will describe the participants of the study. This chapter will also discuss the IRB process, which will be followed by a detailed description of the methods and procedures of the study. Following the description of the research procedures, Chapter Three will explain the data collection tools and data analysis techniques. The chapter will conclude with a summary. Before any methodology can be discussed, it is critically important to address the rationale for the design of the study.

**Choice of Research Paradigm and Method**

This study utilized a multi-faceted qualitative approach to data collection that included classroom observations and a teacher survey. The qualitative data was supported by some numerical data in order to more clearly understand patterns and themes. According to Mills (2011), a qualitative approach to data collection is often more appropriate for classroom research than a quantitative study in which a teacher assigns students to either a control group or an experimental group to collect data. Creswell (2014) suggested that a qualitative approach is the most appropriate when the researcher wants to better understand a concept, while quantitative approaches are the most appropriate when the researcher is looking for factors that cause a particular outcome or testing an intervention. The goal of this study was to explore the actual realities of a classroom, rather than test the effectiveness of some sort of treatment, so a qualitative description of the classroom clearly and efficiently addressed the research question. The qualitative approach explored how ELLs engaged with questions in the mainstream

content classroom. Since the majority of the research about classroom questions and ELLs is focused on the language classroom rather than the content classroom, this qualitative study added to the growing body of knowledge about language development in the mainstream classroom.

Data was collected in two ways. First, data was collected through passive classroom observations. The data collection sessions were video recorded and later analyzed. In order to focus on the ways one type of classroom event, teacher questions, related to language learners and language production, general classroom observations were supplemented with systematic classroom discourse analysis. According to Rymes (2010), classroom discourse analysis involves identifying a distinct classroom event, categorizing the language related to the event, and noting any language variations during those events. Classroom discourse analysis can be a productive research methodology for teacher-researchers because it enables the researcher to narrow their focus to particular events in the classroom. This study focused on the classroom event of teacher questions and data was collected about the language of both teachers and students during those events. Second, data was collected through a teacher survey that included open-ended, reflective questions. The survey questions focused on the types and quantities of questions that the teacher asks. Mills (2011) suggested that using a combination of observations and interviews allows the researcher to collect complementary data. Including both observational data and the teacher's own words and opinions provided a clear picture of the classroom because it included both factual data about what occurred in the classroom as well as reflective quotations from the teacher. Some of the data could be quantified and expressed numerically, while notes about what the teacher did and her

reflective statements provided additional qualitative insight to better understand the numerical data.

In summary, this study utilized a qualitative approach to data collection that was supported by numerical data in order to collect evidence about the current realities of classroom questions for ELLs in the mainstream classroom. Data was collected through classroom observations and a teacher survey in order to paint a complete picture of the classroom environment. The setting of the study played a role in the results and the information that was collected, so it is important to fully understand the setting where observations took place.

**Setting**

This study took place in an elementary school in a rural, midwestern community with a population of approximately 20,000 residents. The school is one of three elementary schools in the community, and it serves approximately 750 students in preschool through fifth grade. Twenty-seven percent of the students are ELLs, and about 5% of the ELLs in the school are newcomers (attending U.S. schools for less than one year). Some of these students are highly skilled newcomers, arriving with strong educational and literacy backgrounds in their native languages, while others arrive with very few previous educational experiences. The primary home languages represented are Spanish, Somali, and Karen, but there are several other languages represented among the student body. Additionally, 65% of the students at the school qualify for free and reduced lunch and 13% receive special education services (Minnesota Department of Education, 2021b).

During the school day, the majority of ELLs receive 20 to 40 minutes of small group language support from a licensed ESL teacher. This primarily occurs in pull-out small groups; however, some students participate in co-taught classes. ELLs spend the majority of their school day in the mainstream classroom with a homeroom teacher. The students receive reading, math, science, social studies, and social-emotional instruction in their homeroom classes. This instruction includes a combination of whole group and small group instruction. According to the Minnesota Report Card (2021b) about 25% of these teachers have advanced degrees, and all teachers have participated in additional training regarding strategies to support ELLs in the mainstream classroom.

Unfortunately, a large percentage of the ELLs in the school are struggling to meet grade level expectations in both reading and math. For example, in the class that participated in the study, none of the ELLs met expectations on the statewide reading assessment taken in the spring of the previous school year. Therefore, the primary goal of this study was to investigate the realities of the experiences of ELLs in their mainstream classrooms in order to identify areas where the educational experiences of ELLs could be improved, and it will address the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* This section described the setting where the study will occur, focusing on the community, school, students, and teachers. The next section will add more detail about the participants in the study.

**Participants**

This study took place in a general education fourth grade classroom, with one general education teacher and 22 students. Seven of the students were ELLs. According to the most recent data from WIDA's ACCESS 2.0 for ELLs assessment, two of the

students were Level 1s (entering), two of the students were Level 2s (beginning), and three of the students were Level 3s (developing). The students' home languages included Spanish and Somali. Additionally, there were two students in the class who had IEPs. The teacher has a Master's degree in education and has been teaching at the school for 11 years. There were specific steps that were followed in order to protect the anonymity of the students participating in the study and ensure that the research process was beneficial to the students, teachers, and community who were involved.

**IRB Process**

In order to conduct any research or collect any data, the methodology of the current study was approved by the Institutional Review Board at Hamline University. The review process began with a formal, written plan of the methods and data collection procedures. This plan was presented to the Institutional Review Board prior to conducting any research or collecting any data. Once the procedures and methods were approved, written consent was collected for any students participating in the study. This took place in the form of a consent form that was signed by each participant's legal guardian(s) and returned to school. Each family received information about the purpose of the study and how to contact the researcher. The letter clarified that all participants' personal information would be kept confidential. Additionally, these letters were translated into languages other than English for those families who preferred to communicate with the school in a language other than English. Students who did not return signed consent forms were excluded from all video recordings and no data about the students was included in the study. The IRB process was important because it is a formal process that ensures that any research being conducted is ethical and beneficial to

the students and the school community where the study took place. The IRB process was the first step in the methods and procedures of this study, which will be explained in more detail in the next section.

**Methods**

The procedures for the study included the following steps. First, I recruited a teacher who was willing for observations to be conducted in his or her classroom. It was important that the class had a significant number of ELLs at varying language levels and that the teacher had a positive viewpoint about participating in the study. Before observations occurred, I briefly discussed the study with the teacher. I shared that the goal of the observations was to understand more about how ELLs communicate in the mainstream classroom, and I encouraged her to teach as she normally would. At this point, I also collected the consent forms from students in the classroom where guardians were given the opportunity to approve or deny their child's permission to participate in the study.

Second, I conducted five observations in the selected mainstream classroom. These observations were ten minutes long and took place over a three-week period in the spring. The observations took place during whole group science and literacy lessons. During observations, I video recorded the lesson, and I wrote detailed field notes about anything that was relevant and related to the teacher's questions and her students' answers. These notes focused on information about three things: the content of the lesson, student engagement and participation, and anything the teacher did that helped her students succeed. These notes were added to the notes column in the Question Observation Form (see Appendix A). I also made sure to write down the information

about the time, data, content, and students present for the recording session. After the session was recorded, I went back and transcribed all questions and responses accurately using the Question Observation Form (see Appendix A). Data was collected about the following items:

1. How many questions the teacher asked
2. What types of questions were asked (closed-ended display, closed-ended referential, open-ended display, open-ended referential, or functional)
3. What type of student response was given and/or required (single student, partner discussion, choral response, action, other)
4. Which student(s) responded to each question (ELL or non-ELL; if the responding student is an ELL, data about their WIDA level will be noted. WIDA levels come from the most recent ACCESS 2.0 for ELLs data available)
5. The length of the response (number of words)

Shortly after all observation sessions were conducted, the mainstream teacher completed the Post-Observation Teacher Reflection Survey (see Appendix B). Once again, the qualitative, anecdotal information from my notes and the survey were used to supplement the numerical data collected using the Question Observation Form (see Appendix A). As mentioned, there were specific forms and research tools that were used to track this data, and they will be discussed in depth in the next section.

**Research Tools**

Part of the data collection included classroom observations. In order to collect this data, the lessons were video-recorded and I, as a passive observer, took notes about the lesson. The lessons were video recorded in order to allow me to look back and accurately

transcribe every question the teacher asked and see which students answered each question. After the lesson, I entered all data into the Question Observation Form (see Appendix A). This form allowed me to understand several components of the teacher's questioning. First, it included information about what kinds of questions were asked. These questions were divided into five categories: closed-ended display, open-ended display, closed-ended referential, open-ended referential, and functional questions. The form also included information about how students responded. Response types include single student responses, partner (or small group) responses, choral responses, or action responses. Finally, the form tracked whether ELLs or non-ELLs were answering each question and how long each of the responses were. Observations were an important part of this study because they were able to reveal the actual experiences of ELLs in their mainstream classroom with a general education teacher.  All of this data could be clearly and simply expressed using percentages and data tables to compare how different students are participating in the classroom. Segments of the data could also be transcribed and used as anecdotal evidence related to the ways students interacted with their teacher's questions in the classroom.

The second part of the data collection included a survey of the teacher. The responses to the questions on the Post-Observation Teacher Reflection Survey (see Appendix B) were recorded on a printed version of the form. The questions elicited information about the teacher's perception about the number and types of questions they asked and their goals for instruction. This provided an additional component to the study, allowing me to better understand the research question from a mainstream teacher's perspective. After data was collected using the form and survey, it was analyzed and used

to draw conclusions about how the ELLs were participating in the classroom and how instruction could be improved for ELLs in the mainstream classroom.

**Data Analysis Methods**

Several different types of data were collected and analyzed in this study. First, qualitative and numerical data was collected using the Question Observation Form (see Appendix A). This data included information about several things. First, the form was used to record the date, time and content of the lesson. It also included information about the number of students present and the levels of the ELLs in the classroom. Additionally, the data included the numbers of questions teachers asked and what kinds of questions they were. The questions categories included closed-ended display, open-ended display, closed-ended referential, open-ended referential, and functional questions. Using the Question Observation Form (see Appendix A), every question the teacher asked was transcribed and labeled based on what type of question it was. Also, the data included information about how students were asked to respond. Their responses were categorized as single student responses, where one student answered the question and the teacher listened and gave feedback, partner responses, where pairs or small groups of students discussed the teacher's question, choral responses, where the class was asked to say the answer as a group, and action responses, which required students to use an action or gesture to indicate their response. The data included information about which students answered each question, noting whether they were an ELL or non-ELL. During partner responses, choral responses, and action responses, this section was used to record how many students were engaged and responding. Finally, the form included information about how detailed each response was by counting the number of words in the response.

This data was able to be quantified, studied and analyzed using percentages, tables, and graphs. For example, the data enabled me to compare how many and what types of questions ELLs and non-ELLs are answering in the classroom. I focused on differences between ELLs and non-ELLs in order to find patterns that may help improve the engagement and instruction of ELLs in the mainstream classroom.

Second, some of the data that was collected and analyzed was more anecdotal. Through my role as a passive observer, I was looking for unique findings or patterns in the data during the observation, focusing on the ways students interacted with their teacher's questions. Mills (2011) suggested that teacher-researchers use field notes and observations to look for any paradoxes or "bumps" in the classroom or lesson they observe (p. 87). According to Creswell (2014), qualitative research is effective when the researcher does not know exactly what to look for. Observations have the power to reveal unexpected findings, such as unique student responses or unique teacher-student interactions, so during the classroom observations, I wrote notes in the final column of the Question Observation Form (see Appendix A) about anything unique or interesting that was happening in the classroom. These notes focused on information about anything the teacher did that helped her students succeed. Later, I looked for any connections between those notes and the rest of the information collected on the Question Observation Form (see Appendix A). Similarly, the data collected from the teacher survey was used as anecdotal evidence to help support any conclusions drawn from the classroom observation data and field notes or provide potential explanations for the data that was discovered. After the observations, I once again looked for any connections

between the teacher survey and the information collected in the Question Observation Form (see Appendix A).

**Summary**

Chapter Three discussed the methodology of the research study and the ways it was designed to address the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* It began with an explanation of the research paradigm and methodology with research-based rationale for each decision. Second, Chapter Three discussed the setting of the current study, giving important information about the school, staff, students, and community. Third, this chapter discussed the participants of the study. Next, Chapter Three explained the procedures of the study, specific data collection tools, and an explanation of the way the data will be analyzed. Through the observation process, interesting and instructive data will be collected. Chapter Four will explain and analyze the data collected in this study in order to make conclusions and recommendations that will benefit the students who participated in the study as well as their peers in other classrooms.

# CHAPTER FOUR

## Results

### Introduction

Teachers ask questions in their classrooms constantly throughout each lesson, and throughout each school day educators ask many different types of questions for many different purposes. This capstone was designed to address the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* This study of one fourth grade classroom was designed to explore what kinds of questions mainstream teachers are asking, how frequently English language learners are responding to their questions, and how different classroom practices can increase the engagement of ELLs in the mainstream classroom in order to answer the research question.

The goal of this chapter is to analyze and interpret the data collected in this study. Chapter Four begins with more information about the teacher and classroom where data was collected. It then explores and analyzes the data that was collected in the study. The data analysis will begin with a discussion about the types of questions the teacher asked in her classroom. Next, it will discuss connections between the teacher's questions and student engagement. Following the discussion about engagement, this chapter will explore the techniques the teacher used to help students learn more effectively. The chapter concludes with a summary of Chapter Four.

### Classroom Information

The data collected in this qualitative study came from classroom observations, field notes, and a teacher survey which were all part of a small-scale study of one classroom. The data was collected from a fourth grade classroom in a public school in a

rural, midwestern community. During the time of the classroom observations, there were 22 students in the class. Of the 22 students, seven were considered to be ELLs and qualified for extra language services from a licensed English language development teacher. English language learners comprised an average of 30% of the class over all of the sessions since not all students were present for every classroom observation. According to the students' scores from the previous school year's WIDA ACCESS 2.0 language proficiency assessment or the WIDA Screener if students did not take the WIDA ACCESS 2.0 test, two of the students were Level 1s, two students were Level 2s, and three were Level 3s. The class also had two students who recently exited from the ELD program and two students who had IEPs. The ELLs' home languages were either Spanish or Somali, two of the most common home languages in the school district.

At the time of the observations, the teacher, Ms. A (a pseudonym) had been teaching fourth grade in the school for 11 years. In addition to being an experienced teacher, she also has earned a master's degree in education and had recently participated in extra professional development related to the instruction of ELLs in the mainstream classroom. This professional development was presented through whole staff learning during staff meetings as well as a voluntary book study after school.In addition to participating in this professional development, Ms. A regularly consulted with the ELD teachers at the school about ways to best support students. The fact that Ms. A chose to participate in a voluntary book study related to supporting ELLs in the classroom and continually seeks new learning opportunities to become a more effective teacher indicated that this was a component of her teaching that it was important to her. The demographics of the classroom where data was collected, including information about

both the teacher and the students, played an important role in the analysis and interpretation of the data.

## Teacher Questions

According to the literature, elementary teachers typically ask anywhere from one to five questions every minute (Guthrie, 2003; Nash & Shiman, 1974). During the classroom observations in this study, Ms. A asked an average of 28 questions every 10 minutes or 2.8 questions per minute. Teachers ask many questions throughout the day, but not all questions are exactly the same, nor do all questions promote the same type of learning for students. This section will explore both the types of questions teachers ask and how students are asked to respond to those questions.

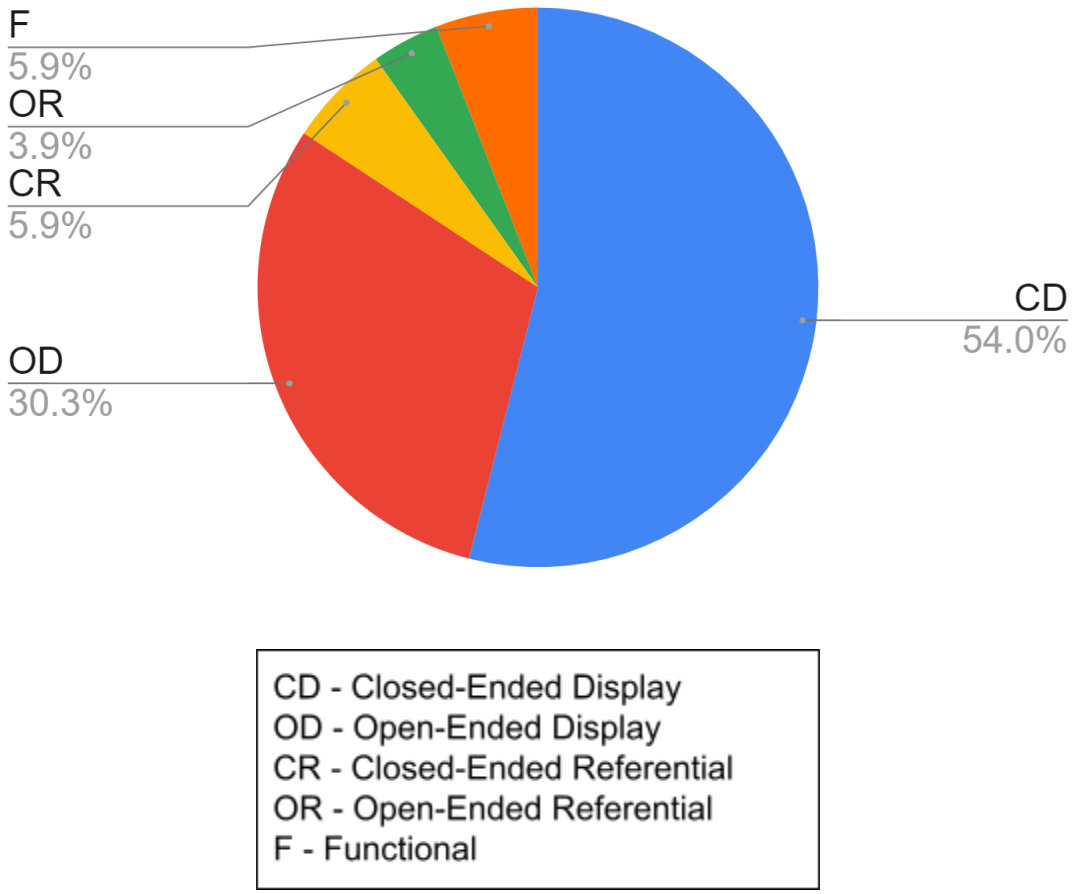
### *Types of Teacher Questions*

As discussed in Chapter Three, teacher questions were divided into five different categories based on the response type and length required by the question. The categories were closed-ended display, closed-ended referential, open-ended display, open-ended referential, and functional. Researchers agree that all types of questions have specific purposes and are necessary for effective teaching and learning (Qashoa, 2013). However, educational researchers often stress the importance of both referential questions and open-ended questions. Referential questions are important because they require students to express their own unique thoughts and opinions, and open-ended questions are important because they require students to explain ideas or concepts using phrases and or sentences that exceed the one or two word responses required by closed-ended questions. Both of these types of questions are especially critical for ELLs who need to interact in English in order to increase their understanding of academic language (Wright, 2016;

Yang, 2006). Overall, Ms. A asked each of the five types of questions during the observations, but she asked the different types of questions at very different rates. The types of questions she asked can be seen in Figure 1, below.

**Figure 1**

*Types of Questions*




As discussed in Chapter Two, referential questions ask students to give a response that the teacher does not already know. In this study, 9.8% of the teacher's questions were referential while 84.3% were display questions (the remaining 5.9% were functional questions). These numbers are consistent with findings from Omari (2018) and David (2007), who both found that 80 - 85% of the teachers' questions in the classrooms they studied were display questions. The referential questions that teachers do ask in the

classroom are incredibly important for student learning. Two types of referential questions emerged from the data collected in the study: questions about personal opinions and questions related to creative problem solving. After I transcribed and categorized Ms. A's questions onto the Question Observation Form (see Appendix A), I returned to the referential questions, and as I read them, I noticed two different types of referential questions were used, and I called these two groups *personal opinion questions* and *creative problem-solving questions*. First, Ms. A. used personal opinion questions. She asked this type of referential questions when she wanted to know a student's opinion about a particular topic. For example, the teacher asked "What kind of ice cream are you tasting?" While the type of ice cream students were imagining did not directly relate to their understanding of imagery and sensory details in poetry, asking students to share their own thoughts and opinions with their class appeared to increase engagement and a sense of classroom community. The second type of referential questions that emerged from the data were creative problem solving questions, which were questions that required students to apply knowledge to new situations or contexts. For example, one question from this study was, "Why did you solve the problem this way?" This question required students to explain their own creative thinking related to solving a problem, a task that required a deep understanding of the content as well as application and creativity. While both types of referential questions that Ms. A asked are important in a classroom, the referential questions where students need to apply knowledge to new situations or contexts support deeper learning and are therefore critical in a classroom setting (Hill & Miller, 2013). In Ms. A's class 46.7%, of her referential questions, or 4.6% of her total questions, were referential questions that were also creative problem solving

questions. This type of question supports deep learning and understanding (Hill & Miller, 2013), so asking more questions like these may help students become better critical thinkers.

In addition to understanding how many display and referential questions teachers ask, it is also helpful to think about open-ended and closed-ended questions. As mentioned in Chapter Two, both open-ended and closed-ended questions are important; however, ELLs need an opportunity to interact with one another using academic language in order to increase their listening, reading, writing, and speaking skills (Long, 1983, 1996; Pica, 1994). Open-ended questions require students to produce phrases and sentences, which is an important part of language learning. According to one article discussed in Chapter Two, about two thirds of teachers' questions in the mainstream classroom are typically display questions that only require the recollection of facts while the remaining one third of teachers' questions require extended responses (Guthrie, 2003). This study revealed that 59.9% of the teacher's questions were closed-ended while 34.2% of the questions were open-ended, numbers which are similar to what previous research has found. When comparing Ms. A's questions to the statistics found in other studies in the literature, the percentages of open-ended and closed-ended questions were similar, and overall, the data collected related to display, referential, open-ended, and closed-ended questions was very similar to information collected by researchers in other mainstream classrooms.

In many of the studies discussing types of questions teachers' ask their students, the researchers urged teachers to ask more open-ended and referential questions that require critical, original thinking and extended responses. For example, Guthrie (2003)

wrote, “Much of the current research and teacher education has focused on… creating more challenging and meaningful classroom questions” (p. 311). However, if Ms. A’s classroom is indicative of other mainstream classrooms, the recommended changes are not being made, even though they have been part of the dialogue in the field of education for many years. Ms. A’s survey responses indicated at least potential explanation about why she does not ask more referential and open-ended questions. In the survey, she indicated that she often asks lower-level questions in order for some struggling students to feel successful and answer a question correctly. Additionally, Ms. A shared in her survey that she tries to plan good questions ahead of time, something educational researchers suggest as a way to increase the amount of open-ended questions in a classroom (Hill & Miller, 2013). When she is planning her questions, she attempts to ask questions at various levels of Bloom’s taxonomy, intentionally asking questions that require both lower-order thinking and higher-order thinking. According to Ms. A, she noticed that students learn and improve when they have a strong base understanding of the content, which she builds by using simpler, closed-ended display questions. Once students have a solid foundation of understanding, she challenges them to apply it by asking more complex questions. Overall, it is important to understand what types of questions teachers are asking, but it is also important to understand which students are responding to the questions and how their responses are linked to learning.

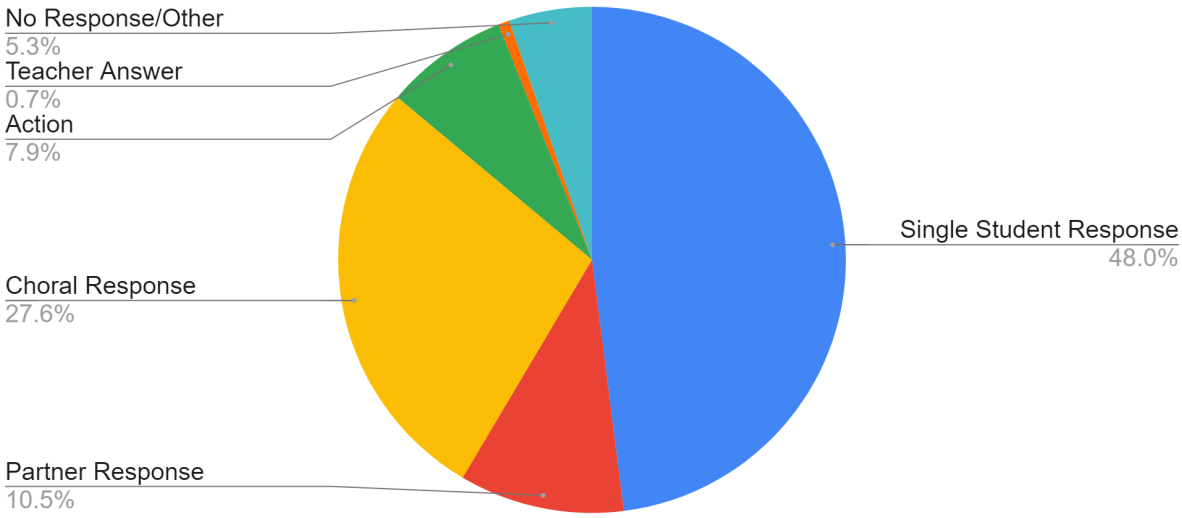
***Types of Student Responses***

Simply asking complex questions does not guarantee that students will master content or increase their academic language skills. In this study, the teacher asked students to respond to her questions in different ways. During the classroom observations,

students responded to questions in four different ways: single student responses, partner or small group discussions, choral responses, or actions. The ways students responded to questions can be seen in Figure 2, below.

**Figure 2**

*Types of Student Responses*




Providing different ways for students to respond to questions may open a door for increased levels of engagement for all students. There are a few conclusions that can be drawn from the types of student responses Ms. A's questions required. First, 46% of the teachers' questions invited all students to participate. Partner responses, choral responses, and action responses give all students an opportunity to respond to the question instead of only one or two volunteers who share with their whole class. Additionally, these responses create a less stressful environment for students who may be shy or hesitant to speak in front of an entire class. For example, during a partner response students can talk with just one other student. Similarly, 7.9% of Ms. A's questions asked for a physical action as a response. This type of response is especially effective for ELLs who may be

hesitant to speak in front of the class or not yet have a language ability in English to respond verbally to respond. The ways Ms. A asked her students to respond gave all students an opportunity to participate, but it is also important to understand which students were engaged with her questions, focusing especially on the ELLs in her classroom.

## ELLs' Engagement

While the questions that teachers ask their students play an important role in student learning, it is equally, if not more, important that students are engaged in listening, understanding, and responding to the questions. This is especially true for ELLs, who need interaction in order to acquire content and language (Long, 1983, 1996; Pica, 1994). Throughout the classroom observations in this study, students responded to their teacher's questions by raising their hands and giving a response in front of the class, talking with partners or small groups, responding chorally as a class, and even using actions to indicate their answer. Throughout the different ways they were asked to respond to questions, ELLs were engaged at different rates and in different ways.

### *Single Student Responses*

In a typical classroom, teachers frequently ask the entire class a question, wait for students to raise their hands, and call on individual students to answer in front of the class. As mentioned in the previous section, 48% of Ms. A's questions were answered by one student in front of the class. Of those questions, 24.7% were answered by ELLs while the remaining 75.3% were answered by non-ELLs (see Figure 3 below). Considering that 30% of the students in the classroom were ELLs (see Figure 4 below), these percentages

show that ELLs are answering proportionally fewer questions in front of the class than their peers; however the gap is minimal.

**Figure 3**

*Single Student Responses to Questions*

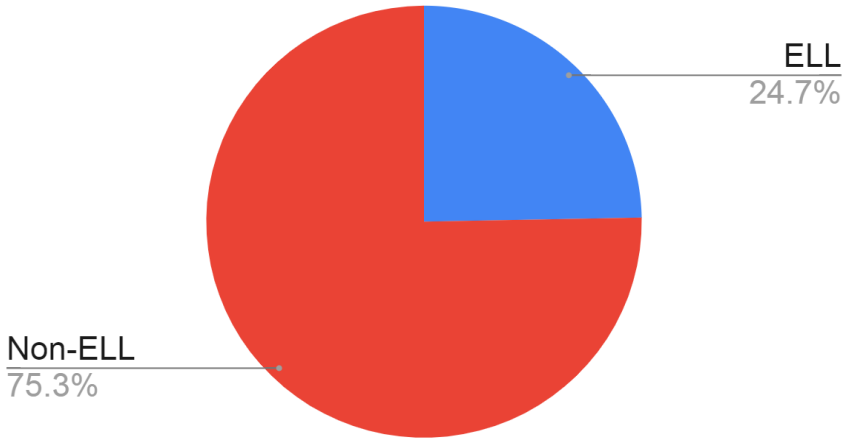
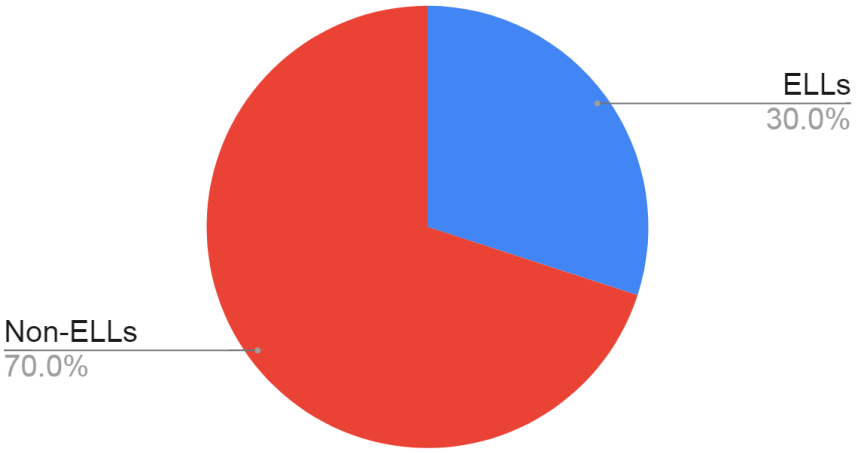



**Figure 4**

*Classroom Make-Up*




Of the classroom questions that were answered by a single student, ELLs were answering questions at close to a proportional rate as their non-ELL peers. While this

indicates that the ELLs in Ms. A's class were almost as engaged during instruction as their non-ELL peers, it is also important to understand what types of questions they were answering. According to Zwiers (2007) and as discussed in Chapter Two, most researchers agree that ELLs tend to answer fewer open-ended questions and questions that require unique thinking than simpler, closed-ended or display questions. However, throughout the classroom observations, ELLs answered open-ended and closed-ended questions at a nearly identical rate, as noted in Table 1, below.

**Table 1**

*Question Response Rates*

| | **ELLs** | **Non-ELLs** |
|---|---|---|
| **Open-Ended Questions** | 25.0% | 75.0% |
| **Closed-Ended Questions** | 26.7% | 73.3% |

There are several classroom factors at play that may correlate with the high number of ELLs responding to questions, especially open-ended questions. First, Ms. A reported that throughout the school year, she placed a high level of importance on building a classroom culture where students felt safe and welcome. She also used social-emotional lessons to teach students the importance of learning from their mistakes and working hard in the classroom. Additionally, the classroom observations in this study occurred in the spring, near the end of the school year; therefore, by this time of the year students knew their peers and teacher very well and may have felt more comfortable taking a risk to answer questions in front of the class. Third, through professional development and a book study, Ms. A spent a considerable amount of time during the school year learning about strategies to support ELLs in the mainstream classroom,

which may be connected to higher academic performance for the ELLs in her classroom. When considering single student responses, the ELLs in Ms. A's class were engaged with both her open-ended and closed-ended questions at nearly the same rate as their peers, but students were also asked to answer questions in different formats, such as partner responses or choral responses.

***Partner Responses***

During whole group instruction, individual students answer many questions in front of the class; however, teachers also invite students to discuss questions in pairs or small groups in order to give all students an opportunity to talk about the answer. In Ms. A's class, students were regularly asked to talk to their "shoulder-to-shoulder partner" about different questions or prompts. In fact, 10.5% of Ms. A's questions asked for a partner response. During these discussion times, an average of 46% of the ELLs in the class were responding to the question and discussing it with their partner. The remaining ELLs were either listening, sitting quietly, or off-task in another way such as looking for a pencil or drawing. During these responses, the participation level of non-ELLs was approximately 66%. Interestingly, during classroom observations, there was only one partner response question when 100% of ELLs responded and discussed with their partner. When asking this question before asking students to talk with their partner, Ms. A supplemented her question with gestures and a physical model of what she was asking students to talk about. These supports may have contributed to the increased ELL student engagement for that particular question. Giving all students the opportunity to respond to a question often increases engagement for the whole class, but, for ELLs, these questions are more effective when they are asked along with gestures, physical models or other

language support. The language support that accompanies the questions is critical for ELLs.

**Support for Students**

In a classroom, teachers' questions can serve many different purposes. They can be used to assess the students' knowledge and understanding, they can be used to get to know students and build community, and they can also be learning opportunities for students. According to the notes gathered during classroom observations, during her whole group instruction, Ms. A did not only present information to the students and require them to learn by watching and listening to her, but she also regularly asked questions in specific ways that helped students understand the content better, successfully answer questions, and teach one another. During classroom observations, there are four different ways that she asked questions and added support to those questions that helped students learn and successfully answer questions. Through analyzing the field notes and the questions Ms. A asked, these four supports emerged from the qualitative data that was collected, and they help explain how Ms. A helped her students successfully answer her questions.

***Students' Home Languages***

One way Ms. A helped students, primarily her two Level 1 students, successfully answer questions was by utilizing their first languages when possible. Both Level 1 students in the class spoke Spanish as their first language and were in their first year of school in the United States. While she was not a fluent Spanish speaker, Ms. A utilized her limited knowledge of Spanish, translation apps, and the knowledge of other bilingual students in the classroom to translate key words in her questions. For example, in a

discussion about Amelia Earhart, Ms. A asked one of the Level 1 students a few questions about what he learned in his reading about Amelia Earhart. He appeared to understand her questions better when she translated the words *fly* and *world* into Spanish. In addition to improving understanding and comprehension of questions and content, utilizing students' home languages provides other important benefits in the classroom. It is one way to show students that their home language and culture is valued, and it encourages additive bilingualism as they learn an additional language which can lead to important cognitive benefits for the students as they continue to get older (Valian, 2015).

***Gestures***

Another way that Ms. A supported her students' learning was by supplementing her questions with gestures and actions. Some of the classroom observations occurred during a unit of study about flight and airplanes. Students learned vocabulary words such as *lift*, *drag*, *weight*, and *thrust*, and they were given the opportunity to apply what they learned to the flight paths of paper airplanes. When asking questions about the new vocabulary they were learning, Ms. A often used her hands and arms to act out the word or asked students to indicate their response to her questions using similar actions. Connecting new words to a physical action supported the acquisition of the new words for both ELLs and non-ELLs. In her survey responses, Ms. A indicated that throughout the school year she regularly focused on incorporating more actions and gestures as well as pictures and physical models in order to help her ELLs understand topics more effectively. She noted that this was especially helpful for her students who were in the beginning stages of learning English.

***Follow Up Questions***

A third way Ms. A used her questions to help students learn was by asking follow up questions that guided students' responses. For example, if a particular student or the class struggled to respond to a question, instead of telling the class the correct answer or her own opinion, Ms. A would often ask a follow up question. Students learn more when they are the ones doing and talking rather than passively observing and listening. In a text about teaching ELLs in the mainstream classroom, Gibbons (2015) reminded teachers that giving students more than one opportunity to use academic language to answer a question can support language acquisition. When a student in Ms. A's class answered a question, she often asked a series of follow up questions in order to help the student give a response with more detail or more succinct language. One example of this follows:

T: Who can describe *imagery* for me?

T: What are those words doing for us?

T: What does that mean?

After answering all three of these questions, the responding student gave a response with more specific academic vocabulary, more detail, and a clearer explanation of what imagery is.

Some of these follow up questions were also scaffolded with either a sentence starter or a key vocabulary word that helped to lead the student to successfully answer the question. Some of these questions contained sentence starters. Some examples include:

T: What does drag do? It slows the…

T: And what happened with the apple? It hit him…

Supplementing a follow up question with a sentence starter appeared to help ELLs answer questions that they were unable to answer before the support was provided. Ms. A also used key vocabulary when asking follow up questions. This made it easier for students, especially ELLs, to utilize content vocabulary in their response. Some examples include:

T: So why were you trying to find the difference?

T: What is the force you are talking about?

Both sentence starters and vocabulary support are common, simple ways for mainstream teachers to support academic language development in their classrooms (McNeil, 2011), so incorporating these two types of scaffolding into classroom questions may have helped students answer questions more successfully. If students are using language to answer questions correctly, they are more likely to learn the language and content than if they are simply listening to their teacher tell them about it.

***Repetition***

In addition to using gestures and asking follow up questions, Ms. A also supported student learning by asking strings of repetitive questions. In one example, asking several similar questions in a row increased the engagement of ELLs in the lesson. Throughout the classroom observations, 28% of the teacher's questions were answered in a choral response where most of the class gave the answer in unison. For example, Ms. A asked the following series of questions, each of which were answered in a choral response.

T: A, is that a word?

T: Paint, is that a word?

T: Peanut, is that a word?

T: Pajamas, is that a word?

When these questions were asked, none of the five ELLs in the class participated in the choral response to the first question; however, by the final question, three of the five ELLs were engaged and responding to the teacher's prompts. Therefore, repetition may lead to increased participation among ELLs. This repetition also may provide ELLs with more time to process the question and their response, something ELLs need in order to both understand and produce information in a new language (Zohrabi et al., 2014). Ms. A was using numerous strategies to help all of her students learn to the best of their abilities, and these strategies can be used to make suggestions about ways other teachers can more effectively teach their students.

**Summary**

There are numerous ways that teachers use classroom questions to help their students learn. The types of questions teachers ask, the ways students are asked to respond, the levels of student engagement, and the support that teachers provide all play an important role in how well students learn. Understanding how teachers ask questions and how students respond can help inform future instructional practices. This chapter discussed the results of the study, utilizing information from classroom observations, field notes, and a teacher survey in order to answer the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* Chapter Five will discuss final conclusions and reflections from the capstone, including personal reflections, connections to the literature review, implications for educators, a discussion about the limitations of the study, and suggestions for continued learning and research.

# CHAPTER FIVE

## Conclusion

### Introduction

As a teacher, I spend countless hours each school year thinking about ways to effectively teach and support the group of ELLs that make up my caseload. When these students learn and improve I celebrate with them, and when they struggle I often feel their struggles alongside them. My dedication to teaching this particular group of students led me to the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* Through a detailed review of the literature related to classroom questions and ELLs, a study of a fourth grade classroom, and an analysis of the data collected through the study, I worked to understand more about how to use classroom questions in the mainstream classroom to help ELLs learn and grow academically.

Chapter Five will provide some conclusions to this capstone. It will discuss my own personal learning and growth through the research and writing process. It will review the ways the information collected during the study connects back to the literature discussed in Chapter Two. Using what was learned throughout the study, there will be a discussion about the implications this work may have for other educators. This chapter will also discuss the limitations of the study and explain future research related to the research question. Finally it will provide a summary of Chapter Five.

### Personal Learning

The capstone process was filled with personal and professional growth for me as an educator, writer, and researcher. As an educator, I reflected on and learned more about the experiences of ELLs in mainstream classrooms. I also learned several things I can

apply to my own teaching in order to ask better questions and foster deeper understanding and learning for my students. Finally, I learned several important lessons about the process of conducting action research in the classroom and writing an interpretation of the results. Overall, the capstone process was not a quick or simple process, but many valuable lessons emerged from the challenge.

As an ELD teacher, I have spent much of my career teaching small, pull-out groups of ELLs. During this small group time, I have the opportunity to give students individualized attention and instruction that corresponds to their unique level of English language proficiency. In this type of instruction, I see tremendous levels of engagement, participation, critical thinking, and student leadership. Students share their thoughts and ideas, lead discussions, ask interesting questions, and carefully think about their learning. Unfortunately, when I follow these students into their mainstream classes, I often see their confidence and engagement sharply decline. When I began the capstone process, I assumed that through my observations I would see once again that we as teachers were not giving all students a challenging yet supportive learning environment where every student was able to thrive.

After completing and analyzing the classroom observations for this capstone, I was very encouraged by what I observed. Two of my main takeaways from the data I collected were that the ELLs were answering almost as many questions in front of their class as their non-ELL peers and the questions they were answering were both closed-ended and open-ended questions. Before conducting these observations, I hypothesized that ELLs would answer far fewer questions in front of their class than the other students in the class and that the questions they did answer would nearly all be

simple display questions. However, in terms of single student responses, my hypotheses were not correct, and the ELLs in the classroom I observed were engaged nearly as much as their non-ELL peers. This finding was especially positive and encouraging because it showed that the professional learning conducted during the school year that was designed to help mainstream teachers learn more about effectively teaching ELLs may have had a positive impact on the teachers who attended. Additionally, it gave me and my colleagues quantitative proof that given the correct learning conditions and linguistic supports, the ELLs in our classrooms can and will think about and respond to the questions we ask.

Part of the data I analyzed in this study focused on what kinds of questions the teacher was asking and which students were responding. Through that data I also discovered some ways that the teacher was successfully using linguistic scaffolding and support to help her students learn the content and academic language she was teaching and asking questions about. Now that I have pinpointed some ways one teacher is successfully using linguistic support, these same strategies can easily be shared with the other teachers on the grade level team who are teaching similar content. Overall, the lessons learned in this capstone have the potential to improve the teaching and learning for many teachers and students at the school where the study was conducted.

I also grew as an educator through this process. While conducting classroom observations and focusing on the teacher's questions, I spent a considerable amount of time reflecting on the questions I ask as a teacher and searching for ways to improve my own questioning practices. I spent more time analyzing whether or not I was asking higher-level questions that required students to think critically and use academic

language. I began to plan some of the questions I wanted to ask ahead of time as I was writing lesson plans, and I sought out more creative ways for students to respond to questions, such as working with partners, using actions, or using drawings or illustrations. This process helped me grow both in my knowledge about how to support mainstream teachers and as an ELD educator myself.

In addition to growing as an educator, I also grew as a writer and a researcher through this process. As a writer and a researcher, I discovered the challenges that come with action research in a classroom. Schedule changes, student absences, and unplanned interruptions ensure that action research in a classroom rarely unfolds exactly as planned, and teacher-researchers must be able to adjust as needed. Additionally, I learned a considerable amount about how to draw my own meaningful conclusions from the data I collected. Rather than relying on other experts, I learned to analyze the data I collected and present a unique analysis based on the data. I unexpectedly found this type of writing to be challenging and yet rewarding. Overall, this capstone felt less like a process and more like a journey filled with challenges that led to growth on many levels and that will hopefully lead to improved student growth and achievement in the future.

**Connections to the Literature**

Understanding the literature related to classroom questions was a critical piece of the capstone process, and after completing and interpreting the data from the study, it is helpful to revisit the literature review. There were several sections of the literature review that were the most important as I conducted the study and analyzed the results. The most important areas to revisit included information about the importance of all questions, the different types of questions teachers actually ask in their classrooms, and the information

about scaffolding and support for ELLs. Some of the information in these sections was similar to the data I collected while other information differed from my data.

First, several authors and researchers made it clear that while some questions call for more critical thinking or extended responses, all different types of questions are necessary in the classroom (Qashoa, 2013; Zohrabi et al., 2014). Throughout the classroom observations that were conducted as part of this study, I regularly noticed how Ms. A used different types of questions for different purposes and how all questions had the potential to help students learn, as long as a variety of questions are present. In the post-observation teacher survey, Ms. A wrote about how she intentionally uses questions that require different levels of Bloom's taxonomy and how she believes that all types of questions play an important role in student learning.

Additionally, it was beneficial to return to the literature and compare the results of studies in other classrooms with what I discovered through classroom observations. For example, the teacher I observed, Ms. A, asked about the same number of questions as other elementary teachers (Guthrie, 2003; Nash & Shiman 1974). Ms. A also asked similar percentages of both referential questions and open-ended questions as other teachers (David, 2007; Guthrie, 2003; Omari, 2018). Multiple studies discussed in Chapter Two discussed how ELLs typically respond to more closed-ended than open-ended questions (Hill & Miller, 2013, Meng et al., 2012; Zwiers, 2007). However, this is one area where my data differed from much of the literature. In Ms. A's classroom, at least when considering single student responses, ELLs responded to closed-ended questions and open-ended questions at similar rates.

Finally, it was helpful to consider connections between the data I collected and the information about scaffolding and support in Chapter Two. First, multiple sources discussed in Chapter Two mentioned the importance of wait time (Hill & Miller, 2013; McNeil, 2011); however, through my field notes and observations, I noticed very little additional wait-time as a support for ELLs. Another scaffold mentioned in Chapter Two was providing chunks of language to students to help them respond to questions requiring lengthy responses, something Ms. A also did to support her students. Connecting the data I collected back to the literature discussed in Chapter Two helped me analyze and interpret the data as well as better understand the limitations and implications of my study.

**Implication for Educators**

The goal of this capstone was to answer the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* While this is a very broad question with many facets, through observing and analyzing the questioning practices of Ms. A, several suggestions for effective teaching, especially teaching ELLs in the mainstream classroom emerged from the data. These suggestions include building an inclusive classroom community, utilizing a variety of questions, providing language support whenever possible, and providing follow-up questions and feedback to students. While there is not clear causation between these factors and effective teaching and learning, they did stand out in the study. These suggestions help explain how the results of this study can benefit both teachers and students.

### *Classroom Community*

According to several of the studies discussed in Chapter Two, ELLs tend to participate in the classroom at a lower rate than their non-ELLs peers (Guthrie, 2003; Zwiers, 2007), and one potential explanation of this is that ELLs may be more hesitant to speak up in front of a large group. In this study, ELLs did answer fewer questions than their non-ELL peers; however, the gap was very small. The ELLs in Ms. A's class appeared to feel comfortable attempting to answer questions in front of their peers, and one explanation for this may be the inclusive, safe classroom community Ms. A spent the school year creating. Therefore, one suggestion for increasing the rate at which ELLs answer questions in the classroom is to build a strong classroom community where students know they belong and where mistakes are seen as learning opportunities, not something to be embarrassed about. There are many different ways to build a supportive community like Ms. A had in her classroom, and it will vary from teacher to teacher based on their unique teaching style. Overall, students need to know that they are an important part of the classroom, that their unique story is valued, and that their teacher and peers want them to succeed.

### *Question Variety*

Another suggestion for engaging ELLs with classroom questions is to utilize both a variety of question types and a variety of ways for students to respond to those questions. While this capstone discussed many benefits of both open-ended and referential questions, not all teacher questions need to require these high levels of thinking. Students need to hear and answer all types of questions. However, this capstone did reveal that for many educators, it may be helpful to attempt to ask more open-ended

and referential questions than they currently do. One way to do this is to think about the various open-ended questions and referential questions that could be asked during a lesson. In addition to asking different kinds of questions, it may also be beneficial to incorporate partner conversations, choral responses, and actions as responses because it may lead to increased student engagement. It is crucial that teachers teach students the expectations for these types of responses so all students are engaged. For example, setting a precedent that both students need a chance to talk during partner discussions may lead to more students, especially ELLs who may be hesitant to speak or who may need more time to process the question and their answer, responding during partner or small group discussions.

***Language Support***

In addition to asking good questions, ELLs often need additional language support to successfully answer their teacher's questions. Through observing Ms. A's lessons, sentence starters and vocabulary support were two language supports that helped her students successfully answer questions. When asking questions to ELLs, especially open-ended questions, they may know the answer but struggle to explain it using English. Therefore, giving students a sentence starter or having key vocabulary available for them to see or hear may support them as they attempt to display their understanding or share their ideas.

***Feedback and Following Up***

Finally, it was clear in observing Ms. A that simply asking a question and listening to a student's response is not enough to maximize learning and understanding through classroom questions. Recasting, offering feedback, and asking guiding follow-up

questions are another way to support student learning. For example, after a student responds to an open-ended question, there are several helpful ways a teacher can respond. First, they can recast or restate the student's response so all students can hear the answer again, potentially with slightly more advanced academic vocabulary or syntax. Second, the teacher may provide feedback, explaining which parts of the answer were correct and which parts need to be revised. Finally, it can also be helpful to ask additional, follow-up questions that lead the student to more deeply understand the content. Overall, there are countless ways for teachers to effectively teach their students, and suggestions may vary based on the students and the context.

**Communicating Results**

The results of this study will be used by me as a teacher, and they will also be made public in order to support other educators. Personally, I will use the things I learned in this capstone to improve my own teaching and to support my colleagues who are not ELD teachers. This may occur in professional learning communities, staff professional development, book studies, or co-teaching and co-planning. In order to support other educators in the field of teaching ELLs, this capstone will also be made available through Hamline's Digital Commons, and publicly accessible online collection.

**Limitations**

As with all research studies, there were limitations to this capstone. In this capstone, the amount, type, and quality of data that was collected and analyzed were all limiting factors. First, this capstone had a very small sample size because this was a small-scale study of one teacher and one fourth grade classroom. Teachers across the country and across the world each have their own unique approach to teaching as well as

their own strengths and weaknesses, therefore, it can be challenging to make generalizations based on information from a single classroom. Similarly, the data was collected over five short sessions. A larger collection of data may have revealed slightly different results. Finally, due to the timing of this capstone, classroom observations were conducted in mid-late May, which is the conclusion of the school year. Often, this time of the school year is filled with end of the year testing, project-based learning, field trips, and other activities. Due to many interruptions in the regular schedule, classroom observations were not able to be conducted on a regular schedule. Considering the limitations of this small scale study, there are many more aspects of teacher questions that can and should be studied.

**Future Research**

Understanding ways to effectively teach ELLs in the mainstream classroom is critical for many teachers across the United States. Since this topic is so important, additional research related to the question *How do mainstream elementary teachers use questions in their instruction of ELLs?* would be beneficial for the field. Based on the findings from this capstone, it would be beneficial to examine teacher questions in different settings. In this capstone, all classroom data was collected during whole group instruction; however, additional unique findings may emerge when comparing whole group, small group, and individual instruction. This would be especially useful in the elementary setting where teachers often engage in all three types of teaching on a regular basis. Additionally, it would be beneficial to compare the questioning practices of multiple teachers in order to more clearly understand what type of questioning techniques are compared to student success and learning. Finally, it may also be beneficial to

conduct a similar study in a setting where the use of students' home languages is utilized in both the teachers' questions and the students' answers. Understanding the ways translanguaging connects to teacher questions and student responses may provide more insight about ways to best support multilingual students.

**Summary**

This study was based on the research question, *How do mainstream elementary teachers use questions in their instruction of ELLs?* Through my own personal reflections, an extensive review of the literature, a detailed study, and an analysis of the data I collected, I learned a great deal about classroom questions, student engagement, and linguistic support for ELLs. Additionally, I discovered multiple ways to improve my own teaching and support my colleagues who are mainstream classroom teachers. I am excited to see how the information in this capstone will be used to improve educational outcomes for students and inspire future learning and research related to classroom questions and ELLs. This entire capstone was built upon the belief that ELLs are an incredible, intelligent, and diverse group of students who have unlimited potential and add great value to classrooms all across the country. A belief in the potential of ELLs combined with the knowledge and understanding about how to best support them will help create classrooms where all students of all linguistic backgrounds can learn to their fullest potential.

## REFERENCES

Brock, C. A. (1985). The effects of referential questions on ESL classroom discourse. *TESOL Quarterly*, *20*(1), 47-59.

Collier, V. P. (1995). Acquiring a second language for school. *Directions in Language and Education*, *1*(4), 1-11.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Sage.

David, O. F. (2007). Teacher's questioning behaviour and ESL classroom interaction pattern. *Humanity & Social Sciences Journal*, *2*(2), 127-131.

De Jong, E. J., Harper, C. A., & Coady, M. R. (2013). Enhanced knowledge and skills for elementary mainstream teachers of English language learners. *Theory into Practice*, *52*(2), 89-97.

Eliasson, N., Karlsson, K. G., & Sørensen, H. (2017). The role of questions in the science classroom–how girls and boys respond to teachers' questions. *International Journal of Science Education*, *39*(4), 433-452.

Gass, S.M. & Varonis, E.M. (1994). Input, interaction, and second language production. *Studies in Second Language Acquisition, 16*(3)*,* 283-302.

Gibbons, P. (2003). Mediating language learning: Teacher interactions with ESL students in a content-based classroom. *TESOL Quarterly*, *37*(2), 247–273.

Gibbons, P. (2015). *Scaffolding language scaffolding learning*: *Teaching English learners in the mainstream classroom* (2nd ed.). Heinemann.

Guthrie, J. W. (2003). Classroom questions. In *Encyclopedia of education* (2nd ed., pp. 310-313). Macmillan Reference USA.

Hill, J. D., & Flynn, K. (2008). Asking the right questions. *The Learning Professional*, *29*(1), 46.

Hill, J. D., & Miller, K. B. (2013). *Classroom instruction that works with English language learners* (2nd ed.). McREL.

Krashen, S. (1982). *Principles and practice in second language acquisition.* Pergamon.

Lee, Y. A. (2006). Respecifying display questions: Interactional resources for language teaching. *Tesol Quarterly*, *40*(4), 691-713.

Lee, Y., & Kinzie, M. B. (2012). Teacher question and student response with regard to cognition and language use. *Instructional Science*, *40*(6), 857–874.

Li, P., & Jeong, H. (2020). The social brain of language: grounding second language learning in social interaction. *npj Science of Learning*, *5*(1), 1-9.

Lightbown, P.M., & Spada, N. (2006). *How languages are learned*. Oxford University Press.

Long, M.H. (1983). Native speaker/non-native speaker conversation and the negotiation of comprehensible input. *Applied Linguistics, 4*(2), 126-141.

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

Long, M.H., & Sato, C. (1983). Classroom foreigner talk discourse: Forms and functions of teachers' questions. In H. Seliger & M. Long (Eds.), *Classroom oriented research in second language acquisition* (pp. 268 – 285). Newbury House.

Marzano, R.J., Pickering, D., & Pollock, J.E. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement.* Association for

Supervision and Curriculum Development.

McNeil, L. (2012). Using talk to scaffold referential questions for English language learners. *Teaching and Teacher Education, 28*(3), 396-404.

Meng, J., Zhao, T., & Chattouphonexay, A. (2012). Teacher questions in a content-based classroom for EFL young learners. *Theory and Practice in Language Studies*, *2*(12), 2603-2610.

Mills, G. E. (2010). *Action research: A guide for the teacher researcher* (4th ed.). Pearson.

Minnesota Department of Education. (2021a). *English learner education in Minnesota 2020-2021 report.* https://education.mn.gov/mde/dse/el/

Minnesota Department of Education. (2021b). *Minnesota report card.* https://rc.education.mn.gov/

Nash, R. J., & Shiman, D. A. (1974). The English teacher as questioner. *English Journal, 63*(9), 38-44.

Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge University Press.

Omari, H. A. (2018). Analysis of the types of classroom questions which Jordanian English language teachers ask. *Modern Applied Science*, *12*(4), 1-12.

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

Pica, T., Young, R., & Doughty, C. (1987). The impact of interaction on comprehension. *TESOL Quarterly*, *21*(4), 737–758.

Qashoa, S.H. (2013). Effects of teacher question types and syntactic structures on EFL classroom interaction. *The International Journal of Social Sciences*, *7*(1), 52-62.

Ritchhart, R. (2009). A typology of classroom questions. *Journal of Developmental Education, 30*(2), 34–35.

Rymes, B. (2010). Classroom discourse analysis: A focus on communicative repertoires. In N.H. Hornberger & S.L. McKay (Eds.), *Sociolinguistics and Language Education* (1st ed.) (pp. 528-546). Multilingual Matters.

Sato, C.J. (1988). Origins of complex syntax in interlanguage development. *Studies in Second Language Acquisition*, *10*(3), 371-395.

Shafeei, K.N., Hassan, H., Ismail, F., & Aziz, A.A. (2017). Incorporating higher order thinking skill (HOTS) questions in ESL classroom contexts. *LSP International Journal*, *4*(1).

Stairs-Davenport, A. (2021). "Where do I start?" Inquiry into K-12 mainstream teachers' knowledge about differentiating instruction for ELLs in one US school district. *Education Inquiry*, *12*(1), 1-15.

Swain, M. (1993). The output hypothesis: Just speaking and writing aren't enough. *Canadian Modern Language Review*, *50*(1), 158-164.

Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 495-508). Routledge.

Valdes, G., Kibler, A., & Walqui, A. (2014). *Changes in the expertise of ESL professionals: Knowledge and actions in an era of new standards.* TESOL International Association.

Valian, V. (2015). Bilingualism and cognition. *Bilingualism: Language and Cognition*, *18*(1), 3-24.

Vygotsky, L. S. (1978). *Mind in society.* Harvard University Press.

White, J., & Lightbown, P. M. (1984). Asking and answering in ESL classes. *Canadian Modern Language Review*, *40*(2), 228-243.

Wright, B. M. (2016). Display and referential questions: Effects on student responses. *Nordic Journal of English Studies*, *15*(4), 160-189.

Yang, H. (2006). A report of an ESL classroom observation in two language schools in Auckland. *TESL Canada Journal*, *23*(2), 1-11.

Zohrabi, M., Yaghoubi-Notash, M., & Khiabani, S. Y. (2014). Teachers' use of display vs. referential questions. *International Journal of Applied Linguistics and English Literature*, *3*(2), 96-100.

Zwiers, J. (2007). Teacher practices and perspectives for developing academic language. *International Journal of Applied Linguistics*, *17*(1), 93-116.

Appendix A

# Question Observation Form

| Date: | Time: | Subject/Topic: |
|---|---|---|
| Number of Students Present: | Number and Levels of ELLs Present: | |

| Time Stamp | Question Asked | Type<br>● Closed-ended display<br>● Closed-ended referential<br>● Open-ended display<br>● Open-ended referential<br>● Functional | Type of response given/required<br>● Single student<br>● Partner Discussion<br>● Choral Response<br>● Action<br>● Other | Student(s) who responded | Length of student response | Notes |
|---|---|---|---|---|---|---|
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Appendix B

# Post-Observation Teacher Reflection Survey

Date:

1. How many questions do you think you ask your students in a typical 20 minute whole group lesson?

2. What percentage of those questions do you think require critical thinking?

3. What percentage of those questions do you think require verbal responses of more than one or two words?

4. What differences, if any, do you see between the way ELLs and non-ELLs engage with your questions?

5. Do you plan any of your questions ahead of time? If so, how does that impact your teaching?

6. Are there any ways you want to change your questioning practices?