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Impact of Student-Led Discussions on Student Engagement and Involvement

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IMPACT OF STUDENT-LED DISCUSSIONS ON STUDENT ENGAGEMENT AND INVOLVEMENT

by

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DEDICATION

To my incredible family, thank you for supporting me in all that I have done. You have always encouraged me and supported me during this process. I would never have been able to get through this without you. You have taught me the importance of hard work and never giving up.

To my friends, thank you for listening when I needed to vent or offer a shoulder to cry on. I could never have gone through this without your reassurance that everything is going to be alright. You have inspired me, and your endless support means the world to me!

ABSTRACT

The purpose of this action research was to investigate the relationship between student engagement and student-led discussions for middle school students, focusing specifically on seventh graders. There was increased student engagement for the students that participated in the discussions. The study was based on both cognitive and social constructivism, where students are developing their critical thinking as well as socializing with their peers. This research explored three questions related to the impact of student-led discussions. The first question looked at how discussions impacted student engagement and involvement. The second question centered on students' willingness to voice their ideas. Finally, the last question addressed the academic impact of the discussions. During this six-week intervention, the lessons were scaffolded to allow the students more independence in their learning. The discussions started as whole group and then at Week 3, the students were put into small groups of four.

Using both quantitative and qualitative data showed significant growth in students' engagement in the discussions. The students asked clarifying questions and learned how to keep a conversation flowing. There was not as strong of a connection with the students' willingness to voice their opinions. However, there was an increase in academics due to the student-led discussions. These types of discussions allowed students

to be in control of their own learning and to collaborate with their peers. They were able

to reflect on their actions as well as their peers to determine their strengthens and

struggles. Student-led discussions provided students with a more interactive experience in

the classroom.

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CHAPTER 1: INTRODUCTION

I create an interactive and engaging writing lesson for my middle school students. At the beginning of the lesson, students are interacting with the Smartboard, answering evidence-based questions, and reviewing the expectations for the upcoming writing assignment. My student-engaged classroom allows the students to actively participate with one another. I conclude the lesson with an inquiry: "What questions do you have before you begin working on the assignment?" This question is designed for self-confirmation for me as an educator to ensure my students were successful in mastering the learning targets for the day. As I start every school year, I discuss this question in-depth with the students, emphasizing the value of asking for assistance. I often notice similar reactions each time I ask. As I reflective practitioner, I wonder, "Did the students understand the information taught within the lesson?" "If they did, why do they struggle to apply this learning when they take the assessment?"

The most common response to my initial question is silence. No one in the classroom raises their hand, and everyone is either staring at the Smartboard or the graphic organizer lying in front of them. There is no one talking in the class--just blank stares. I ask the class a second and final time, "Last chance. What questions do you have before work-time?" Once more, no student raises their hand to ask a question about the topic or assignment. I say, "Alright, since there are no questions, you can begin working

on the homework assignment." Approximately two minutes into worktime, I glance around the classroom and notice multiple hands in the air waiting to ask me a question. There are also students talking with one another: some are talking about the assignment; others are talking about non-school related topics. I wonder to myself, "What could I have done differently in my lesson to help the students be more independent when completing the homework assignment?"

Would a different approach to teaching the lesson have been more beneficial? Instead of asking the students to pose questions to the entire class, what if they were questioning and collaborating with just a few individuals in small groups? This would provide them with a more intimate environment in which they would have the opportunity to ask questions without the fear of humiliation. Would the same students who are not participating in whole class discussions be more willing to discuss in a small group setting? Would the students be more willing to engage with one another? Taking an active role in class discussion is a frequent difficulty for many students.

An educator can create engaging and interactive lessons that the students enjoy and actively participate in; but if the students are not learning the intended learning standard, is it beneficial and effective? Before the students leave the classroom, I often have them complete an exit ticket. This allows me to evaluate their learning and whether they are on track to master the intended target. This type of formative assessment, which measures student's progress during learning (Green & Johnson, 2010), identifies the students who are struggling with the standard. However, correcting an exit ticket every day for 110 students is not realistic. Group work and observation would be a more practical form of formative assessment that would enable me to interact with the students

more frequently. Being able to listen to conversations about a topic provides me with the opportunity to correct any misunderstandings or expand on an opinion or idea.

When students are making inquiries and actively taking part in discussions, they are advocating for their own learning. But if they are too nervous to collaborate, I will not confidently know if the students have mastered the learning standard until after correcting the summative assessment, measure the student's understanding at the end of a unit (Green & Johnson, 2010). How do I create an environment where students are activists for their own learning and where they feel comfortable asking the questions or sharing their thinking in front of their peers? Students should have a voice in their own learning. Can student-led discussions and groupwork allow students to expand their knowledge and, as a result, create an environment where students are more willing to ask clarifying questions? The following research focuses on student engagement and active participation, and their direct connection to student learning.

Problem of Practice

Two struggles that occur in my classroom are students' unwillingness to participate in a discussion, and the reluctance to ask a question. Passive learning is a traditional style of learning. Vanhorn et al. (2019) describe passive learning as "transmitting knowledge from the instructor to the student" (p. 8). There are no discussions or collaboration in this type of learning; the students are just sitting and listening. A student in this model can be described as someone simply memorizing the information (Lambert, 2104). The students are not thinking independently because their information is just handed to them directly (Lambert, 2014; Riley & Ward, 2017; Vanhorn et al., 2019). The information is simply being passed on verbally and only one

version of it is being told: the teacher's (Lambert, 2014). The students are writing what they are being told and are part of a lecture by acting as recipients of the facts (Riley & Ward, 2017). As a result, students are not retaining the information for long periods of time (Vanhorn et al, 2019). Passive learning is problematic due to students simply listening to the lecture and not inquiring.

Students often struggle with getting started on tasks in the classroom. Sometimes they do not even know where to begin, and as a result, they do not know what questions to ask. They would not attend meetings or social functions, because they were confused or afraid of making a mistake (Rothstein & Santana, 2018). If parents are not asking questions and modeling this skill for their own children, then the child is more apt to refrain from asking questions as well. I have noticed sometimes Black and Marshallese parents do not ask questions about their child's learning. In addition, many times they do not participate in parent-teacher conferences, where they have the opportunity to discuss more about their child's learning. Even if the students are beginning to ask questions, not asking the right type of question can also have a negative impact.

Even when students are asking questions and taking part in discussion, there may still be a negative impact that occurs with their learning. If their questions are not thought-provoking or formed using critical thinking skills, the students are just learning the basics and not challenging themselves intellectually (Miles, 2013; Mueller, 2018). Through good questioning, the students and teacher learn from each other and gain a new understanding (Miles, 2013; Mueller, 2018). Encouraging students to ask challenging and stimulating questions can benefit them and help further the discussion.

There are many forms of classroom discussions. The two most common types of discussions are student-led and teacher-led. Student-led discussions focus on the students and their learning (Hulan, 2010). Students lead the discussion using their own thoughts and ideas. The teacher observes and has minimal interaction with the students (Asrita, & Nurhilza, 2018). Teacher-led discussions focus on the teacher. In these discussions, the student is more dependent on the teacher, because they are only a small part of the discussion, and the students check their own understanding independently as the discussion continues (Hulan, 2010). Students do not have to think as deeply if the teacher is leading the discussion and asking the questions (Asrita, & Nurhilza, 2018). The three components of this type of discussion are "teacher initiation, student response, and teacher evaluation" (Gambrell, 2004, p. 212). The teacher is a major piece of the discussion: they are beginning the discussion with open-ended questions and assessing the students based on the level of their participation. Both teacher-led and student-led discussions are beneficial to the students' learning, because they involve collaborating with others and sharing ideas and opinions.

The type of discussion can also influence the student's academics. Teacher-led discussion can overtake the learning, and prevent student engagement and collaboration (Hulan, 2010; William, 1962). The disadvantages of this type of discussion "could lead to less experimentation and less thoughtful discussion on the part of the student and more reliance on the teacher" (Hulan, 2010, p. 46). The student cannot express their own thoughts and opinions. They also may think their answer is incorrect or feel inferior (Hosseinpour & Koosha, 2016). If no student is willing to answer a question in the teacher-led discussion, the teacher ends up either waiting or answering the question

themselves, which does not demonstrate student understanding (William, 1962). These discussions cause a problem when the students are not willing to share their own thoughts, and collaboration amongst peers is limited and too structured. When a peer is willing to take on a leadership role in a discussion, it creates a more encouraging and comfortable environment.

Student leadership builds a culture within the classroom in which students feel empowered to help each other. Student leadership is defined as peers "working collectively to achieve a common goal" (Dunn, 2019, p. 96) while "providing direction and exercising influence" (Leithwood et al, 2012, p. 4). The students are communicating with each other (Odom, et al., 2013). If there is no student leader, the student's discussion topic could change, and the students may begin discussing a completely different subject (Murphy & Reichard, 2011). Leaders inspire and persuade peers while creating an encouraging environment (Leithwood et al, 2012, Murphy & Reichard, 2011). Females are often left with the task of taking control of the conversation and ensuring that the other participants are staying on task (Legewie & DiPrete, 2012). Creating an accepting environment within the classroom allows all students to feel comfortable to share; however, there are situations where the teacher is the one leading and directing the discussion.

As an educator, standing in front of a classroom full of middle school students, I feel responsible for each and every one of them and their academic success in my class. I want to do everything I can to help them academically achieve, but I am not a mind reader. If they are not voicing their concerns, I do not know if they do not understand the assignment or topic until the summative assessment reveals they have not mastered a

certain learning target. As part of my educational philosophy, I want to help all students succeed in and out of the classroom. The first step is to empower each of my students to advocate for their own learning.

Theoretical Framework

Constructivism is the central theory in this study. Cognitive constructivism emphasizes the mental and critical thinking involved in the learning process: how do students develop intellectually and then apply that to the concept they are learning in class (Martin & Sugarman, 1997). Piaget (1932), Bruner (1960), and Dewey (2009) are major contributors in this theoretical framework. They researched children's development and their level of thinking at various stages of life (Piaget, 1932; Bruner, 1960). In addition to cognitive constructivism, social constructivism also focuses on student development with more of a concentration on social and collaboration with peers (Dewey, 2009). Children pick up concepts differently if they are alone rather than surrounded by peers (Kukla, 2000). Cognitive and social constructivism has been influencing classrooms for many years on how to best reach students and enable them to be successful, both academically and socially.

Students collaborating with each other and expanding upon each other's ideas and opinions can have academic advantages. Student engagement is a component of academic growth (Dykstra-Steinbrenner & Watson, 2015). Wang et al. (2014) define this type of engagement as "a student's active involvement in classroom learning activities" (p. 517). The teacher is not standing in front of the classroom lecturing while the students are sitting quietly listening instead, they are actively learning. Active learning, where the students are fully involved in the discussion, is one benefit of class discussions (Riley &

Ward, 2017). Students can be the center of the discussion, interactively sharing their viewpoints, and adjusting those viewpoints based on what others are sharing (Roehling et al., 2010; Wolfe, 2003). With explicit expectations, the students can collaborate with others and actively engage with the topic (Hamann et al., 2012; Wolfe, 2003). Being able to build on peers' viewpoints during student-led discussions indicates that students are developing deeper thinking skills.

Discussions improve critical thinking skills, problem solving skills, and higher-level thinking skills. Students must be able to comprehend what their peers say, and then be able to build off those comments (Hamann et al., 2010; Wolfe, 2003). Being able to socialize in class motivates students to complete assignments. Students want to be able to talk with their peers, and discussions can help students persuade each other (Wolfe, 2003). They need to be moving out of the Concrete Operational Stage and into the Formal Operational Stage. The Concrete Operational Stage is when students are beginning to think more logically about topics and their structure (Bruner, 1960; De Lemos et al., 1985). In the Formal Operational Stage, students use complex skills to lead discussions with their peers and build off one another (De Lemos et al., 1985). This helps students think about ideas and topics from a different perspective and assists in boosting their social skills.

Students benefit from asking questions during classroom discourse. The questions can intellectually challenge the students, and result in them asking more thought-provoking questions (Groenke & Paulus, 2007; Whitver & Lo, 2017). This allows the students to reach a new potential that the lecturing format would not be capable of, which can then lead to students having more control of their own learning (Dass et al., 2014;

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Whitver & Lo, 2017). During class discourse, the students strengthen their communication, oral, and debate skills (Dass et al., 2014; Groenke & Paulus, 2007). Student-led discussions and collaboration with peers encourage students to go beyond their normal thinking patterns and reflect about the topic in a variety of new ways.

When speaking with one another, students are developing skills that help them learn even more complex and deeper thinking of the concept. Vygotsky (1978) discusses how students can only learn so much on their own. They can learn a concept or a meaning, but "they have only just begun at that moment" (Vygotsky, 1978, p. 90). The student needs to be able to apply and dig deeper into the idea. "Through asking questions and giving answers, children acquire a variety of information…Learning and development are irrelated from the child's very first day of life" (Vygotsky, 1978, p. 84). Student-led discussions give the students the opportunity to pose inquiries and listen to their peers' opinions on the topic. Students can only learn so much on their own, but by questioning and collaborating with peers, they are able to expand their learning and further develop their cognitive skills.

Research Questions

The primary focus of this study was to determine the effects of student-led discussions on student engagement. For this study, student engagement is defined as talking to peers, asking questions, and building off of peers' viewpoints/ideas during a discussion (Dykstra-Steinbrenner & Watson, 2015; Wang et al, 2014). It centers around developing classroom structures that support students and encourage them to share their opinions, ask questions, and engage in thoughtful discourse.

The research questions for this study were:

- How does active participation in student-led discussion impact students' engagement as measured by their talking, asking questions, and commenting on peers' ideas?

- How does active participation in student-led discussion impact student willingness to voice questions?

- What is the impact of student-led discussions on academic achievement as measured by student reading scores?

Research Positionality

I was the primary teacher-researcher conducting the action research in this study. My teaching experience is in both elementary and middle school settings. I taught at both parochial and public schools. Of my eight years of instructing experience, seven were in an English Language Arts middle school classroom. The students in my study were from my English Language Arts seventh grade class in a public middle school. Due to COVID 19, they spent the first two trimesters of the school year attending in person class 50% of the time, while the other time was spent learning virtually at home. As I began this study, students were back in the classroom full-time for three full weeks.

I was an insider to this research. This means that I conducted the research within my own classroom with the students I had been teaching (Herr & Anderson, 2015). The research focused on the students that were in my classroom, and I worked personally with each one of them. Being in the position of the participants' primary English Language

Arts teacher may have affected the process because I worked closely with each student and became familiar with their interests and behaviors.

From my previous education and experience, my bias focuses on instruction and my students. For my Marshallese students, many of them English is a second language. Due to my personal experience, I notice they struggle with vocabulary and reading comprehension. Because of this bias, I tend to explain the topic in more detail or use different terminology at first to ensure that they understand the concept. In addition, I check in on them more frequently during independent worktime. For my black students, they are not accurately represented in the Honor's courses at school. In a class of approximately 30 students, there is only one or two Black students. Due to this bias of few individuals in higher level courses, I assume they are not as critical thinkers as other students. There is bias that occurs regarding academics and their placement in the classroom. All the students were analyzed separately within each instrument and then compared to the group as a whole. Acknowledging these biases allowed me to analyze my data with a neutral mindset.

One of my educational philosophies is all students can be successful in school: academically, socially, and emotionally. Every student's level of success is different; for some students, what seems a small accomplishment to one may be a major success to another. I create lessons and activities that help support this belief. I grew up in a school that was very teacher-based. There were many lectures and very few group discussions. If I did have the choice of working in a group, I always chose to work independently, because I was nervous to collaborate with my peers. I wanted to be in control, not someone else. As an educator, I am motivated by my students and their success. I watch

them come into seventh grade as quiet and shy and then leave as eighth grader ready to take on new challenges in high school. I enjoy watching them grow into young adults. My bias is that I have already built a student-teacher relationship with the students in my study. I have been teaching them for the last seven months and know them very well. Another bias is my constructivist philosophy. Having this educational philosophy may transfer to the students and alter their way of thinking. As an inside researcher, I conducted my action research with a personal investment to become a more effective English Language Arts middle school teacher.

Research Design

Action research is a major component of this study. Each student retains information differently, and classes may require varying strategies when teaching a new topic. Action research assists in the challenges that occur when students are mastering the Common Core Standards. It aids the educator when solving classroom problems and overcoming obstacles. Identifying the challenges and researching different strategies helps the educator become more effective and reflective, and the students in turn become more knowledgeable on the topic and build strategies that help them to become successful.

Action research focuses on strengthening a teacher's reflective practice. Efron and Ravid (2013) discussed how this reinforces a deeper understanding of the students and how to best assist the students in their learning. Each year, the group of students learn a little differently, and as an effective educator, I continually implement strategies to support student success. This research ensures educators are overcoming classroom obstacles and enhancing their teaching strategies for academic success for all students

(Herr & Anderson, 2015). Improving practice should be a priority for every teacher. Reflecting daily on the class lessons benefit the students as well as the educators.

This research concentrated on classroom practices and improving teaching for the betterment of the students. Koomen (2016) conducted a study that focused on undergraduates who videotaped a lesson they taught. The participants learned the importance of not only coursework at the university, but also the value of reflecting on a lesson and how beneficial that practice can be to the students. It is not a series of steps the educator needs to follow; it is about the educator's dedication to the profession and creating effective lessons (Wyatt & Speedy, 2014). Asking questions about teaching practices and then answering them through research helps not only the educator but also the students.

This research requires reflective procedures that help educators grow professionally in their field. They create educators who are "active partners in leading school improvement" (Efron & Ravid, 2013, p.10). Creating safe, student-centered, welcoming environments where students want to learn and become active and successful community members is a goal for many schools. To achieve that goal, educators need to continually evaluate their teaching and make improvements to meet the needs of all their students. Action research helps accomplish that objective.

This action research study utilized mixed-methods research. This was appropriate for my research because I wanted to ensure I had enough data collected for accurate results. Mixed-methods research incorporates both qualitative and quantitative data collection. This method allowed data from multiple sources in case "one method may offset the weaknesses of the other" (Creswell & Plano Clark, 2018, p. 18). Mixed-

methods also permits the research to be transferable. Tracey (2010) defined

transferability as "when readers feel as though the story of the research overlaps with

their own situation, and they intuitively transfer the research to their own action" (p.

845). I wanted to use assessment data, short response exit tickets, observation logs, and

interviews. The assessments connected with how the students were performing

academically in reading and writing. The exit tickets and interviews were used to collect

data on students' feelings surrounding talking in discussion and anxiety in the classroom.

I recorded observations from the classroom discussion on logs. The setting of the study

took place in a public middle school. The participants vary in race, religion, gender, and

social class. The participants were all in seventh grade English Language Arts.

Table 1.1 breaks down the demographics of this middle school. There are 644

students that attend (Greatschools.org).

Table 1.1. Demographics of Central Middle School

Demographic	Percentage of Student Body
White	68
Black	15
Hispanic	6
Two or more races	5
Native Hawaiian or other Pacific Islander	3
Asian or Pacific Islander	1
Unspecified	2
Students from Low Income Families	54
Female	51
Male	49

My intervention for the study involved choosing twelve 7th graders from my general education classroom. The typical class period is 50 minutes, and I see the students every day. During the 20-minute intervention, the students reviewed the definition of discussions and what components were essential during those discussions. They discussed why they were choosing not to take part in class discussion, and then built their confidence in the subject by having small group discussions during the intervention time. This intervention lasted six weeks, meeting four days per week for twenty minutes per session.

Significance of the Study

This study holds significance in the educational field because, as educators, we strive for what is best for our students. We want the students to be successful both in and out of school. When the students arrive to seventh grade, many of them have thoughts about having a job to earn spending money. When they get into the workforce, they need to be able to ask questions if they are struggling to complete a task. They need to be able to advocate for themselves and have the courage to voice an inquiry, and not continue working and ignore the task when what they are completing is incorrect. In certain occupations, the individual needs to be equipped with the social skills to interact with customers and colleagues. They need to have the ability to hold a conversation and respectfully voice their thoughts and opinions. Research focused on student-led discussions and how it connects with students and their lives outside of school. This connects with my study, because student-led discussions have students talking about a topic and following expectations focused on respect.

Definition of Terms

- Active participation- students talking with one another and engaged in the conversation/topic

- Classroom environment- "indoor and outdoor spaces used by children to learn and teachers to teach" (Anderson, 2010, p. viii)

- Cognitive constructivism- mental and critical thinking involved in the learning process: how do students develop intellectually and then apply that to the concept they are learning in class (Martin & Sugarman, 1997)

- Marshallese students- students from the Marshall Islands; many of them were forced to come to the United States after the U.S. dropped nuclear bombs on their homes (Heine, 2004; Schwartz, 2015)

- Student engagement- "a student's active involvement in classroom learning activities" (Wang et al., 2014, p. 517)

- Student-led discussions- when the students are talking about a certain topic amongst themselves; they can share their thoughts and opinions (Boyd et al., 2011; O'Donnell & King, 1999; Wagner et al., 2017)

- Zone of proximal development- students can only learn so much on their own and then they need guidance and assistance from others (Vygotsky, 2017)

Organization of Dissertation

This study is organized into six different chapters. This chapter introduces the topic of the study. Chapter 2 summarizes the literature review and how it connects with this action research dissertation. Chapter 3 explains the methodology of the intervention. In chapter 4, the data that was collected during the intervention will be described. Chapter 5 will conclude the dissertation with a summary of the results as well as an analysis of the data collection. The study will conclude with a section dedicated to future research recommendations.

CHAPTER 2: LITERATURE REVIEW

School is a place where students can discover their love of learning and investigate new topics. Students should have the opportunity to collaborate with one another and share their inquiries. The problem of practice I investigated was the disadvantages of a silent classroom. Students do not ask questions about their learning, and when they do not understand a topic, they just sit in their seat and either shut down and refuse to complete the work, or pretend they know what they are doing and complete the assignment incorrectly. How can I get students more excited about the topic? Instead of just teacher-led lectures, students need to be more involved in their education and take control of what they are learning.

Problem of Practice

As an educator, my goal is to help students be successful both socially and academically. Students should be socializing, sharing their ideas and thoughts, and asking questions during the class period. They should be able to build off each other's viewpoints and be a part of a thought-provoking conversation (Hamann et al., 2010; Wolfe, 2003). Students may have a variety of reasons for not sharing their ideas or asking questions in front of the whole classroom, but a small group setting can help eliminate some of those feelings and anxieties. Academics can suffer if the students are silent and not taking part in classroom discussions (Ryan et al., 1998). As a result, students do not understand the lesson or the topic that is being taught (Groenke & Paulus, 2007; Keisu &

Ahlström, 2020; Wenham, 2019). They do not want to share their opinions aloud in front of a whole classroom of peers (Ballinger & Sato, 2016; Wenham, 2019).

Motivation can be contagious for the students: when they see one person excited about the topic, they themselves get excited as well (Altinay, 2017; Bryan et al., 2003). Some children struggle with communication skills and vocalizing their ideas (Dass et al., 2014; Storch, 2001). They may not have fully developed their speaking abilities and need additional think time before answering (Ballinger & Sato, 2016; Castek et al., 2012; Groenke & Paulus, 2007; Koechlin & Zwaan, 2014). The teacher creates the classroom atmosphere; it can be a welcoming, safe place or a negative, biased one (Ballinger & Sato, 2016; Bryan et al., 2003; Dykstra-Steinbrenner & Watson, 2015; Keefer et al., 2000; Ryan et al., 1998). Educators need to reflect on their students and the classroom culture to discover why their students are not collaborating and acting quiet during discussions (Keefer et al., 2000). As educators, we want what is best for our students, and the underlying causes of why students are not taking part in class discussions can be damaging for students both socially and academically.

Research Questions

The research questions for this study were:

- How does active participation in student-led discussion impact students' engagement as measured by their talking, asking questions, and commenting on peers' ideas?
- How does active participation in student-led discussion impact student willingness to voice questions?

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- What is the impact of student-led discussions on academic achievement as measured by student reading scores?

This chapter begins with the theoretical framework, which is centered around student engagement and connects to my research questions. I will then analyze a variety of literature based on student discussions and social involvement in the classroom. Next, I discuss historical perspectives within a language arts classroom and student discussions. I then explore the concept of equality focusing on Black students, Marshallese students, and females. The chapter concludes with a related research section that focuses on other researchers' findings on the topic of student involvement and student discussion.

Literature Review Methodology

For this literature review, I analyzed articles from credible journals and books that connected with student engagement and student-led discussions. These resources helped me build my understanding of student discussions and the complexity of a student's academic growth. The purpose of this review was to build background knowledge on the topic of active participation in student-led discussions. When researching the different articles and books, I used the university's online library and EBSCO. They provided me with a variety of journals and books that related to my topic. Another search engine that was useful was JSTOR. I wanted an assortment of sources ranging from textbooks to peer-reviewed journals. This supplied me with a wide range of materials and resources that related to collaboration and engagement.

Theoretical Framework

My research was based on cognitive constructivism and social constructivism. Cognitive constructivism focuses on the intellectual component of learning (Kukla, 2000). This theory is centered around "the individual's development, serving to construct, manipulate, transform, and append the various mental representations and organizations that comprise the individual's cognitive architecture" (Martin & Sugarman, 1997, p. 376). The theorists behind cognitive constructivism are Piaget (1932), Bruner (1960), and Dewey (2009). They studied the student's level of thinking and strategies most beneficial to learning as well as how it connects to their cognitive development. Social constructivism, however, focuses on a student's collaboration with peers. They research how students learn differently when they are working together and talking. Social constructivism focuses on language and culture (Kukla, 2000). These theories have impacted the way educators teach and create meaningful lessons. My theoretical framework concentrates on these theories and how it connects to my problem of practice and student engagement.

Cognitive Constructivism

The importance of developing a child's critical thinking skills is based on cognitive development. Piaget (1936) and Bruner (1960) researched the stages of thought and the development of the brain. Piaget (1936) focused on how a child views and interprets the mental world around them. He discussed the different stages of development a child goes through in life. His first stage is when the child is the most curious (Piaget, 1936). They are learning words and the names of objects. Piaget's second stage focuses on symbols and concepts. Creativity and imagination are the highest in this

stage. His third stage of development moves into more abstract concepts. The focus of this study is on the fourth stage of development, formal operation. Formal operation is when the students begin to think in a more abstract way (Piaget, 1936).

Development of Critical Thinking Skills

By middle school, many students are entering Piaget's fourth stage of development. The children are beginning to think for themselves and combine ideas and thoughts (Martin & Sugarman, 1997; Piaget, 1936), and they then begin to draw conclusions based on those concepts (Dewe & Deen, 2012). When students are having discussions amongst peers, they are beginning to make connections between what they are learning and the conversation occurring by bringing up innovative ideas and thoughts (Mahoney & Michenbaum, 1995). These discussions encourage students to think for themselves and not just repeat back the information the teacher just stated (Dewey & Deen, 2012). Students are questioning and reflecting on opinions and concepts (Yilmaz, 2008). They should not just accept what the adult has to say.

During discussions, the students can have time to think about their peers' comments and decide how to respond appropriately. The teacher is not leading the discussions; it is all about the students and their connections with the text and thoughts about the characters (Martin & Sugarman, 1997). Middle school students should begin thinking for themselves and building on their peer's opinions and ideas (Dewey & Deen, 2012; Piaget, 1936). The student's brain is developing more maturely in a way that enables them to have more meaningful and critical discussions. The students are thinking for themselves and their maturity level for a discussion will improve for the next occasion.

Abstract Thinking

As the child begins to age, their thought process develops more maturity. Piaget (1957) and Bruner (1960) researched how a child's brain thinks in more abstract ideas instead of concrete ideas. For example, the researchers discovered children can identify themes in a story and ponder about how they connect with other stories they have read. Students begin more in-depth discussions about the topics using abstract concepts such as love, courage, bravery, etc. (Mahoney & Michenbaum, 1995; Martin & Sugarman, 1997). At the middle school age, students are developing the skill of reasoning and then building on those connections (Bruner, 1960; Piaget, 1957). They can have conversations, analyze, and reflect on what the other person has stated, and then respond appropriately and accordingly.

Student Actions within the Classroom

Additionally, Piaget (1932) discussed morality and how students act in the classroom. Heteronomous morality is following the rules and expectations set by the adult or teacher. This morality is essential, because following the teacher instruction will allow students to feel safe and to share their thoughts and opinions (Fadda et al., 2016). Students learn to tell the truth and take responsibility for their actions. Having a heteronomous morality ensures students are following the expectations by being respectful and kind during conversations surrounding controversial topics (Ma, 2013). As a result, it affects the students' attitudes and how they feel about school and discussions.

Moreover, Bruner (1960) explored the importance of attitudes within the classroom setting. Students are curious and want to investigate and discover innovative

ideas and topics. They want to be able to have the freedom to learn, and with that

independence comes positive attitudes and outlooks. During discussions, students are

given that freedom (Ma, 2013). With their peers, they can investigate and analyze a text.

The teacher is not leading the discussion; students are choosing what they discuss and in

what direction the conversation goes (Stapleton & Stefaniak, 2019). Students can discuss

the text with an intellectual thought process.

Purpose of Education

In addition to studying student attitudes, Bruner (1961) also researched the

purpose of education. Teachers should help students develop critical thinking skills and

to understand the importance of self-reward. "Practice in discovering for oneself teaches

one to acquire information in a way that makes that information more readily viable in

problem solving" (Bruner, 1961, p. 4). Educators want students to learn independence

and the ability to make themselves proud, rather than always seeking the teacher's

approval or extrinsic rewards (Stapleton & Stefaniak, 2019). Working in a group, the

students can problem-solve together. They work collaboratively to discuss an issue or

analyze a character or plot of the text (Bruner, 1961; Yilmaz, 2013). Students should be

less dependent on the teacher and more willing to take chances and scrutinize

information. This would help students become more confident in their answers and

encourage them to take part in class or student discussions.

Furthermore, Dewey (2015) studied education and thinking, which helps connect

them to cognitive constructivism. The education process is "a continuous process of

growth" (p. 38). The students, no matter the age, are constantly learning current ideas and

concepts. They are becoming life-long learners (Armour et al., 2015). Through

discussions, they are growing academically and studying current ideas to further that development. They are being educated by their peers and from the peers' personal experiences (Stapleton & Stefaniak, 2019). Dewey (2015) defines thinking as an "active, persistent, and careful consideration of any belief or supposed form of knowledge" (p. 138). When students are conversing about a topic, they are actively taking part in the discussion. They are provided with think time to ponder what their peers have said, and then had the ability to state their own thoughts and opinions based on what is being talked about in the discussion (Castek et al., 2012). Dewey's (2015) theory of education and thinking involves students becoming active in their learning and beginning to think for themselves. When students begin thinking for themselves during discussions, they can share their thoughts and experiences with peers as well as build on their peers' ideas and opinions.

School should be a place where students have the freedom to learn rather than being forced to sit and listen to the teacher speak. Dewey (2009) discusses education and the benefits of inquiry within the classroom. Educators help the students discover, explore, and research more independently. It is based on the students and their own interests (Stapleton & Stefaniak, 2019). They need to create an "environment which stimulates responses and directs the learner's course" (Dewey, 2009, p. 311). During discussion groups, the children can talk about their thoughts and ideas. They can formulate replies to the other students' comments as well (Ma, 2013; Yilmaz, 2013). Dewey (2009) changed education, which resulted in more student-centered work and a determination of the best strategies to help students think critically about ideas and texts.

When students are not active in their learning, they do not have the opportunity to further their learning with reflection or questioning.

Understanding how students think and learn can help educators become more effective when creating lessons. Piaget's stages of development help teachers avoid creating lessons that are too complex or too simple for the students. The level of development in the brain allows the teacher to know if the student will understand abstract topics, or if they are able to make connections between different texts. Cognitive constructivism connects with how educators should be teaching towards the students' needs and mental development.

Social Constructivism

Vygotsky's (2017) research focuses on social development of a child. He discusses the zone of proximal development: students can only learn so much on their own and then they need guidance and assistance from others. Students need help when learning a concept; they cannot learn everything by themselves. Another person can guide them and increase their knowledge (Vygotsky, 2017). During discussions, students move towards the zone of proximal development. Students learn from one another about the text or from personal experiences (Pritchard & Woollard, 2010). They ask clarifying questions that will help them understand the text or concept. Communication during these discussions helps students develop their speaking skills (Pritchard & Woollard, 2010; Vygotsky, 2017). While the students talk and collaborate, their communication skills are improving, which also positively impacts their reflection and critical thinking skills.

The more students talk and reflect, the stronger the connections they can build within that subject area. Vygotsky (2014) discusses the importance of a child's imagination and creativity. Social activities strengthen those traits, which then builds their critical thinking and reflection skills (Barak, 2016). As children grow and mature, their sense of imagination develops and expands as well. They are thinking for themselves and not just repeating what others say (Castek et al., 2012). The "main educational objective of teaching is guidance of school children's behavior so as to prepare them for the future, development and exercise of the imagination" (Vygotsky, 2014, p. 88). People should be able to think and reflect for themselves; not just accept what other people have to say (Martin & Sugarman, 1997). Educators should teach students skills that will improve imagination and creativity. When students are not actively taking part in class, there is no opportunity to share their imagination and creativity with their peers. They are not able to continue to strengthen those skills for the future (Barak, 2016; Kukla, 2000; Pritchard & Woollard, 2010). Discussions are a place where students can share their thoughts and strengthen the skills to help them in situations outside of school and in their future careers.

Social and cognitive constructivism are essential to a middle schooler's development. Outside of school, they listen to their peers, family, and other influential people that can sway their thinking. Educators need to enable students to develop their own way of thinking, and help them to question what they hear, rather than just accepting others' beliefs as truth. In addition to peer influences, the student's mind has transitioned to more abstract and critical thinking. It allows students to build on one another's ideas

and learn new thoughts during the discussion. This theory emphasizes why student-led discussions are essential in schools.

Student-Led Discussions

Student-led discussions happen when the students are talking about a certain topic amongst themselves. They can share their thoughts and opinions, and it builds students' critical thinking skills (Boyd et al, 2011; O'Donnell & King, 1999; Wagner et al., 2017). There is also an opportunity to reflect on what their peers have said, agree or disagree with different opinions. According to Castek, et al. (2012), productive collaboration has the following: "interaction that drew attention back to the inquiry prompt, dialogue, that helped determine where online resources were relevant to the inquiry prompt, and equal contributions to the dialogue that resulted in a jointly constructed summary that included salient details" (p. 487). These interactions allow students to discuss a topic and critically think about what their peers are saying (Boyd et al., 2011; O'Donnell & King, 1999). These discussions are meaningful, and students are increasing their learning due to the discussion (Boyd et al., 2011; O'Donnell & King, 1999; Wagner et al., 2017). Student-led discussions benefit a student's academic learning and builds essential skills that they will use outside of school.

Types of Grouping

Should we be grouping students by academic level or include a variety of levels in one group? There are two types of grouping: heterogenous and homogenous. Heterogenous grouping is grouping students according low, average, and high academic abilities; it is also known as mixed grouping. It is where students of varying levels of

academic ability are all placed in the same group. A drawback of mixed grouping is that students with lower abilities are not as successful in their learning; they do not participate and let the higher ability students take the lead (Murphy et al., 2017; Tereshchenko et al., 2018). Mixed grouping allows students to help one another and build on each other's background knowledge.

Homogenous grouping is categorizing by similar academic abilities; it is also known as ability grouping (Murphy et al., 2017; Steenbergen-Hu et al., 2016; Tereshchenko et al., 2018). A disadvantage of ability grouping is that some students acquire self-esteem issues, because they know they are in a lower ability group (Steenbergen-Hu et al., 2016). Ability grouping allows the teacher to work solely with the lower ability group; giving them more attention and helping them strengthen their skills (Steenbergen-Hu et al., 2016). The learning opportunities within the groups are more evenly balanced (Murphy et al., 2017; Tereshchenko et al., 2018). Grouping based on similar abilities versus mixed has been an ongoing debate throughout education; there are negative and positive impacts with both types of grouping. For this study, I focused on heterogenous groupings, because I wanted students to interact with other students of different academic abilities. Everyone should have a voice in the discussion.

Critical Thinking Development

Discussions impact a student's learning and helps them think in different ways and gain alternate perspectives. Effective discussions help build critical thinking skills because students are talking amongst themselves and staying on-topic. They are collaborating and debating the text (Asrita & Nurhilza; 2018; Castek et al., 2012; Dass et al., 2014; Hulan, 2010; Keefer et al., 2000). During discussions, students build and

strengthen their skills by reviewing their peers' arguments, evaluating the topic, reflecting on what they have previously stated, analyzing the statements shared, and participating in what others have discussed (Asrita & Nurhilza, 2018). Another component that strengthens critical skills is a lengthier discussion. If the discussion is longer, the students will have more opportunities to build on each other's thoughts and statements (Boyd & Rubin, 2002). These skills are essential for students and their cognitive development, and when students are sharing their own ideas, it builds those skills and helps further the student's learning.

Sharing Thoughts and Opinions

Discussions are a place where students can share their own thoughts and ideas about a topic or text. During small group discussions, the conversation can lead to students talking about what they think about a certain topic, and then their peers commenting on it (Ballinger & Sato, 2016; Boyd & Rubin, 2002; Kazemi et al., 2014) Because they are sharing and building on each other's viewpoints, it is enhancing their learning (Castek et al., 2012). Hearing about other's experiences and opinions allows students to think in diverse ways and analyze ideas with a new perspective they might not have previously entertained prior to the discussion (Boyd & Rubin, 2002; Grover et al., 2014; Keisu & Ahlström, 2020). Since the students have more freedom to express their ideas, they are more willing to share and contribute to the conversation. They build their confidence in what they are going to say (Groenke & Paulus, 2007). During discussions, teachers can share their thoughts as well (Dass et al., 2014). Since discussions are the place where many different perspectives and viewpoints are stated, the students also have a chance to reflect on any new information that was shared.

Reflection

Because students are hearing a variety of beliefs and opinions, they need to be able to reflect on what was being deliberated in the discussion and how they feel about those ideas. Discussions help students understand and apply reflection skills (Altinay, 2017). According to Rothstein and Santana (2018), reflection allows students to "deepen their learning, develop greater confidence for moving forward and applying their newly developed skill, and reveal to their teachers a new depth of understanding that may not have previously been detected" (p. 119). Reflections make students think about what others discussed which helps them understand each other and their personal lives. After discussions, teachers are also able to reflect. They think about what the students have said about the topic, if they are understanding it, and any new information they learned about the student (family life, past experiences) (Keefer et al., 2000). Reflection leaves both teachers and students thinking about the discussions and what information was shared. Student-led discussions lead to more student engagement in the classroom.

Motivation

Getting students motivated about a topic can be a struggle. Unmotivated students are not likely to share in a discussion. Often, they will just sit and remain disengaged during the whole conversation (Bryan et al., 2003). Discussions encourage students to talk and converse. Other peers can inspire unmotivated students to participate during a discussion. Good student leaders can motivate students and help them see the excitement in the topic (Altinay, 2017; Bryan et al., 2003). Being able to connect with a text and topic helps enthuse students, and as a result, they are more willing to take part in discussion (Bryan et al., 2003). Motivated students will then be more willing to conduct

additional research, and then share their findings in the discussion groups. This results in

deeper thinking and encourages others to become driven to research the topic as well

(Ryan et al., 1998). Motivation can be contagious between students and persuade them to

investigate and share their findings with the student-led discussion group.

Student Engagement

Student engagement creates active and productive discussions. Wang et al. (2014)

defined engagement as "a student's active involvement in classroom learning activities"

(p. 517). Instead of just sitting and listening to a teacher lecture, discussions allow

students to do most of the talking, which results in them being actively involved in the

conversation (Ballinger & Sato, 2016; Dass et al., 2014). Discussions create student

engagement, because the students talk with one another, develop interest in the specified

topic, reflect on what their peers have said, and exchange their own viewpoints and

thoughts (Hulan, 2010). To keep student engagement high, the discussions should not be

so brief that the students cannot discuss the topic (less than six minutes) or so long that

they lose interest (longer than twenty-one minutes) (Dykstra-Steinbrenner & Watson,

2015). Along with the time range, another way to increase student engagement is the

frequency of the discussions: the more often discussions happen in the classroom, the

more engaged the students will become (Dykstra-Steinbrenner & Watson, 2015). As a

result of active student engagement, student learning will increase (Asrita & Nurhilza,

2018; Bryan et al., 2003). Within the discussion, another way to increase student

engagement is to encourage the students to ask questions to further the conversation.

Asking Questions

Asking questions during a discussion keeps the conversation going, and it helps students develop a more in-depth understanding of the topic and consider different perspectives. Questions allow students to be vulnerable, which can be nerve-racking for someone who is shy (Hulan, 2010; Rothstein & Santana, 2018). Building up the confidence to ask questions allows students to share their own thoughts and learn from each other's ideas and opinions (Boyd & Rubin, 2002; Castek et al., 2012). Because asking questions furthers the discussion, the students will be more willing to discuss individual experiences and how they relate to the text.

Rothstein and Santana (2018) discuss the Question Formulation Technique. This is where the teacher first sets goals and procedures. Then the students learn about open- and closed-ended questions. Next, the students discuss the questions they asked and how to improve. After that, the class discusses the importance of each question and how to incorporate these inquiries into different situations. Finally, the students reflect on the whole process and the types of questions. This technique allows students to think about the questions they are asking and also using their critical thinking skills.

Asking questions makes students become more "independent thinkers and self-directed learners" (Rothstein & Santana, 2018, p. 3). Students, rather than teachers, are building their own individuality and are taking charge of their learning. Because students are becoming more independent, they will be thinking in ways they have not previously (Koechlin & Zwaan, 2014; Miles, 2013). Asking questions is an essential skill for inside and outside of school; it is a lifelong ability that students will take into their future careers (Koechlin & Zwaan, 2014; Ryan et al., 1998). Asking questions in a discussion is

beneficial to both the individual and the peers around them, however there are students that do not pose questions.

Silent Listener

There is always a student who will refuse to take part in the discussion. The student is not disruptive, but they will not share their thoughts or opinions about the text or question. If the discussion group is too large, students are not as willing to talk and ask questions. This may be due to the nervousness or anxiety (Ballinger & Sato, 2016; Wenham, 2019). During discussions, students do not want to be called out, because they may not know the answer or be adequately prepared. This can result in the student shutting down, refusing to talk, and then not taking part in future discussions (Wenham, 2019).

Even if the student is not participating in the discussion, they could still be actively listening. Students may be listening and understanding what their peers are saying but are too shy or anxious to speak. If the student is focused, truly paying attention, and understanding what the speakers are saying, they are benefiting from the discussion (Ballinger & Sato, 2016). Student engagement requires students speaking and asking questions during a discussion. A silent listener does have the disadvantage because the educator may not know until the assessment that they did not fully understand the concept. Discussions facilitate active participation, and even if a student is a silent, active listener, the discussion is still positively impacting their learning. This type of active listening also encourages language development.

Language Development

Language development is an essential part of students' academics. Speaking is the first skill a child learns (Boyd & Rubin, 2002). Students need to distinguish the difference between social talk and academic talk. They need to be able to have conversations with their friends and have discussions about topics that strengthen their critical thinking skills (Dass et al., 2014; Storch, 2001). If a student struggles with communication skills and forming complete thoughts and ideas, they are less likely to take part in the student-led discussion (Dykstra-Steinbrenner & Watson, 2015). Students who have language development issues can strengthen their communication skills by actively listening and focusing on what their peers are saying and sharing (Boyd & Rubin, 2002). The active listening component helps students concentrate on the topic and the words that the students are speaking, which will help them pick up new information and learn through their peers (Keefer et al., 2000).

Teachers need to educate students on how to interact with others appropriately and respectfully in hopes of having the discussion strengthen and grow the student's language development (Grover et al., 2014). Teachers are increasing student's heteronomous morality by supporting the discussion to become academically successful in addition to building a classroom community (Fadda et al., 2016). Discussions are double opportunity spaces, which means "peer talk serves simultaneously as an arena for meaning making within childhood culture, as well as a springboard for the mastering of social, cognitive, and discursive skills" (Grover et al., 2014, p. 23). Language development is a life-long skill; students will use their communication skills when they enter the workforce, and it helps them become more successful and productive

community members (Dass et al., 2014; Keisu & Ahlström, 2020). Language

development is a cognitive growth that helps students both inside and outside of school,

and discussions make a positive impact on that development.

Classroom Environment

Classroom environment contributes to how successful a student is in the

classroom. Anderson (2010) defines this term to include "indoor and outdoor spaces used

by children to learn and teachers to teach" (p. viii). Heteronomous morality helps

classrooms become a safe and welcoming place where students have a sense of

belonging. Students should feel a part of the classroom and not alone. When the teacher

encourages question asking, the environment promotes student inquiry and excitement

(Koechlin & Ahlström, 2020; Ryan et al., 1998). Students want a positive environment

where discussions are encouraged, and lessons are exciting and interactive. As a result,

the conversations continue and flourish.

Teachers should not be too strict with providing students with more opportunities

to talk (Wenham, 2019). This type of environment encourages teachers and students to be

equals in the conversation; there should not be a leader and follower (Koechlin &

Ahlström, 2020). The teacher does not dictate the conversation and students have the

freedom to take the conversation in their own direction. Ballinger and Sato (2016) states,

"The main concern for teachers should not be whether all learners get similar

opportunities to speak, but rather the actual learning opportunities different groups create

and how each individual learner takes advantage of these learning affordances" (p. 57).

The classroom environment is essential in how students feel in the classroom and

whether they are willing to participate in the discussion. A positive and welcoming

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classroom environment does not magically happen on its own; the teacher needs to set expectations of acceptance for peers.

Teacher's Role

The teacher creates and sets up the classroom expectations for the students to follow at the beginning of the school year. The teacher needs to instruct the students about the expectations and norms of a positive, inclusive, and respectful discussion (Keefer et al., 2000; Koeclin & Zwaan, 2014; Ryan et al., 1998). These expectations also connect with Piaget's heteronomous morality and students following the projected rules and procedures.

The students need to be taught about how to have a successful conversation and then have them model it for the whole class. The repetition of having a discussion allows the students to understand the expectations (Ballinger & Sato, 2016; Bryan et al., 2003; Dass et al., 2014; Dykstra-Steinbrenner & Watson, 2015). Students need to know what the expectations are and, as a result, they will receive more academic knowledge out of the conversation. These norms include students being helpful and supportive when others are speaking and having a positive mindset (Ballinger & Sato, 2016). The expectations need to be detailed and specific. The students need to know exactly what is expected of them and their peers during student-led discussions (Dykstra-Steinbrenner & Watson, 2015).

Having these types of expectations allows students to stay more confident in their responses and feel safe to share their viewpoints (Asrita & Nurhilza, 2018; Dass et al., 2014). This confidence stems from the knowledge that they will be respected and valued

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when they speak and share their opinions and ideas. Keeping students in a positive mindset and teaching them the importance of being respectful will allow everyone to feel safe to share their ideas and, as a result, they will be more accepting of their peers and their opinions.

Lecturing benefits auditory learners, because they can hear what the teacher is teaching instead of just reading it (O'Connell McManus et al., 2003; Schwerdt & Wuppermann, 2011). Students also ask clarifying questions and hear other students' questions as well (Schwerdt & Wuppermann, 2011). However, lecturing does not encourage student involvement and engagement in the topic. Students make larger academic gains when they are actively involved in the topic (Mataka & Taibu, 2020; O'Connell McManus et al., 2003). All students do not learn at the same pace, so having students work more independently allows them to take ownership of their learning and challenge themselves (Mataka & Taibu, 2020; Schwerdt & Wuppermann, 2011). Teacher lecturing has academic advantages and disadvantages to a student's learning; there has been an educational debate for years on how to effectively teach a topic and differentiating the lesson to increase student success.

Acceptance of Peers

The classroom expectations create an environment where all students feel accepted and a sense of belonging in the classroom. During discussions, a leader will emerge from the group; the leader should make certain that everyone is being respected and no one feels left out of the conversation (Storch, 2001). That student encompasses strong leadership skills that makes everyone feel welcomed. If students do not feel safe or accepted, they will not participate in the discussion; they will sit silently unwilling to

share their thoughts (Keisu & Ahlström, 2020). Students also want to say the correct answer and often feel ashamed when they answer incorrectly. Encouraging students to accept one another allows them to be confident and share their opinions even if they are incorrect (Wenham, 2019). When students feel recognized and appreciated, they discuss their opinions, and because of this, students learn more about their peers and their experiences (Hulan, 2010). They can learn a lot from one another, and that strengthens the class and the positive environment. Giving all students the opportunity to share their opinions allows them to feel more willing to discuss. They feel as if their thoughts are valued and acknowledged (Miles, 2013). The positive classroom environment guarantees that students feel safe and accepted in the classroom. A strategy to support this is a detailed and thorough list of classroom expectations.

Getting students to discuss topics can be challenging, but there are many benefits for student learning when discussions do occur. Students should not just listen to the teacher lecture; active participation helps students to better learn and retain the information. It also gets students involved in the subject. My problem of practice focused on a quiet classroom, where passive learning is happening. Student engagement and involvement are essential components to active participation. Student-led discussions connected with my problem of practice because students should be engaged in the lesson and talking with one another instead of just passively listening to the concept being presented by the teacher.

Historical Perspectives

Learning and teaching have changed over time. The emphasis of classroom discussion in recent years has increased. Over the years, teachers have realized the

importance of teaching to the individual student and their needs (Cooper & McIntyre, 1994). Discussions have become more student-centered rather than teacher led. Teacher-led discussions feature the teacher asking the questions and leading the discussion the way they want it to go (Kinder & Harland, 1994). With this type of learning, the teacher already knows the exact destination of the lesson and what exact topics are going to be discussed. Moving toward more student-centered learning instead of teacher lecturing provides additional opportunities for dialogue in the classroom. A change that occurred in education is the switch from teacher lectures to more student-centered teaching.

Analyzing both types of discussions have led me to choose student-led discussions, because I want the students to take charge of their own learning. I want to challenge their thinking, not just give them the question that they have to answer. I am not searching for a correct answer; the students are taking control of what they want to discuss based on the chosen topic. Because dialogue is a component of more student-centered learning, it helps students improve their communication (Wells & Arauz, 2006) and critical thinking skills (Hulan, 2010). Student-led discussion provides teachers with an informal assessment on the student's learning (Nassaji & Wells, 2000). Student-led discussions relate to student-centered learning, because the students are taking control of their own learning and communicating their thoughts and opinions with their peers.

Equalities Concerns

This section is dedicated to the inequalities that can occur within discussions. When creating discussion groups, it is essential to be mindful of bias that could occur. The three different focus groups in my research who have been stereotyped are Black students, Marshallese students, and female students. Black students can be categorized

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based on their skin color instead of their academic ability (Caughy et al., 2018; Kisfalusi et al., 2019; McGrady & Reynolds, 2013). Marshallese students have also been stereotyped as being quiet in the classroom and unwilling to share in a discussion (Heine, 2004; Schwartz, 2015). Finally, females could be grouped incorrectly due to their personality of helping others stay on-task (Eddy et al., 2014; Legewie & DiPrete, 2012). Bias and discrimination need to be eliminated from the classroom, and researchers need to be aware of any unequal treatment that may occur.

When thinking about grouping based on ability, racial discrimination could occur within the clusters. Numerous lower income students struggle with their academics and need additional support in the classroom. Many Black American families live in lower income housing and then are categorized based on that assumption (Caughy et al., 2018; Kisfalusi et al., 2019; McGrady & Reynolds, 2013). Because students from poverty do not have as many resources, they are not prepared for school. They may come to school with behavioral issues or struggles with academics (Caughy et al., 2018; McGrady & Reynolds, 2013). The students may also have trouble with attending classes due to a variety of reasons, which then affects their academics (Caughy et al., 2018).

Teachers, especially white teachers, often make predetermined judgments based on the student's race and social status. They assume the student should be in the lower ability group for discussions (Caughy et al., 2018; Kisfalusi et al., 2019; McGrady & Reynolds, 2013). The teacher may be creating groups and unconsciously putting all of one race into a certain group (McGrady & Reynolds, 2013). In these incidents, the teacher needs to be reflecting and become aware of the discrimination that could occur. When creating homogenous discussion groups, it is essential that the educator is not

making assumptions based on the student's skin color (Caughy et al., 2018; Kisfalusi et al., 2019; McGrady & Reynolds, 2013). Teachers need to analyze their groups and reflecting on whether there is discrimination happening, such as all the Black students being placed in the lower ability group. Since the school at which I conducted my research has many Black students, I needed to be mindful when I was creating groups. I needed to guarantee I focused on ability and not skin color. I wanted to create an environment where everyone felt comfortable to share their thoughts and life experiences. This inequality can easily occur subconsciously, so I wanted to be careful when assigning students to groups.

Marshallese students can often be stereotyped based on their culture. In Marshallese culture, education is not of high value (Schwartz, 2015). This can cause teachers to assume that if the parents do not care about school, neither does the child. This can create stereotypes of Marshallese students being lazy and unconcerned (Heine, 2004). Marshallese students value family very highly in their culture (Heine, 2004). They want the support of their family, and in my experience working with Marshallese students, they live in multi-family households and spend weekends hosting neighborhood events. Another aspect of their culture is that they are not to ask questions as a sign of respect (Heine, 2004; Schwartz, 2015). This linked to my research because I wanted students to ask questions and share their ideas, but this component of Marshallese culture can lead to some obstacles. Creating a safe community that values culture and ideas was my hope so that Marshallese students can speak out and share their thoughts.

Females can be placed into certain groups based on their presumed personality. Females have often been stereotyped as being quiet, well-behaved, and hard-working. It

is assumed they will do their work without any disruption, while males are more vocal and have behavioral problems (Legewie & DiPrete, 2012). As a solution, the teacher may put the females with the males to help them stay on-task and be less troublesome. This can result in inaccurate placement in ability grouping. Teachers need to acknowledge the biases and sexism that can occur in classes (Eddy et al., 2014). They are to be conscious of the placement of females: are they just putting them in a group to help manage the classroom, or are they purposefully placing females in groups that will be the most academically beneficial to them? Females should be encouraged to take part in class, and not have to watch over the males so they are acting and following the expectations appropriately.

When creating my discussion groups for the research, I needed to be attentive to this issue, because in the past, females have been helpful to settle down some of the rowdy males. I wanted to place students based on academic ability instead of behavioral problems that may occur. The female students should not have the responsibility of keeping the male students on task. They need to be given the same opportunity to voice their thoughts as the males. The female students deserve to be properly placed for their learning and helping them improve on their skills.

Related Research

Many researchers have studied the topic of student-led discussion. They have discussed online discussions, disadvantages of a silent classroom, and student involvement. All the research focused on students: how they participated during the discussion and what the academic effects were from those conversations (Altınay, 2017; Asrita, & Nurhilza 2018; Dass et al., 2014; Dykstra-Steinbrenner & Watson, 2015; Keisu

& Ahlström, 2020; Wenham, 2019). In this section, I analyze related research articles that focus on student-led discussions and how they are similar and different to my research.

Both Keisu and Ahlström (2020) and Wenham (2019) focused on the silence in the classroom. While Keisu and Ahlström's (2020) research centered around the silent voice, Wenham (2019) studied the silent classroom. The purpose of the Keisu and Ahlström (2020) study was to investigate students in a group discussion which concentrated on the topic gender and diversity within the groups. They used ten groups from four different schools including both elementary and secondary settings. The participants were interviewed and discussed their feelings and opinions about the discussion group. The study took place over three years. The researchers found that females feel more anxiety about discussions due to the harassment they may feel. The females were feeling the pressure of always having to be correct; they did not want to get the answer wrong due to the fear of getting bullied. They would rather just stay silent than get the answer incorrect. The discussions should be a safe place for students to experience their thoughts and creating an accepting environment is essential.

Next, Wenham's (2019) purpose of study was to investigate how damaging it can be for a student to be put on the spot. The emotions they feel can create a negative classroom environment where no one wants to discuss. The researcher used interviews and observed the students in discussion groups; these groups included both small groups and one-on-one settings. The interviews that the researcher conducted allowed the author to ask questions about why the participant was not speaking and the underlying causes for their silence. Wenham (2019) used semi-structured interviews, and then became less structured and more open with the students. She discovered students need to feel

comfortable in the discussion; otherwise, they will feel embarrassed or ashamed to speak out. They do not want to look stupid in front of their peers. Both studies linked to my research, because classroom environment is a major component in having students become active participants. Students should feel safe in the classroom to share their thoughts and ideas, because if they do not feel welcomed, they will be less likely to share during the conversation.

Asrita and Nurhilza (2018) researched the cognitive skills that discussions help build and strengthen. The purpose of their study was to investigate the critical thinking skills that students use when they are discussing a topic. The participants were from a fifth-grade classroom and were split into two discussion groups. The researchers observed and taped the activities that were occurring in the classroom. They took notes during the discussions and created transcripts from the videos. Asrita and Nurhilza (2018) also included the teacher and her participation in the study. They found during the discussions the students utilized their imagination, connected to prior experiences, and built comprehension skills. Additionally, they observed the impact of teacher feedback and how beneficial that can be for student learning. Studying student's cognitive skills connected to my research. Asrita and Nurhilza (2018) studied the student discussion groups focusing on critical thinking skills and what factors helped foster a student's learning and strengthened their knowledge of the topic.

Dass et al. (2014) researched classroom talk and how it affected the students and their learning. Their purpose of the study was to investigate classroom discussions and how it shaped language. The researchers also included discussions and the impact of language development and critical thinking skills. Their study was based on Social

Constructivist Theory. The researcher taped all the classroom discussions and interviewed both the teacher and students. Dass et al. (2014) discovered the significance of having students feel comfortable during discussions and how it positively impacted essential skills for students. Focusing on the classroom environment and how that impacted student learning connected to student-led discussions. Their research affected student discussions and why it was essential to incorporate them into the classroom.

After getting the students to talk in a discussion, the next idea was student learning. Altınay's study (2017) focused on student learning in an online discussion format. The purpose of the study was to investigate online group discussion. The researcher also included participation involvement. This study used qualitative methods, which centered around different perspectives and experiences of the participants, who were undergraduates in college. Altınay (2017) discovered the importance of discussions and how impactful they can be on a student and their academic success. Discussions help students talk about relevant and significant topics and give students the opportunity to share about their culture and personal experiences. Student discussion and how it impacts student learning related to my research and the strategies I incorporated into the intervention. Altınay (2017) investigated classroom talk and how it affected a student's learning in a positive and engaging manner.

Finally, Dykstra-Steinbrenner and Watson (2015) investigated student engagement in the classroom centering on the classroom environment, teacher, and student. The purpose of the study was to discover the impact of student engagement with students who have an autism disorder. The descriptive study was centered around eight self-contained classrooms. This included 25 participants with eight teachers. Dykstra-

Steinbrenner and Watson's (2015) research used student and teacher assessments as data collection. They discovered the relation between engagement and classroom environment. Students are more willing to take part if they feel safe. Also, they revealed there was a connection between student characteristics and engagement. A similarity between this study and mine was they both incorporated classroom atmosphere and how the students felt in the classroom (Do they feel accepted within their discussion group? Do they feel comfortable sharing their ideas?) Dykstra-Steinbrenner and Watson's (2015) research impacted student engagement in the classroom and how to incorporate it through student discussions.

The importance of talking, cognitive and social skills, student learning, and student engagement all connect to student-led discussions and how they affect student learning. The first step is building an environment where the students are encouraged to talk and know that it is safe to share ideas and opinions. The second step is analyzing students' learning and how that affects both their cognitive and social skills. The last step is identifying student learning about the topic and how comfortable they feel when sharing their thoughts. My problem of practice was centered on how damaging it can be for a student in a silent classroom. Teacher lectures have students passively learning and participating. The research from the studies above showed the importance of active participation in the classroom.

Summary

Student-led discussions focus on students conversing and collaborating about a topic and building their critical thinking skills. An educator wants their students to participate in these discussions because it helps them academically and socially. In this

literature review, I focused on the theories from Piaget (1957), Bruner (1960), Dewey (2009), and Vygotsky (1978). Each theorist contributed to social and cognitive constructivism; they researched how critical thinking affects cognitive development, and how the zone of proximal development helps students' social development during a discussion. Discussions also help build student engagement within the classroom which influences students' learning in a positive manner. Asking questions and actively listening can help further the conversation and encourage students to build on each other's viewpoints. Critical thinking skills and reflection skills strengthen during the discussions, and these skills are essential life-long skills students will need outside of the classroom. Students are motivated by their peers; when one student experiences excitement, it can be contagious in the classroom. Students develop their language through discussions, which can also make them more comfortable and secure in sharing their ideas. These components build on each other to help a student become successful both inside and outside of the classroom.

Researchers have been studying discussions both in a face-to-face or online format. My research focused on the face-to-face platform and how successful students are in those discussion groups. Research showed students who take part in discussions grew academically. It demonstrated the importance of a positive and welcoming classroom environment where students feel comfortable sharing their ideas and opinions. These researchers all concentrated on student discussions and the impact they make on the individual. The literature review analyzed the different theorists and articles that centered around student learning and discussion groups.

CHAPTER 3: METHODOLOGY

The problem of practice focused on students not voicing their viewpoints during teacher-led lessons. When a teacher asked a question, no one was willing to continue the discussion with their personal opinions or ideas. The struggle for teachers occurred when they asked a question, and students looked down and did not respond, hoping they did not get called on to answer. The purpose of this study was to analyze the impact of student-led discussions on academics and willingness to voice opinions during whole group instruction. The study centered around student engagement in small discussion group settings. The intervention focused on having students take more control of their learning and academics. Students took an active part and were engaged during the class period. These discussions provided the participants with this specific opportunity, whereas in lectures or teacher-led discussions, the chance to share viewpoints was significantly lower. Student engagement, social involvement, and academic achievement were all components of student-led discussions and active participation within the classroom.

The research questions for this study were:

- How does active participation in student-led discussion impact students' engagement as measured by their talking, asking questions, and commenting on peers' ideas?

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- How does active participation in student-led discussion impact their willingness to voice questions?

- What is the impact of student-led discussions on academic achievement as measured by their reading scores?

Research Design

This mixed-methods action research study aimed to improve my practice as an educator and address my vulnerabilities by "solving pressing problems" (Herr & Anderson, 2015, p. 4). Action research is a reflective process for educators on how students learn best and on how teachers can improve their practice (Mertler, 2020). This allows educators to alter their teaching based on a students' needs and be more willing to incorporate new teaching strategies or implementations into the classroom (Mertler, 2020). Action research gives teachers the opportunity to describe experiences within their own classroom and analyze students whom they teach daily. In addition to reflection, educators adjust their teaching and lessons to assist students with their academic weaknesses (Herr & Anderson, 2015). This research approach was most fitting, because I noticed a problem in my classroom and wanted to help students who were struggling with voicing their viewpoints.

Within this research, triangulation and evaluation of data guaranteed the rigor of the results and analysis (Creswell & Plano Clark, 2018). Because this research was mixed-methods, I merged both quantitative and qualitative data (Mertler, 2020). This allowed me to provide both numerical data from assessment scores in addition to the participants' viewpoints (Mills, 2014). The quantitative data within this study consisted of pre- and post-assessment scores. The qualitative data was collected from observations,

interviews, and exit tickets. Incorporating both qualitative and quantitative data permitted me to apply various instruments which resulted in a more diverse data collection (Mertler, 2020). Combining the two types of methods into the study granted me with a broad range of data including the participants' context and ideas, along with the scores from the assessments. Mixed-methods supplied a diverse amount of data to the study that neither only qualitative nor quantitative would deliver (Creswell & Clark, 2018; Merler, 2020; Mills, 2014). This action research design improved instruction and provided an effective teaching strategy to support students (Creswell & Plano Clark, 2018). The benefits of these two research designs and the data collect contributed to my educational reflection of my classroom.

Setting

The participants were 7th grade English Language Arts students from Central Middle School (pseudonym). Central is in a Midwestern town of approximately 60,000 people. At the time of the study, the sixth through eighth grade school had approximately 650 students. The demographics were 69% White, 14% Black, 6% Hispanic, 6% two or more races, 3% Hawaiian, and 2% Asian. The students from low-income families made up roughly 48% of the student population (GreatSchools.org., 2020). Overall, the school is diverse in both ethnicity and social class.

Educational programs that the school offers are Tier 2 and 3 Reading Intervention, a variety of music programs, and What I Need intervention. Tier 2 and 3 Reading Intervention classes are fifty-minute periods every day where the reading specialist teacher reteaches reading strategies to a small group of students. The purpose of these interventions is for students to receive additional support with their reading

comprehension. The various and voluntary music programs (orchestra, band, and choir) was offered to all students. They take place every other school day and are approximately thirty minutes. The purpose of these classes is to provide students with an opportunity to sing or learn to play an instrument. These programs are scheduled during What I Need time. The What I Need invention takes place over the lunch hour. These interventions are one hour long every school day. During this time, the students are working on missing assignments or receiving individualized assistance from their content area teachers. In addition to the music program (band, orchestra, and choir), interventions that are available include language arts, science, mathematics, behavioral skills, social skills, exploratory, and social studies.

My language arts general education classroom is diverse with students with different race and academic abilities. The period is 50 minutes long every day, and I teach five periods of instruction within that day. There is a specialized co-teacher in three of the class periods. Approximately 96 students come through my classroom daily. The curriculum I use for instruction is Engage New York. It is aligned to both the Common Core and state standards. The goal of Engage New York is to "prepare our students to become lifelong learners and thinkers, as well as active participants in civil, community, and professional endeavors" (Engage New York, 2017, para 1). This curriculum is both challenging and rigorous. The students are reading at-level or above level texts with complex vocabulary words and thought-provoking, open-ended questions. Table 3.1 shows the cultural and academic characteristics of students in general education classroom.

Table 3.1. Overall Student Characteristics

Cultural Characteristics	Number of Students
African American	15
Caucasian	73
Latinos	3
Marshallese	4
Yemeni	1
Academic Characteristics	Number of Students
Gifted and Talented	23
Tier 3 Reading	4
Tier 2 Reading	5
Individualized Education Plans in reading and writing	12

Sample

The participants in my research were chosen from my What I Need (WIN)

Intervention. There were 12 students who participated in this study with a mixture of both

genders and academic capabilities. The intent was to "select a large number of

individuals who are representative of the population" (Creswell & Clarke, 2018, p. 176).

I wanted my sample to represent the school they attended regarding to gender, academic

ability, and culture. Usually in the WIN intervention, there are 20 students, but for this

study, I chose 12 participants. I decided on this number of students, because with mixed-

methods, the "idea is to develop an in-depth understanding of a few people because the

larger the number of people, the less detail that typically can emerge from any one

individual" (Creswell & Clarke, 2018, p. 176). The academically heterogenous groups allowed students to be placed in a setting in which the students were intellectually challenging one another. I selected a purposeful sample with a maximum variation for my study. A purposeful sample means deliberately choosing students to take part in the study (Creswell & Clark, 2018). Maximum variation is when "participants are chosen based on how different they are on a given characteristic" (Duesbery & Twyman, 2020, p. 69). The criteria were:

1. Students not participating in other interventions or music programs
2. Equal number of females and males

I focused on these criteria because I wanted equal gender representation within my study and scheduling conflicts.

Additional selection criteria for inclusion were as follows:

1. Students who only answered questions when they were called on by a teacher (based on my observations).
2. Students who not answered even when they were asked the question (based on my observations).

I observed these behaviors during a general education language arts lesson that I teach. The students were tallied on how many times they would volunteer to answer a question and if they would try to answer a question when asked directly by the teacher. All the participants volunteered less than five times out of ten questions asked and answered less than three questions out of five when asked by the teacher.

The exclusion criterion for this study were the participants involved in the music program, reading intervention, or behavioral intervention because this study was conducted during the same time period as those programs. Due to scheduling conflicts, some of the students were not able to participate in the intervention. This led to a small sample to choose from. This disadvantage created a less culturally diverse group than I would have intended for.

Table 3.2 presents characteristics of the participants and the data collected for the inclusion criteria. All the student names are pseudonyms.

Table 3.2. Individual Student Characteristics

Student Name	Characteristics	Times voluntarily answered a question? (out of 10 questions)	Times answered when called upon? (out of 5 questions)
Daniella	• Female • African American • Tri 1 and 2 Language Arts Grades: F, C+ • Attendance Issues	• 3	• 2
Leon	• Male • Marshallese • Tri 1 and 2 Language Arts Grades: C+, C • English Language Learner • Prefers to work alone	• 2	• 2

Ivy	• Female	• 5	• 3
	• White		
	• Tri 1 and 2		
	Language Arts		
	Grades: A, B+		
	• Low self-confidence		
	• Prefers to work		
	alone		
Gary	• Male	• 0	• 0
	• White		
	• Tri 1 and 2		
	Language Arts		
	Grades: C+, C+		
	• Issues with work		
	completion		
Weston	• Male	• 5	• 3
	• White		
	• Tri 1 and 2		
	Language Arts		
	Grades: A, A		
	• Motivated to do well		
	• Prefers working		
	alone		
David	• Male	• 3	• 2
	• White		
	• Tri 1 and 2		
	Language Arts		
	Grades: C, C-		

	• Easily distracted by peers		
	• Rushes through assignments		
Greyson	• Male • Marshallese • Tri 1 and 2 Language Arts Grades: C, C+ • English Language Learner • Motivated to do well • Answers when confident	• 5	• 3
Ashley	• Female • White • Tri 1 and 2 Language Arts Grades: A, A • Motivated to do well • Answers when confident	• 5	• 3
Courtney	• Female • White • Tri 1 and 2 Language Arts Grades: A-, B+ • Quiet • Prefers to work alone	• 2	• 3

Toby	• Male	• 5	• 1
	• White		
	• Tri 1 and 2 Language Arts Grades: C+, C+		
	• Easily distracted by peers		
	• Rushes through assignments		
Becca	• Female	• 1	• 3
	• White		
	• Tri 1 and 2 Language Arts Grades: B+, A-		
	• Quiet		
	• Prefers to work alone		
Brittany	• Female	• 1	• 3
	• African American		
	• Tri 1 and 2 Language Arts Grades: D+, B		
	• Motivated to do well		
	• Answers when confident		

Intervention

My six-week intervention focused on student-led discussions. During this

intervention, I scaffolded the discussion skills lessons and pandemic activities.

Scaffolding is defined as the "gradual release of responsibility" (Echevarria et al., 2017). Scaffolding allowed me to first teach the concept which made the students feel comfortable before working by themselves. In this study, it meant having the students discuss without the teacher's assistance. "Students are generally given support until they are able to apply these new skills and strategies in an independent way" (Lee et al., 2016, p. 243). It resulted in students equipped with the skills to successfully have a conversation without the interruption of the teacher or teacher-directed questions.

As the students progressed through the intervention, they learned the importance of collaboration and student-led discussions. They then used those skills during the regular general education classroom. During this intervention course, the students focused on collaboration amongst peers in a small group setting and then reflected on those interactions. The first phase of the intervention involved the students working in whole groups led by teacher questions. The next phase was to continue in a whole group setting, but to have the students lead the discussion. I remained silent and did not prompt the participants with questions. The third phase split students into three group of four, in which they discussed the article using teacher questions. The final phase was the students discussing in their same small groups without teacher questions. The scaffolding component allowed gradual release of responsibility for the discussion. At first the students were in a whole group with supplied questions, then they were slowly given more responsibility and control of the discussion and the direction they wanted the discussion to proceed. Table 3.3 presents the different phases that were scaffolded.

Table 3.3. Scaffolded Teacher Lessons

Phase	Scaffolded Lessons
1	Students in whole group and teacher questions were provided
2	Continue in a whole group setting, but to have the students lead the discussion; no teacher questions
3	Students split up into three group of four and discussed the article using teacher provided questions
4	Students discussing in their same small groups without teacher questions

In addition to scaffolding the discussion skills, I also modeled how to successfully have a discussion. Modeling is when the teacher shows an example of how the task is supposed to be completed (Echevarria et al., 2017). Multiple opportunities for modeling were presented to the students. For example, the students were shown videos of a successful discussion and talked about what the pupils were doing during that conversation. We also modeled as a whole group. The modeling consisted of students watching other students hold a discussion. The students reflected on what they observed during the viewed discussion. The students had an opportunity to work together to have a successful discussion. Table 3.4 describes each week's agenda for the intervention and the modeling techniques I used during the lessons.

Table 3.4. Weekly Agenda and Modeling Strategies

Week	Agenda	Modeling
Week 1	1. Pretest on reading 2. What is a discussion? 3. What makes a successful discussion? 4. Watch videos of different discussions	The students viewed different discussions. They saw how the discussions looked.
Week 2	1. Read about Black Plague 2. Have whole group discussion about the Black Plague 3. Continue whole group discussion on Black Plague 4. Discuss what went well during the discussion and what we could have worked on	I provided the students with strategies on how to highlight important ideas and had them write down questions they have. I led the discussion. I asked the questions.
Week 3	1. Read about Cholera 2. Small group discussions about Cholera with teacher questions 3. Continue group discussion 4. Discuss what went well during the discussion and what we could have worked on	I provided the students with strategies on how to highlight important ideas and had them write down questions they had. I have premade questions for the discussion.

Week 4	1. Read about Typhoid	N/A
	2. Small group discussion about Typhoid with no teacher questions	
	3. Continue group discussion	
	4. Discuss what went well during the discussion and what we could have worked on	
Week 5	1. Read about Yellow Fever	N/A
	2. Small group discussion about Yellow Fever with no teacher questions	
	3. Continue group discussion	
	4. Your group will choose your own epidemic to research	
Week 6	1. Discuss new epidemic that was researched	N/A
	2. Continue small group discussion	
	3. Post Reading Test	
	4. Individual Interviews	

Data Collection Instruments

I used a variety of instruments throughout the study. The qualitative measures were structured observation sheets and semi-structured interviews. The quantitative

measures were pre- and post- assessments and exit tickets. These instruments together answered my research questions.

Qualitative Measures

Structured Observations. The structured observation sheets were used to identify who was actively participating in the discussion. These sheets focused on the following: is the student contributing on topic statements, how many times is the student talking, did they ask someone else to join the conversation, did they ask a clarifying question (Appendix B). Tally marks and checkmarks measured the number of times a student talked. Another 7th grade language arts teacher validated the sheet for any missing components.

Interviews. The semi-structured interview (Appendix C) focused on the students' views on the discussions and how they participated during the six-week period. I used semi-structured interviews to ensure collected more than just one word answers from the students. Students were able to elaborate on their thoughts as well as the interviewer ask questions prompted by the student's answer (DeJonckheere & Vaughn, 2019). Other 7th grade students validated the interview questions for clarity.

Exit Ticket. The exit tickets (Appendix E) were a self-reflection form for the participants after completing a discussion. The exit tickets focused on if the student participated in the discussion and what new information they learned from the conversation. Other 7th grade students validated the exit tickets to ensure simplicity and understanding. After clarity suggestions provided from teachers and students, I revised the instruments accordingly.

Quantitative Measure

The pre- and post-assessments were created by Engage New York, the language arts curriculum. The questions focused on reading comprehension and inferencing. The mid-unit assessment, which functioned as the pre-assessment, had 11 questions. The formats included multiple choice, fill in the blank, and an essay response. It was graded using the points system. Each multiple choice and fill in the blank question were worth one point. The essay was worth 6 points, as the students needed a topic sentence, two pieces of evidence, two reasoning statements, and a concluding sentence.

The end of unit assessment, which functioned as the post assessment, had six questions. There were multiple choice questions, fill out the chart, and an essay. The multiple-choice questions were one point each. The fill out the chart was worth three points. The essay was worth eight points, because the students needed a topic sentence, three pieces of evidence, three reasoning statements, and a concluding sentence. The validation of these assessments was from the creators of the curriculum, the New York Department of Education (Engage New York, 2017). Table 3.4 presents the correlation between the research questions, the instruments, and the type of data collected.

Table 3.5. Instruments used in Research Questions

Research Question	Instrument	Type of Data
How did active participation in student-led discussion impact students' engagement as measured by their talking, asking questions, and commenting on peers' ideas?	• Structured Observations • Interviews • Exit Ticket	Qualitative Measures
How did active participation in student-led discussion impact their willingness to voice questions?	• Structured Observations • Interviews • Exit Ticket	Qualitative Measures
What was the impact of student-led discussions on academic achievement as measured by their reading scores?	• Pre- and Post-Assessments	Quantitative Measure

Data Collection Methods

The methods I used in this study were both qualitative and quantitative measures. The qualitative measures were structured observations, semi structured interviews, and exit tickets. The quantitative measures were pre- and post-assessments.

Qualitative Measure

Structured Observations. Observations of the discussions were an essential component for my data collection. I was a silent observer; the students knew I was observing them and I took notes on their discussion. Intervening would only occur if a student was harmed either physically or mentally. My goal was to be "detached as

possible so as not to contaminate the study" (Merriam & Tisdell, 2016, p. 147). The five observations occurred during each of the student-led discussions. I marked tallies or checkmarks on the sheet to indicate a specific component of the discussion. The data was collected from both the intervention class and the general education class. I used data from the general education class to be able to compare how they did at the start of the intervention and how they changed from a larger group setting to a smaller. I used the sheets to answer the research question about students' social involvement in the classroom and how they were interacting with one another.

Interviews. I conducted semi-structured interviews with the participants. These individual interviews occurred once at the end of the six-week intervention in my classroom. The interviews were semi-structured with predetermined questions along with additional questions that were more flexible due to the importance of addressing issues that may arise during the study (Merriam & Tisdell, 2016). The interviews lasted from five to fifteen minutes. The average interview was ten minutes long.

The importance of prompting allowed the students to stay on-topic but also provided them with an opportunity to share their thoughts and opinions about the discussions. The interviews addressed how the students were feeling about the discussions, as well as the overall intervention. The students reflected on their group members and their role during the discussion. We talked about their willingness to voice questions and how they felt discussing in a large group. The interview questions are found in Appendix C. The interviews were taped using the computer camera application and transcribed for the purpose of going back and reviewing after the participants had left. Through these interviews, I discovered students' thoughts, opinions, and reflections

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about what occurred during the discussions and the intervention. I used the results to answer the research questions that focused on active participation, student engagement, and willingness to voice questions.

Exit Ticket. The exit ticket (Appendix E) was a predetermined questionnaire. After the participants completed their discussion for the day, they answered the written reflection. These exit tickets were taken after every discussion. The questions focused on their own engagement and the engagement of the other group members: Did everyone voice their opinions? Were questions asked? What were some of those questions? The exit tickets determined if all group members were contributing to the discussion. I could not observe all the groups at once; this sheet allowed me to continue to gather information and data while not observing a group. The data collected from the exit ticket helped to see if there was an increase of participation and engagement from the beginning of the study to the end and to notice any evolvement of questioning and voicing opinions.

Quantitative Measure

I analyzed the student assessment focused on academic achievement specific to language arts and the Common Core standards. In the English Language Arts curriculum, Engage New York, there were mid-unit assessments and end of unit assessments. The participants took these assessments (Appendix D and E) the first week of the intervention (mid-unit assessment) and the last week (end of unit assessment). The curriculum named the assessments as mid-unit, because they are placed in the middle of the unit to assess students' understanding before the end of the unit assessment. The students completed them on a computer, which the school district has provided for all the students to use during the school year. These assessments tested the same learning

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standards and targets. The assessments examined the students' academic achievement in the general educational language arts class. The data collected from the assessments determined if the students were furthering their learning with the discussions, or if there were no changes to their understanding of the topic.

Data Analysis

As the six-week intervention concluded, I analyzed the data from both the qualitative and quantitative measures. The data was collected from: structured observation sheets, semi-structured interviews, pre- and post-assessments, and exit tickets. I analyzed each data measure separately and then combined them for triangulation.

Structured Observations

Analyzing the discussion observations required looking through field notes and audiotapes. I created a spreadsheet to show how actively involved the participants were in the discussion. I made notes about how often the students asked questions, and if they were staying on track with the topic that was provided for them. I triangulated the collection with the exit ticket. I analyzed if my observations of how often the participant discussed correlated with what they wrote on their sheets. The triangulation allowed me to validate the exit ticket, and ensure the students were truly discussing and not lying about their participation.

Interviews

Analyzing the interviews required me to listen to the interviews and observe the participants' actions and responses. I triangulated the students' answers from the

interviews with their written answers from the exit ticket. I determined how the students

progressed through the study and if there were any changes in their responses. The

interviews provided me with the participants' thoughts and feelings toward the

discussions. It had their viewpoints about how they felt as they were progressing through

the study, and if there were any changes in their participation in both the intervention and

the general education classroom. The triangulation with the exit ticket created validity

and demonstrated whether the students' achievement increased, deceased, or stayed the

same.

Assessments

Analyzing the assessments allowed me to compare test scores from the beginning

of the study to the end of the intervention class. I used Measure of Relative Position and

looked at the standard score. A spreadsheet allowed me to compare the scores and to see

if there was an increase or decrease in their testing. I triangulated with observations and

analyzed if the student was actively taking part, and how that choice affected their

learning on the assessment. The triangulation with the observations allowed me to

examine if student participation affected their test scores, and if they mastered the

intended learning standard.

Exit Ticket

Analyzing the exit ticket allowed me to see how students were participating when

I was not observing them. The sheet was distributed to the students after each discussion.

These sheets were completed independently, and students did not see other's responses. I

used a Microsoft Form to collect the responses. Once the responses were collected, they

were put into a digital spreadsheet. A digital spreadsheet documented if the student

actively contributed to the discussion and if there were any questions asked. The students

also had an opportunity to voice any concerns to me. The exit ticket addressed any issues

in the interview and allowed for reflection. I incorporated their reflections into the study,

so their voices could be heard.

Rigor and Trustworthiness

Rigor and trustworthiness are both essential components to a research study.

These parts ensure the research is accurate and reliable (Duesbery & Twyman, 2020).

However, the measures vary between quantitative and qualitative methods as discussed

below.

Quantitative

The Engage New York 7th grade assessments are valid since they were developed

by the New York State Department of Education. The assessments align with the

Common Core standards, which many states have incorporated into their education

system. The curriculum has been tested by classroom teachers, in which feedback is

encouraged by those individuals for critiques on improvement (Engage New York, 2017).

The resources and assessments were easily transferred to the needs of the students.

The assessments had many open-ended questions that allowed students to write

their responses in their own words. The curriculum was trustworthy since it was

maintained by the Department of Education in New York State. According to Haydel and

Carmichael (2015), "selected texts are high-quality and appropriately rigorous" (p. 5).

These two authors are experts in standards-based education.

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The qualitative data was collected from the student interviews, observations, and exit tickets. I used prolonged engagement, triangulation, peer review, clarifying bias, and member checking to ensure rigor and trustworthiness. These are all essential components for analyzing data.

Prolonged engagement. Prolonged engagement is "produced by the presence of researcher and to provide researchers with the opportunity to test biases and perceptions" (Mills, 2014, p. 115). Since I was the participants' general education teacher, they spent time with me in the classroom for language arts class, as well as time during the intervention. The students were with me for approximately two hours daily. Naturally, we were able to dedicate time for the interventions and observations.

Triangulation of RQ1 and RQ2. Triangulation was "the practice of relying on more than one source of data by using multiple methods or obtaining varied perspectives" (Efron & Ravid, 2013, p. 70). I accomplished this by using student interviews, observations, and exit tickets. Using three pieces of data allowed me to validate the findings of the study.

Peer review and debriefing. Peer review also contributed to the rigor and trustworthiness of the study. Peer review included having an additional person look over the study and ask clarifying questions (Efron & Ravid, 2013). I shared my research with several teacher colleges, an instructional coach, and my dissertation chair.

Clarifying researcher's bias. I added a section discussing any biases or prejudices I had with my research. I, as the researcher, "must acknowledge [my] own

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personal values and how these values shape [my] perceptions and interpretations" (Efron & Ravid, 2013, p. 41). This allowed the reader to get a better understanding of the situation and of myself as a researcher. My bias is I know the students and have built a relationship with them. Some students I have built a stronger relationship with than others. In addition, I view students differently based on what has happened outside of school such as if they had to walk in the freezing cold to school. I keep that into consideration when I approach the student. Also, for Marshallese students, I acknowledge that they have a quieter personality. In my personal, experience, they do not like to bring attention to themselves. Due to my knowledge of a language barrier, I check-in with them more frequently due to the students not asking questions. These shape my interactions with the students and my thoughts about how they are achieving in my classroom.

Member checking. Sharing the information weekly with the participants allowed them to ensure I was getting the correct information and their own voices were present in the dissertation. I achieved this by asking clarifying questions about their responses. Inquiring about their answers provided me with the student's true opinions and thoughts. I also ensured the microphone was pointed in the direction of the students, and they were speaking loud and clear during the discussion. I wanted to be "honest and accurate" with my explanation of what the students had stated (Efron & Ravid, 2013, p. 71).

Ethical Considerations

When conducting a study, ethical considerations of the participants was vital. I needed to "ensure the safety, confidentiality, and well-being" of my participants (Efron & Ravid, 2103, p. 74). I protected the confidentiality of the data collected on a locked computer and any papers handed in were stored in my classroom in a locked cabinet. I

received assent forms from all the participants. The participants turned in the form before the start of the study. I protected the rights of the participants by using pseudonyms throughout to ensure the names were guarded (Appendix A). I also used a pseudonym for the school's name as well. In addition to confidentiality, I also mitigated my position of power with the participants. The students understood their language arts' grade would not be affected by this intervention. They also recognized they were to be honest with their responses and not only write or tell me what they thought I wanted to hear. They were continuously encouraged to speak how they truly felt and knew there would be no repercussions on their opinions. Ensuring confidentiality and protecting the rights of my participants guaranteed ethical guidelines were followed.

Summary

As explained in this chapter, I conducted a mixed-methods action research study to investigate the impact of student-led discussions on students' willingness to participate and their academic ability focused on reading. This methodology permitted me to investigate how my scaffolded lessons impacted my students' engagement on the topic and if they were more eager to voice their opinions and ideas. Using both quantitative and qualitative measures, I inquired valuable data to improve student learning and create more effective language arts lessons.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

This chapter presents the findings from an action research intervention focused on student-led discussions and their impact on student engagement, willingness to voice opinions, and reading academic scores. The problem of practice I concentrated on was students shying away from asking questions when they were confused or not sharing their thoughts and ideas during discussions; this was examined in Chapter 1. As stated in Chapter 3, I used multiple data collection methods to grasp the understanding of why my students were not talking during class or asking questions to further their learning. I created an intervention with 12 of my seventh-grade students that centered around student-led discussions and scaffolded the lessons to provide gradual release of independence to the students. This chapter explains my analysis and findings from the information collected during this intervention. I incorporated data from pre- and post-assessments, exit tickets, observation sheets, student interviews, and discussion transcriptions to measure the impact of the intervention and the participants' engagement during the discussions.

Quantitative

In this section, the quantitative data were analyzed. The data in the study came from the pre- and post-assessments. These tests measured the participants' reading academics. The standards that the assessments focused on were:

- Analyze the interactions between individuals, events, and ideas in a text (RI 7.3)

- Determine the meaning of words or phrases as they are used in a text (RI 7.4).

Pre-and Post-Assessment

The pre-assessment was given prior to beginning the intervention while the post-assessment was given at the end of the six-week intervention. The assessments' purpose was to measure the students' reading academics focusing on analyzing interactions within a text and word definitions. Both assessments focused on the same standards but had different final scores due to the writing portion of each assessment. In the pre-assessment, the students were asked to write a paragraph using two pieces of textual evidence and then explain the connection between the evidence and the main idea. The post-assessment required the students to use three pieces of textual evidence in addition to explaining their thinking and reasoning. Table 4.1 shows the students' pseudonyms, the percent grade received on their pre-assessment and post-assessment, and the difference in their scores. The difference category indicates the change in the reading academics from the pre-assessment to the post-assessment.

Table 4.1. Student Results from Pre- and Post-Assessments

Student Name	Pre-Assessment Percentage (%)	Post-Assessment Percentage (%)	Difference (+/-)
Becca	75	93	+18%
Courtney	85	100	+15%
Gary	60	73	+13%
Weston	95	100	+5%
Ashley	95	100	+5%
Leon	75	80	+5%
Ivy	90	93	+3%
Toby	75	73	-2%
Daniella	90	86	-4%
Brittany	85	80	-5%
Greyson	90	80	-10%
David	85	73	-12%
Average Score	83.3	85.9	+2.6 %

This table shows seven of the students performed better on their second assessment, which resulted in an increase on their reading scores. When grading the assessments, I used the school's grading scale: A= 90%-100%, B= 80%-89%, C= 70%-79%, D=60%-69%, and F= 59% or less. A passing grade for this particular middle school is a *C* or higher. Becca's scores were greatly impacted: moving from a *C* to an *A*. The growth in her learning increased dramatically. She demonstrated her learning and comprehension of both of the standards. Both Courtney and Gary increased their overall grades by a whole letter grade, which also indicated a significant impact for the students and their learning. In addition to the first three participants, Leon increased a letter grade.

Even though Leon did not have a significant percentage increase (5%), he still was able to improve.

There were also students who did not perform as well on the post-assessment as they did on the pre-assessment. Both Greyson (-10%) and David (-12%) dropped a letter grade. The substantial decrease made me wonder about potential factors that could have influenced the score. Both Greyson's and David's first scores were relatively high (either an *A* or a *B*), but then they both dropped for their second score. Looking at the post-assessment scores, all of the students, but one (Gary) did score a C or higher, which qualifies as passing the assessment according to their school's grading policy.

Using these composite assessment scores allowed me to understand how the students performed on the assessment as a whole. Becca, Courtney, Gary, Weston, Ashley, Leon, and Ivy were able to increase their score from the pre-assessment, which showed a growth in their reading academics. Courtney, Weston, and Ashley answered all of the questions correctly. They showed mastery understanding of the standards. After analyzing the assessments, breaking the assessment into the two standards allowed me to individualize the participants' specific strengths and struggles.

The pre- and post-assessments focused on two standards. The standards that the participants were assessed on includes:

- Analyze the interactions between individuals, events, and ideas in a text (RI 7.3)
- Determine the meaning of words or phrases as they are used in a text (RI 7.4).

Breaking the assessments down by standards showed how the students performed on the individual standard instead of an overall grade. Table 4.2 displays the students'

pseudonyms, the percentage received on their pre-assessment and post-assessment only looking at the *analyze interactions* standard, and the difference in their score. The difference category in Table 4.2 indicates the change in the *analyze interactions* standard from the pre-assessment to the post-assessment.

Table 4.2. Breakdown of Scores based on the Analyze Interactions Standard

Student Name	Analyze Interactions on Pre-Assessment Percentage (%)	Analyze Interactions on Post-Assessment Percentage (%)	Difference (+/-)
Becca	70	100	+30%
Gary	40	64	+24%
Leon	70	91	+21%
Toby	60	73	+13%
Daniella	80	91	+11%
Courtney	90	100	+10%
David	80	82	+2%
Greyson	80	82	+2%
Ivy	90	91	+1%
Brittany	100	100	+0%
Ashley	90	82	-8%
Weston	100	73	-17%
Average Score	75	85	+7%

This table shows that there was an increase in knowledge focusing on the *analyze the interactions between individuals, events, and ideas in a text* standard. Looking at the average score of each assessment, there was a 10% increase in the averages, going from a *C* to a *B*. There were three students (Becca, Courtney, and Brittany) who received a 100%

on their writing because they included all the required components. The students were assessed on the following: topic sentence, textual evidence, reasoning, and concluding sentence. The students had to explain their thinking and used quotes from the text to defend their answers. The students used their knowledge of the topic to support their explanation. They needed to write their explanation on the assessment making connections between the plot, setting, and characters of the text. Students were required to expand their answer to a complete paragraph. Gary, Leon, and Becca showed significant growth in this standard, increased by more than 20%. Becca also stood out, because she went from a *C* to an *A* and answered all the questions correctly in the post-assessment.

While there were some participants who performed better, there were individuals who struggled. Weston went from an *A* (answering all the questions correctly) to a *C*. Looking at his post-assessment, he was missing required components in his writing. He did not include quotes in his paragraph, which resulted in a lower score. Ashley decreased from an *A* to a *B*. She also struggled with quotations in her writing. Both Ashley and Weston were able to explain their thinking based on their topic sentence, but they did not have evidence from the text to support their reasoning. This showed either they had simply forgotten this section from their writing, or they were unsure of which quotes to use from the text. Students found locating quotes to support a main idea difficult due to the length of the text.

Examining the overall scores, it appeared that all students except for two (Ashley and Weston) were successful in increasing their scores for the standard of *analyze the interactions between individuals, events, and ideas in a text*. Even though Ashley and

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Weston did decrease in their post-assessment, they still both earned a *C* or higher, which resulted in a passing grade for the assessment. This standard demonstrates the student's ability to articulate their thinking onto paper. The students were able to write their connections and explain why they chose different textual evidence for a specific interaction. Brittany and Becca, both Black students, showed a mastery of this standard. Leon and Greyson, both Marshallese students, increased their scores in this particular section of the assessment. This standard connected to students' willingness to share their opinions, because if the students were able to write down their ideas and thoughts, then they used those notes during a discussion.

The next standard, *determine the meaning of words or phrases as they are used in a text*, focuses on students using context clues to determine the meanings of words. These questions were all multiple choice, and the students were to choose from the four provided answers. There was no writing portion in this section of the pre- or post-assessment.

Table 4.3 shows the students' pseudonyms, the percentage received on their pre-assessment and post-assessment only looking at the *determine meaning* standard, and the change in their score.

Table 4.3. Breakdown of Scores based on the Determine Meaning Standard

Student Name	Determine Meaning on Pre-Assessment Percentage (%)	Determine Meaning on Post-Assessment Percentage (%)	Difference (+/-)
Courtney	80	100	+20%
Gary	80	100	+20%
Brittany	90	100	+10%
Weston	90	100	+10%
Ivy	90	100	+10%
Becca	80	75	-15%
Ashley	80	75	-15%
Greyson	100	75	-25%
Daniella	100	75	-25%
Toby	90	75	-25%
Leon	80	50	-30%
David	90	50	-40%
Average Score	87	81	-8%

With the *determining meanings* standard, there were multiple decreases in test scores. For these questions, the students had to choose the answer from a multiple-choice bank. The students did not have an opportunity to justify their thinking as to why they chose that specific answer. Both Courtney and Gary did increase their grades from a *B* to an *A*. Becca, Ashley, Greyson, Daniella, Toby, Leon, and David all decreased in their scores. David showed the biggest negative impact, going from an *A* to a *F*. Leon also had a drop in his letter grade, *B* to an *F*. Leon and Greyson are both English Learners and vocabulary is a challenge for both students. The pre-assessment had seven *A*'s, but then

the post-assessment had only five *A*'s. The five *A*'s from the post-assessment were all 100%, which meant the participants answered all of the questions correctly and understood the word meanings within a text. Both

This table's results indicated many of the students did score highly on the pre-assessment, but they did not grow in their learning in relation to word meanings. Looking at the scores, the increase and decrease was split. There was a division because of the wording of the question or the difficulty of the vocabulary word. The questions featured a variety of vocabulary words, chosen from the text. Both assessments' reading levels were higher level 7th grade, which meant that if a student was not reading at grade level, they may have had difficulty reading the vocabulary words as well as comprehending the text. When taking the assessment, some of the students may have had connections with the vocabulary words or already knew their meanings. Other students could have simply guessed on the meaning and had no prior knowledge of the definition.

In addition to the difficulty of the vocabulary words, the students could have also struggled with the type of questions on the assessment: multiple choice. Multiple choice questions may be more challenging for some students because they are not able to explain their thinking (Brookhart & Nitko, 2019). They were to choose one answer and it needed to be the correct one. Multiple choice questions can also trick the students by providing answers that are very close to the correct answer (Brookhart & Nitko, 2019). These questions are meant for the student to think in a specific way. It also can discourage the student because of the lack of engagement (Green & Johnson, 2010). The students are just reading the question and answering, there is no application of their learning. Finally, multiple choice questions should be about the learning, not the reading skill (Morrison et

al., 2013). The student could have difficulty reading the answers, which results in an inaccurate score that measures their reading ability and not their academic skill of word definition. The students that decreased in their scores could have struggled because of the type of question instead of the lack of knowledge of the topic.

This connects with the problem of practice because if a student does not understand a word or its definition, are they simply guessing or are they advocating for themselves? Of the students who did not perform well on this section of the assessments, some did ask clarifying questions during the discussions to further their understanding, while some stayed silent and did not comprehend what their peers were talking about.

Analyzing both Table 4.2 and Table 4.3, the students performed better on the writing section of the assessments than the multiple choice questions. For example, David scored higher on the writing portion than the multiple choice. For the writing portion, he raised his grade by 2%, but in the multiple-choice section, he dropped his score by 40%. Greyson, Daniella, Toby, and Leon also had an increase in scores within the writing portion, and a decrease in scores within the multiple choice. Students performed higher on the writing portion because they were able to explain their thoughts and ideas. Writing does not have to be just one correct answer. Students can think about the prompt from different perspectives and provide quotes to back up their answers. With multiple choice, there was only one correct answer that was provided from the curriculum's answer key. There was no explanation of thinking or reasoning. Table 4.2 and Table 4.3 indicated that students in the intervention did perform higher on the writing portion in comparison to the multiple choice questions.

These tables helped me see the breakdown of the assessment. I analyzed the students' scores by standard and identified which one they were struggling with and needed reteaching. The breakdown also allowed me to discover that there was a growth in student learning with *analyzing interactions*. Even though there was a decrease in *determining meaning*, many of the students still performed well on that section of the assessment, resulting in 10 participants passing the post-assessment with a *C* or higher. Looking at the assessment as well as the breakdown provided me with an overall picture of how the students performed in addition to the individual strengths and struggles based on the standards.

The quantitative data demonstrated an increase in student learning especially with critical thinking focusing on the *analyzing interactions* section of the assessment except for two students. The increase proved they were thinking more deeply about the topic because they analyzed the connection between the character and the plot and then defended their answer with text evidence from the novel. Being able to make connections, evaluate a judgement, and then defend a decision showed higher level thinking from the students. They were not just remembering the events of the plot or reciting facts; they were digging deeper into the text. The findings from these assessments indicated an increase in their reading during the duration of the intervention.

Qualitative

In this section, the qualitative data are analyzed. The qualitative data came from interviews, discussions, exit tickets, and observation sheets. Although the observation sheets collected quantitative data, I chose to triangulate them with the exit ticket, which

asked similar questions. I was then able to connect the two pieces of data that supported my results.

Interviews

The student interviews were held at the end of the intervention. These were conducted one-on-one with the students and the topics were centered around the discussions. The major themes that emerged were (a) *developing effective research strategies,* (b) *cultivating confidence,* (c) *importance of reflection and its impact,* (d) *empowering students in leadership,* and (e) *increase in contentment.*

Developing Effective Research Strategies. During this intervention, there were times when the students were unsure or curious about an epidemic in which they have read. This then required the students to further study their question. It resulted in students using their research skills to answer those inquiries. They then realized researching allowed them to dig deeper into the topic and discover more valuable information.

Gary stated, "I liked doing the research. I liked learning about history." Prior to the discussion, the students were only reading a short article about the epidemic. When questions arose, the students used their school computer to research. Gary's assessment scores did increase during the intervention, which could have been the result of the higher-level thinking required by independent research. Another student found that this part of the intervention was the most difficult. Brittany stated, "When I search diseases it is really hard to find information about them depending on how old they are and how much was documented on it." When thinking about discussions, I did not think about the research process involved in my intervention.

The students may not have known where to look and what resources were available. This could have affected their discussion, because if they were able to find information, their discussion could have been richer with accurate information. If they did not find information, they could have gotten frustrated and just given up. For example, Brittany related to the difficulty of finding information by stating, "Trying harder to find information honestly. Because some of these illnesses are easier to find information about such the Black Death. There was a lot of information to find but with the Hong Kong there was not much information."

Finding reliable sources is a skill that is taught in the general education language arts class, but it should have been emphasized more in the intervention to help when students wanted to learn more about a topic. Having students research their inquiries became a component of the discussions to help them learn more about their topic that the article did not provide, which then resulted in more confidence when conversing with their group members.

Cultivating Confidence. When interviewing the students, a word that continued to emerge was *confidence.* The students found confidence in themselves and their answers. As the intervention progressed, the students discussed their increase of confidence in their answers and their willingness to share their opinions. At the beginning when the students were in a whole group, they were less willing to talk.

Courtney stated her confidence level was low when they were in the large group, "When we were in whole group, I did not talk that much." The students were unfamiliar with each other and were nervous to share their ideas. Being able to get to know the members of their small groups made them feel more comfortable to share and comment

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on each other's ideas. Becca stated, she began "talking a lot and commenting on people's comments and what they were sharing." Students were learning to have a conversation where they built on each other's statements rather than simply sharing random facts about a topic. Courtney also declared the importance of feeling secure enough and confident to share, "For me, when other people share, I want to share. I make sure that I am not talking when other people are sharing. It makes them feel like almost welcomed." When the students felt safe and confident, they were more willing to talk during the discussion.

While some students found their confidence, other students were still nervous about speaking in front of their peers. Daniella stated, "I don't like talking with other people." This was also reflected in her exit ticket and teacher observation. It did not matter if it was in the whole group or smaller group; she simply did not feel comfortable sharing her ideas. David also expressed similar feelings of discomfort, "I don't like talking much during discussions." Some students built their confidence of speaking in front of a group and were able to feel more comfortable in the small group. Other students continued to struggle with sharing their ideas and opinions during both the small group and whole group. It did not matter which setting they were placed in; they still had the uneasy feeling and did not want to share. Some of the uncomfortable feeling then resulted in misbehavior and not giving attention to the discussion.

Importance of Reflection and its Impact. During the interviews, the students were able to reflect on their behavior. One common theme that arose was their behavior as well as their peers'. The students realized their behavior affected if they were staying on-task as well as on-topic during the discussions. Some individuals even needed to remind their peers to stay focused. Students learned the importance of staying on-task and

reminding their peers to be focused on their assigned topic. The students reflected on themselves as well as their peers. Becca discussed, "They usually stay on task but sometimes don't." This then required an individual to remind the distracted peer to participate or focus.

There were other times when the student realized themselves that they were not concentrating on the discussion. David stated, "I kept trying to say stay on-topic." This also was indicated in his exit ticket and the observation sheet. He struggled to be focused during the discussions, but he recognized that he did not follow the classroom expectations. This self-discovery allowed David to improve as the weeks progressed. By the end of the intervention, he was the individual that was reminding other peers to stay focused and on topic. He acknowledged in Week 1 that a weakness was staying focused, but then at the end of the intervention, he reflected that a strength was listening and involvement. Ashley also acknowledged the importance; she noted the significance of "staying on track and not having side conversations with my friends and stuff." Greyson said an important part of the discussion is "staying on-task." This would be significance to his Marshallese culture, because respect and following expectations is a component. Becca expressed, "Listening. 100% on task." By the end of the intervention, the students realized they needed this to happen to have a successful and meaningful discussion. What would happen if individuals were not concentrating? Leaders emerged to help everyone stay focused.

Empowering Students in Leadership. As the weeks progressed, the students recognized that leaders were emerging during the discussions. These individuals encouraged peers to participate and share their ideas on the topic. Brittany stated, "I

sometimes when I work in groups, I become bossy instead of a leader. With the discussions, I tried to get everyone to voice their opinions and know that their voices are important." She was speaking and building on her peers' comments frequently during the discussions; this was indicated during the teacher observations and exit ticket. She genuinely wanted to hear her peers' opinions and then related them to what others were expressing during the discussion. Courtney also stated the importance of letting everyone in the group take a turn speaking, she even created a strategy to ensure that she was not talking too much, "I would wait for about three people before sharing." The student leaders were allowing everyone to speak and did not try to overtake the conversation by being the only one sharing. Both Brittany and Courtney developed their leadership skills by recognizing the significance of including every group member in the discussion.

Another leadership quality that the students acknowledged was being able to keep the conversation going. Becca said, "When there were questions, I would comment, and I would take over and like...kind of…said what I thought and then people would comment on what I said." In addition, Weston stated he was, "asking others if they need anything." Finally, Ashley explained, "I like asked a lot of questions that kept the conversation going and tried to keep the group on track." All three individuals commented and asked questions during the discussions. The teacher observation and the exit tickets indicated they also were a part of on-topic statements and participation during all five weeks of the intervention. In David's interview, he acknowledged Ashley as a leader, because she was the one "mainly speaking." According to the students, the components of a leader in the discussions were the individual ensured everyone was participating as well as speaking

and commenting. These leaders did not emerge until Week 3 when the students were placed in the small group.

Increase of Contentment. During the interviews, the students expressed the level of contentment during the small group setting. Some students felt more comfortable speaking because there were less people. Ivy acknowledged, "I just learned that I have to force myself to talk in smaller group. There are less people to keep the conversation going." Becca also had a similar opinion, "That when we are in the small groups, I like sharing my points. Because when we are in the small groups there is more opportunities to talk because there are less people." They liked the closeness of the group and felt less intimidated because there were fewer members. Daniella added that she "talked more in the small group." Becca and Ivy did participate in all of the weeks of the intervention, but the number of comments increased during those small group weeks. Daniella did not speak at all during a whole group week, and slowly began to speak more during the small group weeks. Gary also realized the whole group was not as comfortable, "it was quieter in the whole group than in the small. In the whole group people did not have as much to share. Probably people were less comfortable and not enough research." The students enjoyed the more intimate setting of the small group. They were not as afraid or intimidated by the number of individuals. They began to create a bound with their small group and trust formed. Looking at the exit tickets and observations, the students were more engaged and taking part during that first week of small group discussions.

Analyzing the interviews provided me with valuable information about the students and their opinions of the discussions. These skills are needed in academics, but they are also life skills that the student will use outside of school. They can apply these

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newly acquired talents to their continued education or career. If they do not understand a topic or need to find new information, they have the strategies to find accurate information. They have built confidence and strength to discuss in a small group and have their ideas and opinions heard. After an activity or job, the students reflected on what they learned and what they could do next time to improve themselves. Leadership skills were developed as well as improved on how to work with peers and work together to complete a task. Then finally, the students found pleasure in working in small groups and building relationships with one another. Each of these skills are essential in the classroom to be an accomplished student, however it also teaches students to be a successful part of the community.

Discussions

The student-led discussions that took place over the five weeks revealed that the students grew in specific areas. The major themes that emerged during the discussions were*: (a) identifying and articulating connections within a text, (b) defining unfamiliar words from context and background, (c) analyzing text to form text-to-world connections, (d) conforming to group norms and expectations, and (e) growth and expanded peer communication.*

Identifying and Articulating Connections within a Text. When analyzing the transcript from the discussions, I discovered the students displayed the standards that were assessed in the pre-and post-assessment. The first standard was *Analyze the Interactions between Individuals, Events, and Ideas in a Text* (RI 7.3). The conversation between Ivy and Greyson showed their mastery of the standard. Ivy questioned, "It was

how was the outbreaks handled? How did they handle them or control them?" Then Greyson responded:

> I think people are very cautious about this and start to keep themselves safe by maybe like maybe like using hand sanitizer or sanitation or hand washing and keeping great distances from each other, so they won't also get sick.

The two students were able to connect the poor sanitation to the disease outbreak in the community. Becca displayed her ability to be able to show interactions when she stated, "Did they have like vaccines? Definitely in India cuz if they had vaccines why would there be another outbreak if people got vaccines." She connected the idea of vaccines and the events of the outbreak. On Becca's post-assessment score, she scored 100%. She was able to show how ideas and events interact and how it affected people during an outbreak. Brittany, who always scored a perfect score on her post-assessment, analyzed how if people ignored the situation, there could be dangerous results. She explained, "Don't those people still have it and know what is going on like there is a bigger pandemic connected to it." Brittany, a Black student, is able to show her true understanding of this standard and her critical thinking skills. Both Brittany and Becca were able to display their capability to analyze the interactions between people, events, and ideas. During the discussions, the students had the opportunity to discuss how different ideas about the epidemic resulted in the events that occurred because of those social ideas and beliefs.

Defining Unfamiliar Words from Context and Background. The discussions allowed students to discuss vocabulary words that were unfamiliar. In Week 1, the whole group discussed the word *pneumonic*. We discussed what words were similar to

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pneumonic. Ivy discovered, "pneumonia." Then the students connected it to that particular illness. Brittany stated, "It affected the lungs the most or more harshly." The students discovered the meaning of the unfamiliar word by making connections to similar words. In Week 3, Brittany and Weston conversed about the word, *vibrio cholerae.* Weston questioned, "I don't know what that is." Brittany responded, "It is the…mmm…yeah the bacteria that causes that causes…uhhh…the bacteria that causes cholera." The students questioned each other about vocabulary words and then discussed what they thought was the definition.

Another strategy was using context clues around the word to determine the meaning. Becca, Weston, and Brittany used a familiar word to figure out the definition. Becca asked, "A new question I had is what is oh at the beginning it was talking about a domestic mosquito, and I don't know what that is." Weston responded, "I have no idea." Brittany stated, "I feel like domestic mosquitoes are like." Weston continued, "like a cat." Using context clues was a strategy assessed in both assessments. Weston and Brittany scored 100% on their post-assessment, while Becca scored a 75%. This discrepancy could have resulted from the discussion of vocabulary.

The more opportunities the students had to discuss unfamiliar words and use context clue strategies, the better they performed on their assessment. Both David and Leon did not ask about any vocabulary words and in addition did not respond to their peers asking about unfamiliar words. Leon, an English Language Learner, struggled with vocabulary in the pre-assessment, and may not have wanted to indicate this challenge to his peers. The more students asked and inquired about unfamiliar words, the more their

context clues skill strengthened. When a student reads a word and does not know the meaning, they should be looking for the definition, and not just skipping over the word.

      Analyzing Text to form Text-to-World Connections. During the discussion, the students linked their knowledge of the past disease outbreak to COVID-19, the epidemic that they were currently living through in 2021. This type of connecting and analyzing indicated a higher level of thinking. Ashley made this connection of symptoms between Spanish Influenza and COVID-19. She stated, "It attacked. It attacked the respiratory system, and it was highly contagious and that also relates to COVID because COVID…uh…mostly attacks the respiratory system." This type of critical thinking required multiple steps because Ashley first identified the symptoms of the epidemic and then connected them to COVID's symptoms. David also linked symptoms from the Black Death to COVID during the whole group discussion. I asked, "Think of what disease do we have today that affects our lungs? Do you know? Older people get it usually." David then responded, "COVID." David was not one to participate much during the whole group discussion, or when he did, he was making off-topic statements. This comment indicated he understood and could connect the two epidemics.

      Courtney also made the connection between Cholera and COVID. She explained, "My connection was it spreads fast as COVID did and then also my other connection was that everything is most common found in Africa. With how Cholera was mostly found in Africa and right?" This connection indicated she was able to reflect on Cholera and the rapidness of the disease. Then she pondered COVID and what happened in the world during that period. She finally linked the two diseases and the impact of spread. Hearing the students' comments during the discussion made me reflect on the students' critical

thinking skills and how they were able to collaborate on real world events as well as epidemics throughout history.

Conforming to Group Norms and Expectations. When reading through the transcriptions, I noted there were times when students needed to remind other students to stay on-topic or focus. There were students throughout the intervention that commented on their peers' ideas with off the topic statements. Toby and David messed around. In Week 3, Toby asked a question, "What do the words I highlighted mean?" and David then responded by laughing at the remark. It occurred again in Week 4. At the beginning of the discussion, Toby remarked, "My arms hurt. I can't read." Which then resulted in David laughing again. Finally, in Week 5, his behavior continued and affected more group members. Toby said, "You have not said anything Daniella." David responded back, "That is false. False advertisement." Which resulted in Daniella laughing at the comment. This misbehavior was also reflected in the observation sheets and the exit tickets. Daniella and Toby discussed they were not following the expectations, but David did not reflect on it. He did not see that laughing to the comments was a distraction.

As the weeks progressed, this particular group struggled more with expectations and not fooling around. In Becca, Brittany, Weston, and Leon's group, they built more of a community and felt more secure to talk. In Week 3, Brittany and Weston were mocking each other. For example, Weston responded, "Yeah" at Brittany's comment. Brittany stated back, "Yeah" which resulted in Weston saying, "Mmmmm." Then Brittany replied, "I don't have any connections." In Week 5, there was no mockery, and the conversation felt more relaxed and comfortable as shown in the following conversation between Brittany and Weston"

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- Weston: "I also had it is considered the most deadliest pandemics so I didn't know it was going to be that deadly since it was just influenza."

- Brittany: "And it only lasted for like two years."

- Weston: "Yeah."

- Brittany: "But it was like a lot of people. I wonder who the first person was."

- Weston: "I tried I looked it up and I couldn't find."

This showed the growth between the groups and their relationship. Leon and Greyson, because of their cultural background, were both respectful and had no off-topic comments. They were respectful during all the discussions. One group continued to struggle with the behavior aspect and to stay focused during the discussion, and another group developed as a group and built a sense of community between those individuals.

Growth and Expanded Peer Communication. As the intervention progressed, I noticed the students were building on each other's comments in more detail instead of a one-word answer. In Week 1, I needed to prompt the students to elaborate on their responses such as

- Hefel: "Yup. Pneumonia. Does pneumonia look like this word?"

- Becca: "Yes."

- Hefel: "Bubonic? What do you think that is? What word is after bubonic? Weston?"

- Weston: "Clotting"

- Hefel: "What do you think clotting is? Does anyone know what clotting is? What do you got, Gary?"

- Gary: "Blood Clots"

The students only provided me with one- or two-word answers to the discussions, which resulted in me asking more questions to understand their thinking. By Week 5, the students were expanding on their responses as well as building off their peer's ideas. For example,

- Weston: "Alright…mmm…I heard there is a vaccine for the virus, and it is not as deadly for today. Hong Kong virus is considered to be a strain of the seasonal influenza. So, it is still there is going to have to be a new vaccine year after year."

- Brittany: "Now that I think about it. You said that it is similar to the common flu. It could honestly reappear again. Imagine if it reappeared while we are still in COVID."

- Weston: "I also had it is considered the most deadliest pandemics so I didn't know it was going to be that deadly since it was just influenza."

- Brittany: "And it only lasted for like two years."

- Weston: "Yeah."

- Brittany: "But it was like a lot of people. I wonder who the first person was."

- Weston: "I tried. I looked it up and I couldn't find it."

- Brittany: "I can't believe it. Honestly, I feel like this is really interesting and there is more about it, but nobody really documented it as much as they should have. Honestly nobody studied it as much as they should have so there is not much information about it now because it would pop back up to this day. Honestly we would be screwed."

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The responses to each other's questions expanded and the students discussed what they read through the lens of their own ideas and opinions. Brittany again shows her understanding and advanced thinking in contrast to predetermined judgements. The students communicated this in the small group discussions and learned from one another.

When analyzing the discussions and listening to the participants' responses, these discussions had an impact. These skills were centered around academics and thinking critically about topics. During the discussions, the students made connections within a text. The students explained how different events and ideas during the epidemic compared to one another. They also recognized the importance of defining unfamiliar words. Using context clues and resources helped identify these particular words, which resulted in a better understanding of the text. During text to world connections, the students synthesized their ideas and then related them to personal experiences about the pandemic they are living through currently. Following expectations was a skill students needed to have to be successful in the classroom, and the students recognized the importance of these norms during the discussions. Its success depended on the students' behaviors.

Finally, peer communication was addressed. During lessons, students shared their ideas and opinions with the class. The students identified the impact of building from each other's comments and how to keep a discussion going. The interviews also required the students to reflect on their experiences during the discussions as a whole. They identified what their strengthens were as well as their struggles. They also reflected on their leadership skills and those of peers. The discussions allowed me as the researcher to

listen carefully to each student's comments and ideas and reflect on the influence of these on the students' academics and behaviors.

Exit Ticket and Observation Sheets

The exit ticket was used as a self-reflection form for the student. It asked the students if they participated in the discussion and if they learned any new information from the discussion. The discussions focused on different epidemics: Black Plague, Yellow Fever, Cholera, Typhoid, and one epidemic of their group's choosing. After every weekly discussion, the students were given time to complete the exit ticket on the Microsoft Form application. They were provided with ample time in class to complete the form; in addition, they were reminded that they were to take their time with their responses. If the student was absent from the discussion, the exit ticket was not completed. The ticket had two sections: a yes/no and a written response. Breaking up the yes/no questions and the written responses allowed me to analyze all sections more closely including how the students answered each individual question.

I used the observation sheets as a data source during the student-led discussions. The sheets focused on four areas: on-topic statements, participation, asking others to join the discussion, and clarifying questions. These observation sheets were completed either during the discussion (Weeks 1 and 2) or after the discussion (Weeks 3, 4 and 5). Since Weeks 3, 4, and 5 were small group discussions and I was not able to listen to all three groups at once, I needed to record the discussions using audio tapes. During Week 1 and Week 2, I was actively listening to the discussions, because it was one whole group. Then during Week 3, Week 4, and Week 5, I taped the discussions. The audio tapes were beneficial, since I was not able to listen to all the small groups at the same time. When

analyzing the results, I combined both the observation sheets and the exit tickets, because the exit tickets aligned with the observations from the sheets. I wanted to detect if there were any connections with how the student felt they did in the discussion and what I had observed.

During the intervention, the discussions were scaffolded in hopes of having the students feel more comfortable and willing to share their ideas as the week progressed. In Week 1, all of the participants were in a whole group, where I (the teacher) led the discussions. They had previously read an article about an epidemic, and they were to write unknown vocabulary words, questions, and any interesting facts. I asked one participant to read something from their notes and then instructed the other peers to build on that fact. In Week 2, we stayed in a whole group, but I gave more control to the students. The students were to lead the discussion and share what they had written from notes. I did not ask any questions or ask individuals to share. It was up to the students to lead the discussion. In Week 3, the students were broken up into three groups of four students. I provided them with guiding questions that centered around vocabulary, interesting facts, and clarifying questions. This provided them with an outline in case they got stuck or no one said anything. In Week 4, the students were still in their small groups, but I did not provide them with any teacher questions. They were on their own. In the final week, Week 5, the students chose their own epidemic they wanted to research and then shared their findings. This was all independent and I (the teacher) did not assist in the discussion or the researching. The scaffolding process allowed the students to have gradual control over the discussion.

Figure 4.1 shows the results of the participation question. The figure is broken into the week and whether the student participated in that week's discussion.

Did you participate in the discussion?

Week 1: 10; Week 2: 12; Week 3: 7; Week 4: 12; Week 5: 12

| WEEK 1 | WEEK 2 | WEEK 3 | WEEK 4 | WEEK 5 |

Figure 4.1. Exit Ticket- Participate Question

Figure 4.1 shows many of the students participated in the discussion each week. There was a decrease in participation in Week 3. This may have been a result of it being the first time that the students were in their small groups, and they did not have a teacher with them to assist. In Week 3, the quieter students could not depend on the more vocal peers, because there were only four students instead of 12, like in Week 1 and Week 2. In bigger discussion groups, there are more individuals who can speak about the topic and students could easily let vocal students take over the conversation while they just watched and listened. In Week 3, they needed to be more independent with leading the discussion and asking questions. They could not just rely on one leader to take charge. They had to contribute to the discussion, which they realized in Week 4 because there

was 100% participation. By the end of the intervention, every student was participating and contributing to the discussion.

Figure 4.2 displays the results from the observation sheets focusing on how many times the students were speaking. When listening to the students, I tallied how many times a student made an on-topic comment about the topic.
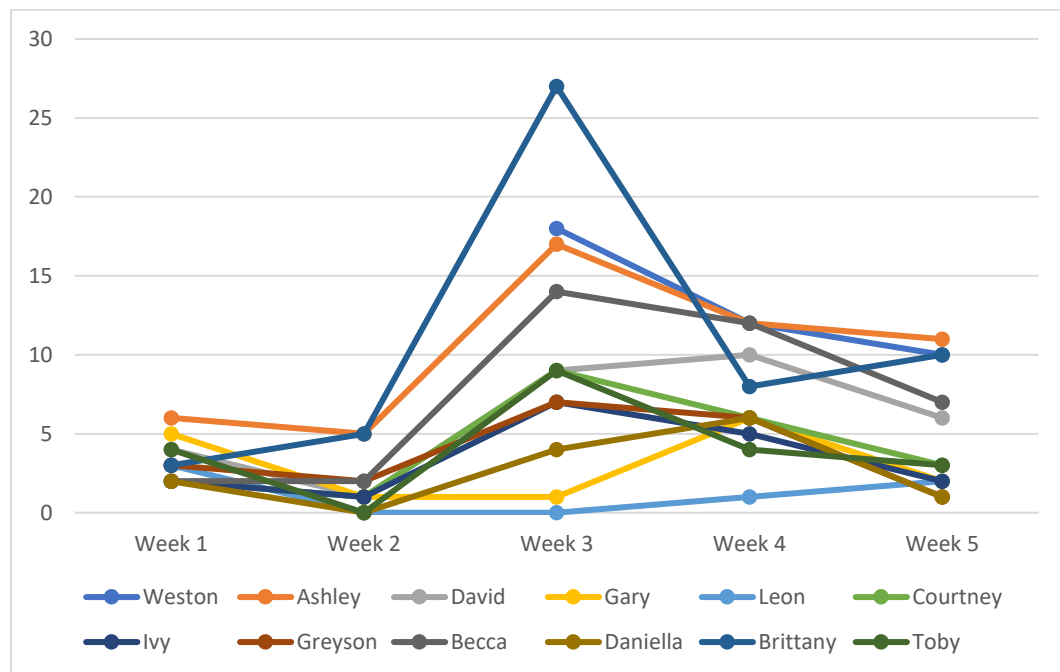

Figure 4.2. Observation Sheet- Times Student Spoke during the Discussion

The results shown in this figure indicates a rise during Week 3 of the intervention and a low point in Week 2. The students that had the highest amount of participation were Ashley, Brittany, and Weston. They were the leaders of the group and helped the conversation to continue rather than simply having everyone read their notes. They made comments about someone else's statement and encouraged everyone to say their thoughts before moving on to the next statement. For example, In Week 2, Brittany stated that "Typhoid spreads through contaminated food and water." Ashley then made the

connection with the Black Plague saying, "The Black Plague also spread in a similar way." The rise in Week 3 was surprising, because this was the week where students were in their small groups for the first time. Tuckman (1965) described this as the first stage of group formation. The students were excited about the independence they were given as well as the opportunity to discuss in a smaller setting. They did not have the teacher's support. The amount of talking from an individual does connect with their passion for the topic. If a student does not like or enjoy the topic we are discussing, they will be less likely to discuss and share their thoughts (Zwiers & Crawford, 2011).

The amount of speaking could depend on the epidemic topic that was discussed during those weeks. Week 2's topic was typhoid and Week 3's topic was cholera. Then after Week 3, the amount of talking declined each week. As I was listening to the tapes, I noticed growth in the students and their responses. The students were not just saying one comment and then moving to the next student, they were saying multiple-sentence comments or explaining connections that were 30 seconds long. For example, in Week 5 Brittany states:

> I can't believe it. Honestly, I feel like this is really interesting and there is more about it, but nobody really documented it as much as they should have. Honestly, nobody studied it as much as they should have so there is not much information about it now because it would pop back up to this day. Honestly, we would be screwed.

The average amount of speaking might have gone down, but in listening to their conversations I noticed that their comments were beginning to be more in-depth and thought-provoking instead of simply basic one-sentence statements. This could be due to

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the students building knowledge about the different diseases and pandemics they were discussing.

A comparison of Figure 4.1 and Figure 4.2 show there was a dip in the students' participation in Week 3 of the student's reflection, but a rise in the number of students talking in the same week. This meant there were fewer students who were talking, but those students were the ones who were talking the most during this discussion. During this first week of small group discussions, leaders were emerging who led the conversation and tried to keep it going. Ivy, Brittany, and Ashley were the leaders who talked the most and encouraged others to speak as well.

Figure 4.3 displays the results from the exit ticket about commenting on a peer's idea. This question asked if the student was able to build on a peer's thought and continue the discussion instead of everyone just reading from their notes.

Figure 4.3. Exit Ticket- Commenting Question

Looking at the Figure, there was a dip on Week 3, and then a rise towards the end of the intervention. More students were beginning to comment on each other's ideas. The students were not just reading off their note sheets. The students were not simply having

one student read all their notes, then the next person in the group read all their notes and continue until everyone had read all their notes from their sheet. They continued the conversation and stayed on-topic. They conversed and commented on each other's ideas. When listening to the audio tapes, in Week 1, if a group member stated the king during the Black Plague was Charles II, all of the group members would discuss Charles II and add information that they have found out about the king. When there was nothing else to state, they would move on to the next topic about the Black Plague. The discussions were similar to a conversation in the flow of communication and reflection on what others stated. At the end of the intervention, the conversations were more fluid and not just random facts spoken out as see in Week 5:

- Brittany stated, "And not only that, but the Hong Kong Flu was a pandemic itself. So, the pandemic that killed over 1 million."

- Becca continued, "On top of another pandemic."

- Brittany added, "On top of another pandemic that has also killed over 1 million people would end everything."

- Weston said, "I am just surprised that they didn't change the name after it went worldwide."

- Becca concluded, "Yeah. They probably didn't change the name because that is where it started."

Week 5 had one less participator commenting. This had been because the group picked an epidemic to research and discuss. This was challenging since one group did not agree on a specific epidemic and Brittany ended up just choosing the epidemic for their group. When a student is not passionate about a topic or if they have a negative mindset

due to another taking charge, they may shut down and not want to discuss. This could have happened in this particular case, resulting in lower participation in Week 5. Feeling comfortable enough to comment was another factor that affected why some students did not speak up and comment on their peers' ideas and opinions.

Figure 4.4 displays the results from the observation sheets focusing on clarifying questions. When listening to the students, I noted if the student asked a question to ensure they understood what the speaker had said.
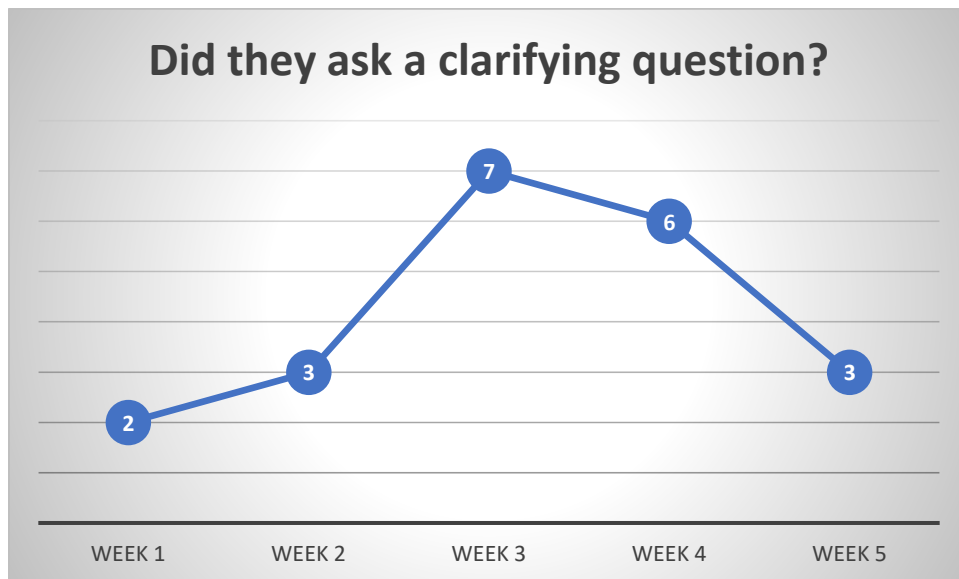

Figure 4.4. Observation Sheet- Students that Asked a Clarifying Question

This figure shows there was rise in Week 3 of the intervention. Seven students asked a clarifying question. That is a high number of students that asked their peers what they meant by a statement. Week 4 was also high with six students asking a clarifying question. There were not many questions being asked the first two weeks of the intervention. This could have been because the students were not comfortable enough to ask a peer to rephrase a statement or to ask them to expand on what they had just said.

The students needed to know that they were in a safe place. Some students felt they were being targeted because of their comment, when the other student was simply trying to encourage them to continue with their comment or to make sure there was no misunderstandings. I would have thought by the end of the intervention on Week 5 that would have been the highest number of clarifying questions, but it was as low as Week 2's. This low result in Week 5 could have been because the students all researched the same epidemic and had similar information. They already knew what others were talking about because they had investigated it thoroughly as well.

Another reason could have been the students were getting bored of talking about different epidemics. After five weeks of talking about epidemics, they felt they already knew everything they needed to know and there was nothing else to expand on. The skill of asking clarifying questions is essential in a discussion because it does ensure there are no misunderstandings between students and what they have stated during the conversation.

Both Leon and Greyson did ask questions, but they were only asked when probed by another student. Brittany asked Leon, "What do you think about this?" or "Do you have any facts you want to share?" Courtney asked the same questions to Greyson ensuring that the group heard his thoughts as well. If neither of them were prompted by their peers, they would have not shared their inquiries.

Looking at Figure 4.3 and Figure 4.4, there was a dip in the students' response of comments to others, but a rise in asking clarifying questions during Week 3. The students were in their small groups for the first time and were unsure of what to say to one another as well as being nervous. In addition to the anxiety, they wanted to make sure they

understood what their peers were saying and continued to build the community where students felt safe to share their thoughts and not be misunderstood.

Figure 4.5 displays the results of students following the expectations of discussion. The expectations were not interrupting and being respectful when someone was talking.
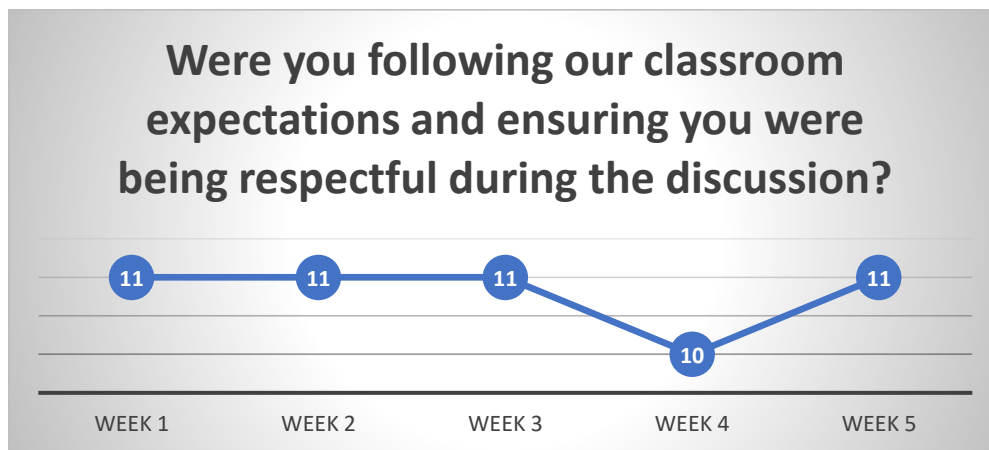

Figure 4.5. Exit Ticket- Expectations Question

Looking at these results, the students were respectful during the discussion. Respectful meant not interrupting one another, not putting down or making fun of other students because of their opinions and being mindful of and acknowledging differences. The students knew they were safe to say their opinions without being ridiculed for them. It does take time to trust others and to know the peers in the group would not tease because an individual had a different thought or opinion. The students also understood the classroom was a community. In Week 1, we discussed what a community was and stressed the importance of it during the discussion. A community meant they had each other's best interest in mind, and it was a place where students were safe to be themselves. Each week, except for Week 3, there was one individual who was not

demonstrating respect and community in the discussion group. In Week 3, there were two individuals. Looking at the individual exit tickets, it was the same person who was not following the expectations during the discussions. Listening to the audio of the discussions, Toby struggled mostly with blurting out. He was not rude to his group members and did not ridicule them. He interrupted when someone else was speaking or he said an off-topic statement, which caused the group members to prompt him to focus on the specific topic. Ashley showed great leadership skills in their group, because she was able to notice his off-task behavior and helped support him in his struggles.

Figure 4.6 displays the results from the observation sheets focusing on on-topic statements. When listening to the students, I noted if the student was on-topic and focused during the discussion or if they were making statements that did not relate to the provided topic.
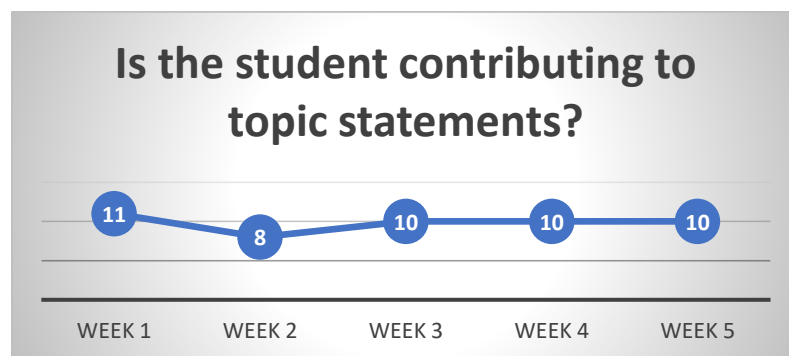

Figure 4.6. Observation Sheet- On-Topic Statements

The figure shows many students did stay on-topic during the discussion. Each week, there were students that did not stay focused on the provided topic. The highest rate was Week 1 with only one person not staying on-topic. The lowest week was Week 2 with three students who did not stay focused. Daniella was one of the students who did

not stay on-topic. In observing her in the classroom, I noticed she got distracted very easily by peers. In Week 4, she made comments when discussing diseases, "This sounds like fun. I want to catch it. Get it. Can someone get me this? Give it to me." The only week that she stayed on topic was during Week 2's discussions. All the other weeks she did not stay on-topic and tried to get others off task.

Toby also struggled with this task. He was not focused on Week 2, Week 4, and Week 5. Toby's and Daniella's behavioral actions got in the way of their learning. If they were not staying on-topic, they were not following the expectations of the discussion. Daniella was honest in her response in her exit ticket that she was not respectful during the discussion except for Week 3 she answered "yes." Toby's struggle was trying to get others to talk about a different topic. Toby was honest on his exit ticket responses about following expectations. His reflection on his skills mirrored those I saw during the observation. Middle school students can easily be distracted by a small off-topic comment that can then impact the conversation completely. Despite these distractions, many of the students were concentrated and engaged on the topic during the discussion.

Both Figure 4.5 and Figure 4.6 had high numbers reflecting students were contributing to the discussion as well as following expectations. If the student was being disrespectful and saying off-topic statements, they were not following the expectations and norms of the discussion. Both students as well as I noticed there were on-topic discussions as well as students being respectful.

Figure 4.7 displays the results from the observation sheets focusing on asking a peer to join the discussion. When listening to the students, I noted many students were

not talking during the discussion. I tallied how many times a student would ask a peer to join the discussion and to hear their thoughts about the topic.

Figure 4.7. Observation Sheet- Joining the Conversation

This figure shows a rise in students asking a peer to join the conversation and to share their thoughts and opinions about the topic that was being discussed. This indicated the students recognized when others were not participating and wanted them to join in with the discussion. During Week 1 and Week 2, which was when all the students were together during the whole group discussion, this did not occur, but once the students were in their small groups of four, the students began to notice when their peers were not sharing out. This showed students wanted to hear all of their peers' thoughts and opinions about the topic. They wanted everyone to feel included in the discussion. The students that asked their peers to join the conversation were Ashley, Courtney, Toby, David, and Weston. Ashley was the student that asked a peer in this small group to join all three of those weeks. She was growing as a leader, because she was also an individual who asked clarifying questions to help continue the discussion. All five of those individuals were respectful when asking their peers if they wanted to share their thoughts or opinions. They did not yell or ridicule them for not participating; they simply asked, "Do you have anything you would like to add?" Weeks 2 and 3 were more about learning the norms and

conversation skills. Asking others to join to the discussions showed these students tried to build a community where all thoughts and opinions were accepted and valued.

Figure 4.8 displays if the students learned something new from the discussion. This was taken from the exit ticket.
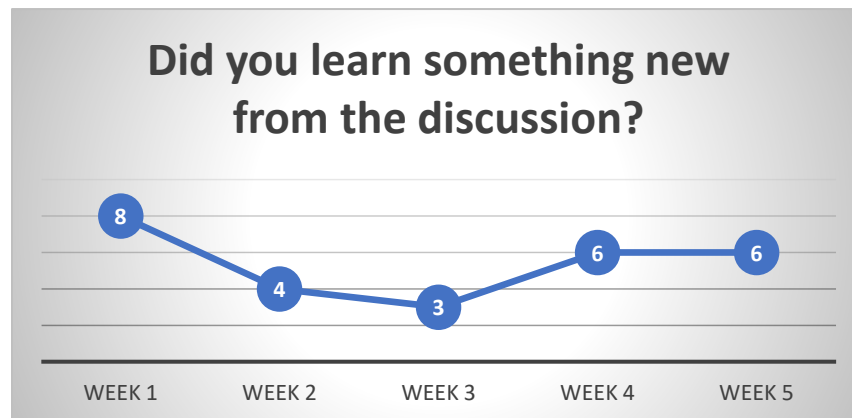

Figure 4.8. Exit Ticket- Learn Question

This category fluctuated throughout the weeks of the intervention. The highest week was at the beginning of the intervention. The students were just beginning to learn about epidemics. Week 1's topic was the Black Plague. Many of them found this interesting due to the rats and the spreading of the disease. Then, Weeks 2 and 3 had a low learning rate. The students stated that they did not learn anything new. This was surprising considering many of the students did not know about these specific epidemics before reading the text. The low response rate could also be because the students knew they would be required to write out their answer in the next question. They felt unmotivated and did not want to write their ideas.

With my experience in middle school, many of the students rush through and prefer to do the bare minimum. This occurred even though I reminded them to take their

time and that they did not need to rush because they were given ample time to complete it. After the lowest rate in Week 3, the numbers began to rise, which was what I was hoping for: more students writing what they learned from the discussions. I feel this rise occurred because the students were beginning to feel more comfortable with the discussions. They also became more familiar with their peers in the intervention. The students understood this was a safe place for them to share their opinions without fear of judgement. This question showed what the students were learning and take-aways from the discussions. Were students comprehending and expanding their knowledge of the epidemic from these discussions? The results from the exit ticket showed the students were beginning to participate more as the intervention went on, as well as building on peers' comments and responses.

The second section of the exit ticket were the written responses. The first written response question was if the students checked that they learned something new, they were to write what they learned. Table 4.4 has the students' written responses from what they learned. It is broken up by each week. I have not changed the students' spelling or grammar mistakes.

Table 4.4. Exit Ticket- What the Students Learned from the Discussion

Week	Response From What the Students Learned from the Week
1	• The king during the black plague was Charles the 2nd • I learned what bubonic and pneumonic were. • The Kings name was Charles the 2nd • the kings name was Charles • The Black death was spreading as fast as Covid did • I learned who the king was during the time • I learned that their was probably heathy carriers back then that carried the plague with out knowing it. • i learned that black boils are black spots on the skin. And what pneumonic and bubonic was.
2	• They did not have cholera vaccines since around 2000s. They vaccines also wear off throughout time. • The 1st Three cholera events was in India • That they never found out the real explanation on how cholera started • How long the cholera started
3	• That it is a life threatening virus • Typhoid being dangerous • The types of bacteria's and that animals cant get typhoid
4	• When you are fist born your skin could possibly turn yellow. • Yellow Fever was mostly in Africa and Jaundice is a thing that makes your eyes and skin Yellow • I learned that china has a lot of people living there • I learned that mosquitos can cause diseases other than yellow foever • That there is no cure
5	• The Hong Kong case lasts 2 weeks and the man who made the vaccine produced over 9 million doses. • I learned that the first known case in the U.S. was in a military base. • The One who made the Hong Kong Vaccine was Maurice Hielman • I learned that most of the Athens after the plague where not originally from Athens • I learned that I came back again whitch i thought it did not come back after the first time what the four fazes were called

When looking at the written responses on what the students learned during the discussion, I realized the responses focused on facts about the epidemic. Week 1 had eight responses; many of them focused on the king or symptoms. The response that stuck out was Leon's response, "The Black death was spreading as fast as Covid did." First, he

remembered that the Black Plague was spreading quickly, but the more critical thinking component was that he connected it to personal experiences and what was happening in the world at that moment. He was not just remembering facts or information; he was able to analyze and compare an event in the past to a current event. The students were not simply reading and stating new information. The students were building on one another's ideas and relating it to their lives. They shared those experiences within the group.

Week 3 had the fewest written responses. This may have been a result of the students being put into their small group for the first time. In the final two weeks, there were five written responses. The students were becoming more comfortable with the written response question and more willing to take the time to write what they learned. In Week 5, the group chose their epidemic that they wanted to study. They had never read about it prior to the intervention. All the participants should have written a response for this question. I am unsure why the students did not take the time to write their responses.

The second written response question was if the student had any additional comments about the discussion. Table 4.5 has the students' additional comments responses. It is broken up by each week. I have not changed the students' spelling or grammar mistakes.

Table 4.5. Exit Ticket- Any Additional Comments

Week	Responses from Any Additional Comments
1	• All went well • I think I should parcipitate more • There were a lot of people messing around that was annoying • It was fun.
2	• It's nice switching up between whole group discussion and small group discussion. • I think i need to talk more • I think that i could have maybe talked a little bit more and keep the conversation going because after i stoped the b boowten then i just ended the convo and did not keep it going
3	• I could have talked more and have more things to talk about and comment on peoples things
4	• N/A
5	• It got a little off topic but it connected in a way.

For the additional responses, there were two main patterns: self-reflection and behaviors during the discussion. For the self-reflection, the students talked about how they did during the discussions. The students wrote about what they could have done differently during the discussion in a positive manner such as talking more or asking questions. In Week 2, Courtney had a self-reflection "I think that i could have maybe talked a little bit more and keep the conversation going because after i stoped the b boowten then i just ended the convo and did not keep it going." This was impactful because she realized she needed to step up and help continue the discussion. Other students discussed how their peers acted during the discussion and if they followed expectations. In Week 1, Courtney addressed behavior by writing, "There were a lot of

people messing around that was annoying." This was the first week of the intervention. She did not write again about the behaviors of her peers. She began to focus more on her own participation. The first two weeks of the intervention, the students had more comments and self-reflection, but as the weeks went on there were few comments. This could be due to more comfortability with their peers, or they thought they could discuss these comments during our whole group reflection after their group discussions.

The exit ticket and the observation sheets had students and me reflecting on the discussions. Weston, Ashley, and Courtney emerged as leaders in their small groups. They helped their group members stay on-topic, recognizing when their peers were not contributing to the discussions, and asking them if they wanted to say something, or further the discussion. These three individuals stood out in their exit ticket responses as well as in their leadership skills of ensuring their discussion stayed focused and respectful. The students were engaged during these discussions. As the weeks progressed, the discussions became more in-depth and the students began to make more connections, especially with COVID. This connected with the research because the students were excited to discuss, and as the weeks progressed, the students were participating in a respectful manner. They were also noticing when others were not participating and invited them to share their ideas and opinions. The exit tickets and observation sheets showed the students' engagement during the discussions.

Figure 4.9 combines all the questions from the exit ticket and the observation sheets in one figure. The purpose is to show the growth of the students as a whole and what struggles still occurred at the end of the intervention.

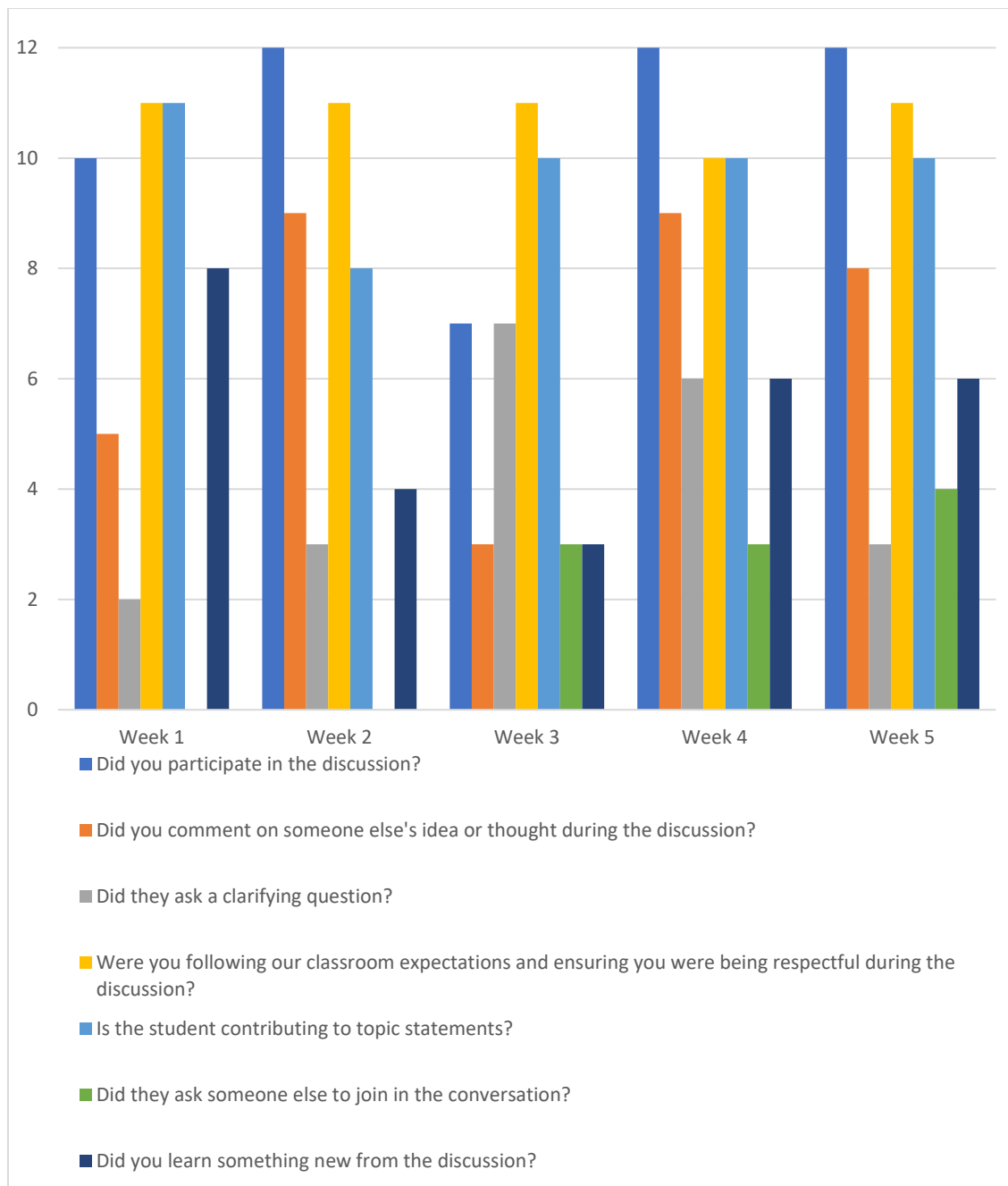*Figure 4.9.* Questions from Exit Ticket and Observation Sheets

This final figure shows there were highs and lows. For participation rate, the students started out high, dipped in Week 3, but then ended with full participation. Students were more willing to participate in the discussion and share their ideas and opinions. At the end of the intervention, the students were also building on each other's

comments, which connects with higher level thinking and relating their own thoughts to their peer's ideas. Most of the students followed expectations, which built a community and indicated heteronomous morality. Asking someone else to join also showed progress because in Week 1 and 2, there were zero students asking others to join. At the end of the intervention, the number of students that learned something new was low. Every student studied a topic they knew nothing about. Showing the data all in one figure showed there was a rise in many of the categories in Week 3, when they first began in small groups, and then slightly dipped. There was excitement of being in their own groups at first, which then a slight decrease as the intervention continued or the students realized the intervention would soon be concluding.

This exit ticket and observation data showed the impact of the student led discussions. Focusing on the two standards, *analyze interactions* and *determining meaning*, the students applied both in their discussions. The students collaborated with one another and investigated the connections between the plot, setting, and characters of the article. There was not one right answer for these questions. The students had to defend their answers with text evidence and explain why they thought that specific way. Within the student-led discussions, the students were able to hear one another's ideas and thoughts and build on those concepts. These discussions also required the students to read articles with unfamiliar words. The purpose was for the student to debate about the definitions. The discussions focused on both standards. The quantitative data from the assessments showed the students were more successful with the *analyze interactions* than the *determine meanings*. The students wrote their thoughts and then supported those

beliefs with text evidence. With the assessment scores, I identified how the students progressed with the standards during the intervention.

Triangulation

To triangulate the data, I collected prevalent themes from the six-week intervention that showed an increase in academic and life skills. The students were able to show their knowledge of both standards by first taking a pre-assessment to see where their learning was. Then, discussion transcriptions allowed me to fully understand the students and their knowledge based on the standards addressed in the pre- and post-assessments. The students discussed different interactions between events during the epidemic. They also debated unfamiliar words and their possible meanings. Finally, the students used their knowledge from the discussions to complete the post-assessment. The students increased in the ability to *analyze the interactions between individuals, events, and ideas in a text* standard. The students wrote their responses about the epidemic and discussed the interactions between the events. The student-led discussions focused on the two assessed standards. The students discussed unfamiliar words as well as relations between ideas.

The students also developed life skills through the student-led discussions. This was collected through the interviews, discussion transcriptions, observations, and exit tickets. The students improved in their communication skills and elaborated on their responses; both the discussion transcriptions and the observations indicated this improvement. The students' responses required higher level thinking. This demanded the students to think outside of the box, which was shown in the exit ticket written responses and the discussion transcription. During the discussions, the students made connections to

real-world situations due to the epidemic they are currently living through, which was indicated through the discussion transcription and exit ticket written responses. The impact of peer and self-reflection was shown in the interviews and exit tickets.

Reflection is a life skill, and the students were able to identify their strengths and struggles during the discussions. The exit tickets asked the student about their behavior as well as the interview. Leadership skills were also strengthened during this intervention. The exit tickets, discussion transcriptions, observations, and interviews all indicated students were able to stay on task, contribute successful to the discussions, and follow expectations. Students also assisted with other peers who were struggling with following the group norms and expectations. Through all the data collection among the exit tickets, observations, discussion transcriptions, interviews, and assessments, the students were able to show their understanding of the different epidemics. They were able to analyze interactions, define unfamiliar words, communicate with one another, reflect on behaviors, and become leaders within the group. These skills are essential both within and outside the classroom.

Summary

Chapter 4 analyzed and justified the data from the study. Using both quantitative and quantitative data in different forms allowed me to identify how students engaged during a discussion. Qualitative data in the forms of interviews, observations, exit tickets, and discussion transcriptions allowed me to analyze the students during the discussions as well as afterward with their personal reflections. In analyzing, patterns emerged: *analyzing text to form text-to-world connections, group norms and expectations, peer*

communication, confidence, reflection, and *leadership.* This data indicated there was increase in student engagement and how to conduct a successful discussion.

        The quantitative data centered around student academics. The students took both a pre- and post-assessment to measure their learning based on the two standards: *Connections within a Text* and *Defining Unfamiliar Words.* The students improved on identifying interactions between individuals, events, and ideas. They wrote their responses based on the reading. There was a slight increase when defining unfamiliar words, but not as strong as the former standard. At the beginning of the study, the students were taught about discussions and how to have a success and effective discussion. By the end of the six weeks, the students were engaged and willing to discuss topics in a respectful and open-minded manner. When incorporating student-led discussions, the students are engaged and collaborating with one another.

CHAPTER 5: IMPLICATIONS AND RECOMMENDATIONS

This chapter first reviews the research questions and the connection to the study. It includes an action plan and suggestions for future research. Lastly, the chapter ends with limitations of this study and final reflections about the research conducted.

Overview of the Study

Over a six-week period, I scaffolded lessons to assist students in holding a successful student-led discussion. Prior to the study, I recognized students were unengaged in the instructional lessons, which then resulted in many questions during work time due to students not listening. Twelve students participated in this intervention. During the study, the students learned how to ensure that discussions are meaningful and impactful. They debated about what should happen during this time and agreed upon group norms. Then, I scaffolded the lessons to provide students with more independence as the weeks progressed. For Weeks 1 and 2, the students were in the whole group; then for the final weeks, the students were placed in small groups of four. Each week, the students discussed a different epidemic.

The collected data came from pre- and post-assessments, exit tickets the students completed every week, teacher observation sheets, end of the intervention student interviews, and discussion transcriptions. Each instrument provided me with insights on students' thoughts about the student-led discussion and how successful the students were

in having a conversation. As the weeks progressed, I reflected on how impactful the study was and what could have been changed for next time, which will be discussed later in this chapter.

Research Questions Findings

The research questions for this study centered around student engagement and willingness to participate in the discussion. They also included reading comprehension and how these student-led discussions impacted the students' scores. In this section, I will answer each question based on the findings from Chapter 4.

- How does active participation in student-led discussion impact students' engagement as measured by their talking, asking questions, and commenting on peers' ideas?

Based on the interviews, exit tickets, observation sheets, and discussion transcriptions, these discussions seem positively to have impacted student engagement. Similar to the findings of Dykstra-Steinbrenner and Watson (2015), the students were more engaged during the discussions though talking and asking questions. Asking questions made the students think more critically about the topic and had them wondering about different scenarios within the epidemic. Rothstein and Santana (2018) also found a similar personal growth within individuals. Students became leaders within these small groups who helped ensure their peers were asking questions and participating in the discussions. Student leaders made certain everyone in the group was heard and did not let anyone feel left out; both Bryan et al. (2003) and Storch (2001) discovered this as well. Altinay (2017) and Bryan et al. (2003) found a connection between leaders and

motivating others to see the excitement in the topic, however, I did not find this connection. When analyzing the discussion transcriptions, there were students who motivated others to participate but the excitement component was absent. The number of times a student participated declined as the weeks progressed. However, at the end of the intervention the students' comments were more meaningful and impactful.

The Marshallese students, Leon and Greyson, did begin to engage more in the discussion. In the first three weeks of the intervention, he did not make any comments, but the final two weeks, he did make on-topic statements and followed the expectations the whole intervention. Greyson also started out with very few comments, but as the weeks progressed, he also began to discuss. Once the students were placed in the small group, they were more open and willing to discuss.

Students built on their communication skills and developed in elaborating on their ideas and thoughts. Pritchard and Woollard (2010) and Vygotsky (2017) also discussed the improvement of speaking skills during these discussions as well as the advantages of fostering these abilities. The students' amount of engagement was reflected in the discussion transcriptions and observations. I identified students who did comment on others' thoughts and asked clarifying questions when they did not understand the idea of a peer. Boyd and Rubin (2002) and Castek et al. (2012) also discovered the importance of asking questions and learning from peers' ideas. Student-led discussions increased student engagement during this intervention.

- How does active participation in student-led discussion impact student willingness to voice questions?

Based on interviews, exit tickets, teacher observations, and discussion transcriptions, a strong connection between active participation and asking questions does not seem to exist. Just because students were participating in the discussion did not mean that there were more questions that arose. Hulan (2010) and Rothstein and Santana (2018) discussed that asking questions puts individuals at risk of being humiliated. I did not see this vulnerability in my study.

The students created a community within their small groups and when reading the exit tickets and listening to the transcriptions, the students felt comfortable, and they were open with one another. The students felt safe enough to ask questions, but some individuals simply did not ask any questions. There was no connection between asking questions and how comfortable the students felt during the discussions with their peers. In addition, both Boyd and Rubin (2002) and Castek et al. (2012) wrote about asking questions and that as a result, the students would be more willing to share their ideas within their discussion groups. Once again, I did not notice that connection within my study. The students would participate even if they were not asking questions. I had students who would share their opinions and felt confident but did not ask one question. The students simply may not have had any inquiries about the topic since it was discussed in depth during the intervention.

The two Marshallese students, Leon and Greyson, did not increase in asking questions independently. They both needed to be prompted to ask a question to the group. This could be due to cultural upbringings, where Marshallese students do not ask a lot of questions. The student-led discussions did not impact these two students on asking questions.

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During my research, students were not asking any more questions at the beginning of the intervention than they were at the end of the intervention. The number did decrease in the middle of the intervention, but then it began to increase towards the end of the intervention. Just because students were in a small group did not mean that they would ask more questions. This is essential, because when students are inquiring, they are furthering their learning as well as learning more about their peers. In conclusion, during the study, the students were actively participating in the discussion, but it did not relate to the number of questions asked or their willingness to voice those inquiries.

- What is the impact of student-led discussions on academic achievement as measured by student reading scores?

Based on the assessment scores and the discussion transcriptions, the students who actively participated during their intervention increased in their reading scores. The individuals' academics were impacted by the student-led discussions, which is similar to the finding of Asrita and Nurhilza (2018), Bryan et al. (2003), and Ryan et al. (1998). The ability to converse with one another allows students to grow and strengthen their learning. Ballinger and Sato (2016) and Wehnam (2019) discussed silent learners and their improvement in learning. I did not find this connection in my study. The students that were not participating in the discussion did not necessarily increase in their assessment scores. Leon decreased in his scores by 30% overall. I found that just because an individual is actively listening, there is not a direct correlation to improvement in learning.

Both Daniella and Brittany, Black students, mastered the *analyze interactions* standard. This shows their critical thinking skills and higher level thinking. Brittany and

Daniella showed this improvement in the discussions and the assessments. They were able to make connections and analyze the text.

Examining the two different standards, the students excelled in one over the other. The students progressed in connecting events, ideas, and individuals within a topic. Based on the assessments, the students mastered this standard. The discussion transcriptions also supported this result because the students were discussing the interactions of the topic amongst themselves. This standard strengthened the students' critical thinking skills. Boyd and Rubin (2002) found a connection between higher level thinking and discussions, which was shown in my results as well. The students were debating about the topic and were pushed to think more deeply about their peers' ideas. Asrita and Nurhilza (2018) and Hulan (2010) both discovered the importance of critical thinking within the discussion groups.

The students continued to struggle with defining unfamiliar vocabulary words. The discussion transcriptions showed that the students were talking about unknown words, but they did not define them later in the discussion. They just stated that they did not know them. The students' reading academic achievement did increase in the standard of *analyze the interactions between individuals, events, and ideas in a text.* However, there was not a connection between the discussions and *determine the meaning of words or phrases as they are used in a text.*

Action Plan

　　With my results, I have created an action plan that will be focused on the goals I want to accomplish, improvement for next time, and how to incorporate this study into a curriculum.

Goals

　　After reflection, I have five goals I want to accomplish from my research: 1) create a professional development with teachers, 2) set up another intervention for my less engaged students, 3) follow up with previous students who have completed the intervention, 4) adapt the lessons for any content area, and 5) create a more diverse intervention group.

　　Professional Development. The data I have collected supports the importance of student-led discussions and this should be shared with other language arts teachers. When creating a professional development for teachers, I want them to feel confident when they leave the meeting. First, I will share the results from my study and then discuss the importance of scaffolding the lessons. Scaffolding helps the students feel more confident as the lessons and discussions progress. The teachers need to understand that it is not realistic to hold these discussions daily or weekly, but they can be incorporated after a chapter in a novel, a short story, or after a unit. With professional developments, the follow-up ensures the teachers have support and can ask questions if they are struggling. This professional development provides the teachers with an engaging lesson as well as builds students' communication and critical thinking skills.

Intervention Time. The student-led discussions can be available to everyone, I feel the small group setting such as the What I Need intervention was greatly beneficial for the students. Creating another WIN intervention will provide additional students with the advantages gleaned from the discussions. This intervention can occur every six weeks for the students, and it can be a rotation of individuals. This gives more students assistance with discussions, and then they can bring their newly acquired skills into the general education classroom. The small group setting allows the students to feel more comfortable with their peers and build their confidence when talking in front of others.

Follow Up with Former Participants. A long-term goal is to continue to be in contact with the intervention students as they progress throughout their schooling. This will be beneficial because I will be able to continue to collect data on how impactful the discussions were to their learning. With technology, such as their school email, the students would be able to keep in contact with me even after they have gone into high school. They could complete a short reflection form on how they are doing in their academics, information they still remember, and how it has affected their learning. As they progress through high school, my hopes are that they will come to realize the impact of these discussions and how they can also incorporate them outside of the classroom.

Adapt to All Content Areas. My final goal is to adapt these lessons and discussions to all content areas. Mathematics, social studies, science, technology, and specialists (music, physical education, and health) are all classes the students have to take as a middle schooler. I want the students to hold discussions in all of these areas. The more teachers that are having student-led discussions, the more exposed and experienced

the students will become. Planning with teachers and understanding their curriculum are requirements for the success of the discussions.

Create a More Diverse Intervention Group. Due to the time when the intervention was offered, all students were not provided with the opportunity to participate in the discussion group. Due to other interventions and music programs, the students were not available during this class period, which created a smaller sample to choose from and less diverse individuals. My original group for this intervention was not as culturally diverse as I would have like it to be. I would have liked to include more Marshallese and Black students. The Marshallese culture is more reserved and timid. They do not talk to elders unless they are spoken to first (Heine, 2004). Incorporating their traditions into the study would have allowed me to get a better grasp of their understanding and how silent learners are affected academically. Historically, Black students are underrepresented in higher level thinking courses (Nieto & Bode, 2012). Having Black students represented in an intervention group which requires deeper thinking skills would challenge the individuals as well as provide them with an opportunity to share their life experiences and culture. In this study, I had two Black and two Marshallese participants, but that is not an accurate sample of the student population in my school. Creating a different time spot for my intervention would allow more students to participate as well as create a more varied discussion group.

My goals are both short-term and long-term. I want the students to become more experienced and comfortable with discussions. I want to ensure all teachers understand how to have an effective student-led discussion as well as how to successfully incorporate it into their unit. I want to continue contact with former intervention students

who can provide me with strategies on how to improve the discussions and reflection on what has been impactful. Lastly, I want to adapt the study for all content areas, so students can continue to strengthen their social and higher-level thinking skills.

Improvements

There are some improvements I would make for the next time incorporating this intervention. The first improvement would be to video tape the students instead of only using audio. This would allow me to identify non-verbal behaviors more easily, because I would be able to view the students instead of only hearing what they are saying. The second improvement would be to switch up the topics of the discussions. The students learned a lot about epidemics, and they were able to connect them to their own lives, but with six weeks that only discussed epidemics, the students became unengaged towards the end of the intervention. Switching up the topics would allow the students to become more fascinated with the topic and keep them guessing about the next topic will be. The final improvement would be to have the students begin a reflection journal. The exit ticket only allowed the students one line of reflection. Using a journal would allow them to put their thoughts in paragraph form in hopes of inspiring a deeper reflection on their actions, peers' behaviors, and what they have learned. These three improvements would help identify individuals who are struggling with group norms more easily, increase student engagement, and enhance reflection skills.

Curriculum Map

Discussions can be incorporated into general education classes. The curriculum I used, Engage New York, is broken up into four modules. These discussions can be

included after each module to talks about the importance of what they learned or to dig deeper into the topic. The first module discussed the Lost Boys of Sudan and the Second Sudanese Civil War. During the module, the students could be broken up into discussion groups to discuss different chapters in the novel, *A Long Walk to Water* or at the end of the module where they investigate about the Lost Boys of Sudan and what their lives are like today.

The second module focuses on epidemics. Like with the first module, the discussions can be held after each chapter and discuss the epidemic that the chapter focused on or at the end of the module where students can connect all the epidemics they have learned throughout the book as well as find similarities to what they are experiencing now, living through COVID-19.

The third module is based on poetry. The students could read and analyze different poetry from a specific author and discuss the poet's style and different techniques they used. Another option is to discuss at the end of the module about all the different poetry of the Harlem Renaissance and how it connects as well as relating it to today's society.

The final module is trash and pollution. This module includes different projects, such as identifying trash within the community and school and how pollution affects our daily lives. The discussions can occur after each project because the students will be able to discuss trash and what they have learned by creating their projects. Discussions can be incorporated into this curriculum. By the end of the school year, the students should have become familiar with the procedure and expectations of the discussion.

Limitations

Within my study, I have identified three limitations: language art focused, exclusion of certain participants, and individuals of similar backgrounds. First, this study can be easily adapted to any language arts curriculum. The lessons were scaffolded and presented with a language arts focus. The students read an article and then discussed based on what they learned from the article. The discussions connected to the novel the students were reading in the general education class. The student assessments were focused on English Language Arts Common Core Standards, which related to finding interactions within a text and unfamiliar words. One of the data sources was specific to Language Arts and the standards.

Second, since the intervention took place during WIN, many of the students did not have the opportunity to participate in the study. Band, choir, orchestra, and other subject-related interventions occur during this time period. Administration did not allow me to pull students from those interventions or programs for this study. Approximately 50% of the students are in one of these options, which meant they were not a candidate for my intervention. This limitation affected the sample that I was able to choose from and the diversity as well.

Finally, since my selection pool was very limited, I did not have as diverse of a group of individuals as I would have preferred. Since the interventions were held during the same time, I missed varied characteristics of particular students such as Honors students, Blacks, students with IEPs, behavior students, Marshallese students, and auditory learners. Having these students in my intervention would have created more generalization within my study. Creating a more diverse sample would have allowed me

to break my data into diverse categories and analyze it with a cultural lens. These three limitations did limit my study in certain aspects, but they provide me with insight for the next time I complete an intervention.   These three limitations did limit my study in certain aspects, but they provided me with insight for the next time I complete an intervention.

Recommendations for Future Research

Within this research, there are recommendations I would implement for future studies. First, when analyzing the assessments, I would research the impact of short answer responses instead of multiple-choice questions. My hope is short answer questions would provide me with the students' true knowledge because it requires them to elaborate on their thinking. It makes them use higher level thinking skills because when explaining, they make connections to words that they already know and why they think in a specific way.

Second, I would implement a one-year later reflection for the former participants. Since the students are still in the same middle school, I interview them individually about how the discussion has affected their learning one year later as well as if they currently use any of the skills they learned during this time. This information shows how impactful the discussions were and how to alter them for the next time based upon what the students feel is important for their further learning.

Third, after revising the exit ticket, the students discuss the struggles and obstacles they were facing during the discussion. They focus on those challenges and if they were able to overcome them within the intervention time. For the research, the students can recognize their limitations and then which strategies they used to work

through them. This identifies why they did not participate. It may have been because they were having a rough day or because they did not feel comfortable with their group members yet. This data allows me to dig deeper into why the students were not participating and what strategies I can incorporate to motivate them to discuss.

Next, I would like to incorporate a pre-intervention where students learned about higher level questioning. The students are not just asking, "What do you think about that?" I want them to be able to ask question that have a higher development of knowledge. Students are critiquing, finding different perspectives, or hypothesizing about the topic. The students are using their critical thinking skills to ask higher thinking questions. This would have to be taught before the discussions began.

Finally, for my research, choosing a different standard to assess instead of defining unfamiliar words allows me to focus on a different learning target and skill set. Vocabulary knowledge is essential when reading a book, but with easy access to technology, I feel that there are other standards that could be assessed that require higher level thinking. Technology is continuously changing education, and I want to ensure that what I am assessing will help students strengthen both communication skills as well as life skills that they will utilize outside of the class. These recommendations will help strengthen my future research in student-led discussions.

Summary

Within this chapter, I answered my research questions, discussed an action plan, identified my limitations, and recommended strategies for future research. Student-led discussions are essential to students growing their communication skills and critical

thinking. When students are collaborating with one another, they are actively involved with the topic and engaged in what their peers are saying. During these discussions, the students are talking with each other and are immersed in the topic. They are taking control of their own learning and how the conversation continues. They are using higher level thinking to build on each other's opinions and ideas as well as connecting the topic to their own personal experiences. The students have learned the importance of respecting one another and including everyone in the discussion.

Student-led discussions positively affect student learning and increase academics on assessments. Scaffolding these discussions allows students to build their confidence in their answers in addition to building relationships with group members. The research presented in this study supports the impact student-led discussions have on students' learning and social skills. Students have grown as leaders during this time period. Toth and Sousa (2019) leave us with this thought, there is "promise and research for academic teaming to transform schools and classrooms into social, emotional, and cognitive learning environments that develop master students" (p. 131).

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APPENDIX A: CONSENT FORM

University Of South Carolina
Consent To Be A Research Subject

Key Information About This Research Study:

You are invited to volunteer for a research study conducted by Samantha Hefel. I am a doctoral candidate in the Department of Education, at the University of South Carolina. The purpose of this study is to investigate the purpose of student. You are being asked to participate in this study because you are in 7th Grade Language Arts with Samantha Hefel. This study is being done at Washington Middle School and will involve approximately 13 volunteers. The following is a short summary of this study to help you decide whether to be a part of this study. More detailed information is listed later in this form.

This study includes students learning about student led discussions and then participating and collaborating with one another. The students will be discussing a variety of text and sharing their thoughts and opinions. The students will be asked to complete reflection forms and have one individual interview with myself.

PROCEDURES:

If you agree to participate in this study, you will do the following:

Be assigned to Hefel's WIN class.

Begin discussing what a discussion is and what it looks like

Discuss texts and your thoughts and opinions about the topic

Complete reflection forms after every lesson/discussion

Have a one on one interview with Samantha Hefel to discuss how the intervention affected the individual

DURATION:

Participation in the study involves 4 classes a week over a period of 6 weeks. Each study visit will last about 30 minutes/hours.

RISKS/DISCOMFORTS:

Focus Groups:

Others in the group will hear what you say, and it is possible that they could tell someone. The researchers cannot guarantee what you say will remain completely private, but the researchers will ask that you, and all other group members, respect the privacy of everyone in the group.\

Loss of Confidentiality

There is the risk of a breach of confidentiality, despite the steps that will be taken to protect your identity. Specific safeguards to protect confidentiality are described in a separate section of this document.

BENEFITS:

Taking part in this study is not likely to benefit you personally. However, this research

may help researchers understand the importance of student led discussions and the impact on social skills and abstract thinking.

PAYMENT TO PARTICIPANTS:

You will not be paid for participating in this study.

CONFIDENTIALITY OF RECORDS:

Information obtained about you during this research study will remain confidential and released only with your written permission. Study information will be securely stored in locked files and on password-protected computers. Results of this research study may be published or presented at seminars; however, the report(s) or presentation(s) will not include your name or other identifying information about you.

RESEARCH RELATED INJURY:

In the event you are injured while participating in this research study, a member of research study team will provide first aid using available resources, and if necessary, arrange for transportation to the nearest emergency medical facility. The University of South Carolina has not set aside funds to compensate you for any injury, complication or related medical care that may arise from participation in this study. Any study-related injury should be reported to the research study team immediately.

VOLUNTARY PARTICIPATION:

Participation in this research study is voluntary. Your child is free not to participate, or to stop participating at any time, for any reason without negative consequences. In the event that he/she does withdraw from this study, the information you have already

provided will be kept in a confidential manner. If you wish to withdraw from the study, please call or email.

I have been given a chance to ask questions about this research study. These questions have been answered to my satisfaction. If I have any more questions about my participation in this study, or a study related injury, I am to contact Samantha Hefel at email shefel@dbqschools.org

Concerns about your rights as a research subject are to be directed to, Lisa Johnson, Assistant Director, Office of Research Compliance, University of South Carolina, 1600 Hampton Street, Suite 414D, Columbia, SC 29208, phone: (803) 777-6670 or email: LisaJ@mailbox.sc.edu.

I agree to participate in this study. I have been given a copy of this form for my own records.

If you wish to participate, you should sign below.

Signature of Subject / Participant   Date

Signature of Qualified Person Obtaining Consent   Date

I am a researcher from the University of South Carolina. I am working on a study about student led discussions and I would like your help. I am interested in learning more about student led discussions. Your parent/guardian has already said it is okay for you to be in the study, but it is up to you if you want to be in the study.

If you want to be in the study, you will be asked to do the following:

• Answer some written questions about a text we are reading (epidemics/pandemics)

• Meet with me individually and talk about the discussion. The talk will take about 15 minutes and will take place in my classroom.

Any information you share with me will be private. No one except me will know what your answers to the questions were. I am going to be using audio and video, I will be the only one who views these tapes.

You do not have to help with this study. Being in the study is not related to your regular class work and will not help or hurt your grades You can also drop out of the study at any time, for any reason, and you will not be in any trouble and no one will be mad at you.

Please ask any questions you would like to about the study.

*For Minors 13-17 years of age:

My participation has been explained to me, and all my questions have been answered. I am willing to participate.

Print Name of Minor   Age of Minor   Signature of Minor   Date

APPENDIX B: TEACHER OBSERVATION SHEET

Observation Sheet

Student Name	Is the student contributing on-topic statements?	How many times is the student talking?	Did they ask someone else to join the conversation?	Did they ask a clarifying question?
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

APPENDIX C: STUDENT INTERVIEW QUESTIONS

Student Interview

- What have you learned about yourself during the discussions?
    - Changes in academics?
    - Changes with peers?
    - Changes with how you feel about school?
- What have you learned about your peers during the discussion?
    - Changes in academics?
    - Changes with peers?
    - Changes with how you feel about school?
- How do you feel when sharing your thoughts and opinions during the discussion?
    - Why do you think you feel that way?
- What are your strengthens in the discussions?
    - How can you use these strengthens in the general education classroom?
- What do you need to improve during your discussion?
    - Becoming more prepared?
    - Talking more during the discussion?
    - Including others?
    - Asking questions?
- How did you ensure that everyone in the group is discussing?
- Do you consider yourself a leader in the group? Why or why not?
    - What can you do to make people feel want to participate?

APPENDIX D: PRE-ASSESSMENT

Epidemics Unit 1: Assessments Mid-Unit 1 Assessment: Analyze Structure: Patient Zero, Pages 41–44

Name: _____

Date:_____

Part I Directions: Answer the following questions.

1. Reread this excerpt from Patient Zero, and follow the prompt below. "Snow was sent to the mining town of Killingworth, where the first of the great cholera epidemics of the 19th century was devastating the population. There, he struggled for weeks to help the sick and dying, seeing firsthand the terrible conditions in which the miners were forced to work." (41)

   Select a phrase that helps the reader determine the meaning of devastating in this excerpt. (RI.7.4, L.7.4a, L.7.6)

   > A. struggled for weeks

   > B. sick and dying

   > C. seeing firsthand

   > D. terrible conditions

2. Reread the following excerpt from Patient Zero, and answer the question below. "Since the disease clearly affected the digestive system, wasn't it reasonable to assume that the 'poison' causing cholera was something that you ingested—something in food or water?" (41)

What is the meaning of ingested as it is used in this sentence? (L.7.4a)

A. took into the body through the mouth

B. laid aside without thought

C. made sure to hide from others

D. came in contact with the skin

3. This question has two parts. First, answer Part A. Then, answer Part B.

Part A Reread the following excerpt from Patient Zero, and answer the question below. "Today we realize that unhygienic conditions are a perfect breeding ground for disease, but at the time, Snow's observations were unorthodox. The medical thinking of the day held that cholera and other diseases were the result of 'miasma,' a fog of infected air rising from piles of garbage and sewage" (41). What does unorthodox most likely mean in this sentence? (RI.7.4, L.7.4a, L.7.6)

A. unhelpful

B. unreasonable

C. unusual

D. unwelcome

Part B Use a print or online dictionary. Copy the meaning of the word unorthodox as it is used in this sentence. (L.7.4c, L.7.4d, L.7.6)

4. This question has two parts. First, answer Part A. Then, answer Part B.

Part A Reread the following excerpt from Patient Zero, and follow the prompt below. "The theory of miasma seemed full of logical inconsistencies, but he had no way of knowing" (43). Complete the chart to break up the word inconsistencies into a prefix, Latin root, and suffix. You may use your affix list as a resource. (L.7.4b)

	Word Part	Meaning
Prefix		
Root		
Suffix		

Part B Use what you know about these word parts to write a definition of inconsistencies in your own words. (RI.7.4, L.7.6)

Part II Directions: Use the text to answer these questions about how Marilee Peters structures sections of chapter 2 in Patient Zero and how these sections relate to the whole and develop ideas.

5. How is the section "The Great Debate: Miasma or Germs" mainly structured? (RI.7.5)

A. by narrating stories about scientists in chronological order

B. as an explanation of the history of ideas about the causes of disease

C. as a list of definitions focused on specific diseases caused by germs or miasma

D. by contrasting John Snow's and Florence Nightingale's views of miasmas and germs

6. How is the rest of the excerpt about John Snow on pages 41–44 mainly structured? (RI.7.5)

A. as an argument about why Snow began studying medicine

B. as an examination of vocabulary that may be unfamiliar to readers

C. as a detailed description of the setting where the major events happen

D. as a presentation of Snow's argument that miasma did not cause disease

7. This question has two parts. First, answer Part A. Then, answer Part B.

Part A What key information does "The Great Debate: Miasma or Germs" on page 42 provide? (RI.7.1, RI.7.5)

A. Cholera was the first disease caused by germs.

B. Miasma was a long-lasting and widely accepted idea.

C. Nightingale's beliefs prevented her from being helpful.

D. Koch was the one who got credit for discovering germs.

Part B How does the information in this section contribute to your understanding of the rest of the text on pages 41–44? (RI.7.5)

A. by showing how John Snow first developed his ideas that led to innovations

B. by showing how understanding where words come from can help in science

C. by providing an explanation for why Snow's theory of germs was remarkable

D. by providing information about why London was the perfect place to investigate

8. How does the section "The Great Debate: Miasma or Germs" (42) add to the description of John Snow's investigation (41, 43–44) and our understanding of the significance of his ideas? Write a paragraph in which you use at least two specific pieces of evidence from the text to support your answer.

Source: Peters, Marilee. Patient Zero. Annick Press, 2014

APPENDIX E: POST-ASSESSMENT

Epidemics Unit 1: 502 Assessments End of Unit 1 Assessment: Analyze Individuals, Events, and Ideas: Patient Zero, Chapter 4

Name: _____

Date:_____

Directions: Answer the following questions.

1. How did the idea of healthy carriers influence what happened during the typhoid epidemic? (RI.3)

     A. It caused newspapers to begin using the phrase "Typhoid Mary."

     B. It explains why Mary was detained although she appeared healthy.

     C. It led officials to expand prison stays in order to keep the illness from spreading.

     D. It caused changes in the way people were trained for jobs after being released from prison.

2. What is one way the events of the typhoid epidemic changed people's ideas about disease? (RI.3)

     A. It proved that disease was not related to sanitation.

     B. It showed that disease could infect all kinds of people.

     C. It made people question epidemiologists' understanding of disease.

     D. It convinced journalists not to share information about people affected by disease.

3. Read the following sentence, and then answer the question. "From the beginning, newspapers had a field day reporting on Mary Mallon's case, and when an article in the Journal of the American Medical Association in 1908 referred to her as "Typhoid Mary," the tabloids immediately started using that name too. Before long, Typhoid Mary was a household name." How does the phrase household name contribute to the meaning of this sentence? (RI.4)

    A. by explaining how Mary got her name

    B. by showing that Mary was widely known

    C. by adding to the idea that Mary was persistent

    D. by emphasizing how upset Mary was by the coverage

4. Read the following sentence, and then answer the question. "Doctors and officials were no doubt surprised to see Mary standing up for herself so fiercely, and her behavior may have branded her as a problem case in their eyes" (92). How does the use of the word branded affect the tone of the sentence? (RI.4)

    A. by showing that Mary was proud of her behavior

    B. by emphasizing the harshness of the view people had of Mary

    C. by highlighting how Mary had no choice but to act the way she did

    D. by demonstrating that Mary was in control of opinions people spread about her

5. The author says that "people have tried to make up their minds about Mary" over the years. Below is a list of ideas, events, and individuals from the text. Choose items from the list and place them in the boxes to show how the interactions of ideas, events, and actions of individuals could lead people to the conclusion that Mary was a "victim" or a "villain."

Victim: (someone who suffers because of something bad that happens)	**Villain:** (a bad person or criminal)

- George Soper didn't treat Mary like a human when he found her (ACTION) - Mary was detained and quarantined even though other healthy carriers were not (EVENT) - Health official didn't follow up with Mary after she was (ACTION) - Mary may not have believed that she was sick (IDEA) - Health officials didn't train her to do anything else (ACTION) - Mary had no power in the society because she was a woman, servant, immigrant, and uneducated (IDEA)	

1. It is time for you to be the detective. Using several pieces of the evidence you identified in item 5 above, write a brief response that explains how the ideas, events, and actions of individuals interacted in the text to support either the view that Mary was a "villain" or that Mary's life "was ruined by an uncaring system." Be sure to use evidence from the text, and explain how these events and ideas interact to support your view. (RI.7.3)

Source: Peters, Marilee. Patient Zero. Annick Press, 2014

APPENDIX F: EXIT TICKET FOR DISCUSSION

Exit Ticket for Discussion

1. Did you participate in the discussion?

    a. Yes

    b. No

2. Did you comment on someone else's idea or thought during the discussion?

    a. Yes

    b. No

3. Were you following our classroom expectations and ensuring you were being respectful during the discussion?

    a. Yes

    b. No

4. Did you learn something new from the discussion?

    a. Yes

    b. No

5. If yes, then write what you learned?

6. Any other comments about the discussion.