THE ROLES OF MULTIPLE ADULTS:

EXAMINING THE ACTIONS AND INTERACTIONS OF MULTIPLE ADULTS IN A

CLASSROOM TO SUPPORT PRIMARY-AGED STUDENTS

A Capstone Project

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by

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APPROVAL OF THE CAPSTONE PROJECT

This capstone, *The Roles of Multiple Adults: Examining the Actions and Interactions of Multiple Adults in a Classroom to Support Primary-aged Students*, has been approved by the Graduate Faculty of the Curry School of Education and Human Development in partial fulfillment of the requirements for the degree of Doctor of Education.

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Abstract

As classrooms become more diverse, it is important to meet students' varied learning needs; however, there is a concern regarding inequities in gifted education. Specifically, underrepresentation of various populations is a persistent issue in gifted education that needs to be addressed. Rigorous curriculum is one way to foster student learning while supporting gifted and talent potential but can be challenging to implement. One solution to the challenge of implementing rigorous curriculum is by utilizing multiple adults in the same classroom. In this Capstone, I addressed a problem of practice on both a macro and micro scale aimed at gaining greater understanding of the roles of multiple adults working together in a classroom. Specifically, I explored the role of multiple adults (i.e., two teachers, parent volunteers, and a student teaching assistant) during a two-week summer intersession (SI) to support the gifted potential of primary-aged students, many from historically under-represented groups, through the implementation of a rigorous, literacy-based curriculum. I employed a single-case study design to examine the actions of and interactions between multiple adults at one site. Data collection was archival and included observations, interviews, and collected documents. Through two phases of data analysis, I arrived at research findings related to the actions and interactions of multiple adults during the intersession, and patterns related to the multiple adults and the rigorous curriculum implemented. Based on research findings, I discussed implications regarding the macro problem of practice when multiple adults are in shared classroom spaces and provided recommendations for the specific context in which this study took place.

Keywords: multiple adults, curriculum, rigorous curriculum, underrepresented populations in gifted education

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DEDICATION

To my parents, Mike and Terri, who were my first teachers and are still always teaching me; to my grandfather, Dr. Larry Kreamer, for being my educational role model; and to the other influential teachers in my life, all of whom have made me the educator I am today.

ACKNOWLEDGMENTS

Chapter 1: Introduction

Background of Problem: Inequity in Gifted Education

As today's classrooms become increasingly more diverse, both academically as well as culturally and linguistically, researchers continue to note the issue of underrepresented populations in gifted education (Baldwin, 2005; Borland & Wright, 1994; Callahan, 2005; Crepeau-Hobson & Bianco, 2011; Ford, 1998). Ford (1998) referred to the underrepresentation of minority students in gifted education as "[o]ne of the most persistent, troubling, and controversial issues in education" (p. 4). Among other barriers, Ford (1998) noted variability in the ways in which giftedness is defined, biased instruments for gifted identification, a lack of teacher training related to gifted education, and teacher conceptions of giftedness and minority students as barriers to equitable representation of underrepresented populations in gifted education. In addition to minority students (Ford, 1998), underrepresented populations in gifted education include students from low socio-economic status (SES) backgrounds (Borland & Wright, 1994; NCLB, 2001, Section 5465), twice exceptional students (Crepeau-Hobson & Bianco, 2011; NCLB, 2001, Section 5465), and English Language Learners (ELL) or those with limited proficiency in English (NCLB, 2001, Section 5465). In their study on gifted practices nationally, Callahan, Moon, and Oh (2017), referred to findings as "discouraging" (p. 41) due to the lack of alignment for underrepresented populations when comparing total student populations and students representing gifted programs.

Despite data and empirical research from national levels that depict concerning trends regarding inequities in gifted education, rigorous, or academically-challenging, curriculum can play a vital role in supporting underrepresented populations in gifted education. Although Tomlinson (2005) made clear that there is not one singular approach to curriculum development for gifted learners, she did state that "good curriculum and instruction for gifted learners begins with good curriculum and instruction—that is, curriculum and instruction that is meaning-making, rich, and high-level" (p. 160). Furthermore, she explained that good curriculum is well-paced, challenging, and provides opportunities for students to explore their passions (Tomlinson, 2005). In Hockett's (2009) work juxtaposing best practices for general education and gifted education curriculum development, she shared four aspects associated with high-quality curricula identified by experts in both fields. These included curriculum that is authentic, based off of meaningful outcomes, flexible to support different student needs, and challenging (Hockett, 2009). Callahan (2005) explained that teachers should engage in "watching how children respond to the high-level challenge of tasks that go beyond the basics to require creativity, critical thinking and analysis, complex thinking, and in-depth inquiry" (p. 102). Therefore, providing or developing rigorous curriculum, along with tools teachers need to enact said curriculum at a high level of quality, is one possible approach to providing opportunities as part of the talent development process for supporting students from underrepresented populations in gifted education. While teacher implementation of a rigorous curriculum can benefit gifted students and students with

gifted potential (e.g., Hockett, 2009; Little, 2012; Tomlinson, 2005), it must also be acknowledged that implementing a rigorous curriculum can be challenging.

Both general and gifted education curriculum specialists recommend instruction that is grounded in authentic practices or that which a professional would engage in (Hockett, 2009); however, this can pose a challenge if teachers do not have the necessary expertise to create and/or implement curriculum that has this expert focus. Wiggins and McTighe (2012) recommended that, when developing curriculum, educators should "plan to adjust" (p. 97). However, making last minute or "in the moment" adjustments to support students' different learning needs can also be a challenge. Additionally, creating and implementing high-quality, rigorous curriculum should be focused on increasing student understanding rooted in concepts with clear goals (e.g., Estes & Mintz, 2016; Tomlinson & Moon, 2013; Wiggins & McTighe, 2011), which can be a time-consuming task for teachers to undertake. Although designing and implementing rigorous curriculum may be challenging given the numerous tasks and responsibilities for which classroom teachers must be accountable, addressing the persistent issue of inequity in gifted education is of critical importance so that all students' academic needs are appropriately met. Therefore, one approach to supporting students' varied academic needs, such as in high-challenge, academically rigorous situations (Callahan, 2005), is by having multiple adults work collaboratively in the same classroom with the purpose of sharing instructional duties (e.g., Embury & Kroeger, 2012; Shaffer & Thomas-Brown, 2015; Tschida, Smith, & Fogarty, 2015).

The configuration of multiple adults in a classroom setting can take on a variety of forms and can consist of co-teachers, adult volunteers, future educators, as well as

other adults. These approaches to utilizing multiple adults in a shared classroom setting have been associated with intended benefits such as increased opportunities for collaboration (Allen, Perl, Goodson, & Sprouse, 2014; Scruggs & Mastropieri, 2017), bringing together adults with complementary areas of expertise (Cook & Friend, 1995), preparing or training pre-service teachers (PSTs) (Guise, Habib, Thiessen, & Robbins, 2017; Tschida et al., 2015), fostering home-school connections through parental involvement (Bartel, 2010; Crosnoe & Ansari, 2015; Lewis, Kim, & Bey, 2011), and adhering to legislation such as No Child Left Behind (NCLB) to better meet students' varying academic needs, including the needs of students with disabilities (Cramer & Nevin, 2006; Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010; Nichols, Dowdy, & Nichols, 2010). However, it has also been indicated that more research needs to be conducted regarding multiple adults in the classroom, including in the areas of co-teaching (Cook, McDuffie-Landrum, Oshita, & Cook, 2017; Embury & Kroeger, 2012; Friend et al., 2010), teacher education (Nevin, Thousand, & Villa, 2009), and parental involvement (Benson, Karlof, & Siperstein, 2008; Walker, Ice, Hoover-Dempsey, & Sandler, 2011).

Therefore, while having multiple adults working in the classroom may be one way to effectively implement a rigorous curriculum that could support students with gifted potential from underrepresented populations, it is clear that the phenomenon of multiple adults in a classroom setting needs further study. As such, the problem of practice of this Capstone study (i.e., examining the roles of multiple adults in a shared classroom setting) is described on both a macro and micro scale, followed by a description of the enacted study in which roles of multiple adults at one site were

critically examined. Ultimately, through this study, I sought to explore the roles of multiple adults during a two-week intersession in which a rigorous curriculum was implemented to support primary-aged students with gifted potential, many from historically under-represented groups.

<div align="center">**Problem of Practice**</div>

Macro: Utilization of Multiple Adults in the Classroom

Examining the role of multiple adults in a classroom setting is relevant to a large, macro problem of practice, or a problem that is pertinent on a national scale. There is no question that the NCLB Act of 2001 was an influential piece of educational legislation that has worked to shape the landscape of public education and education reform since its creation. The goal of the landmark act was "to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments" (NCLB, 2001, Section 1001). As such, it was stated in the law that teachers should be highly qualified, along with more rigorous requirements for paraprofessionals (Section 1119). Friend, Cook, Hurley-Chamberlain, and Shamberger (2010) cited this aspect of the law, along with more educational accountability, as reasons for an increased interest in co-teaching, hence an increase in the prevalence of multiple adults working together in classroom settings.

Friend et al. (2010) stated the intended purpose of implementing a co-teaching model is to "make it possible for students with disabilities to access the general curriculum while at the same time benefitting from specialized instructional strategies necessary to nurture their learning" (p. 11), suggesting this is an educational approach

that can be implemented to support varying learner needs. Additionally, Friend and colleagues identified the Individuals with Disabilities Education (IDEA) Act of 2004 as another reason for increased interest in co-teaching, an educational approach in which multiple adults, typically two certified classroom teachers, are in the same classroom supporting student learning. Within IDEA, it is stated that:

> the education of children with disabilities can be made more effective by—
>
> (A) having high expectations for such children and ensuring their access to the general education curriculum in the regular classroom, to the maximum extent possible, in order to—(i) meet developmental goals and, to the maximum extent possible, the challenging expectations that have been established for all children; and (ii) be prepared to lead productive and independent adult lives, to the maximum extent possible. (IDEA, 2004, USC Chapter 33, Subchapter I)

Although co-teaching is just one approach which calls for multiple adults in the classroom, Friend et al. (2010) focused on co-teaching specifically, highlighting the influences of legislation as a source of interest in utilizing co-teaching partnerships to meet the varying academic needs of students within a classroom setting. Furthermore, it has been noted in additional research that educational legislation, such as NCLB and IDEA, was a factor in increased instances of and interest in co-teaching (e.g., Embury & Kroeger, 2012; Nichols & Sheffield, 2014; Scruggs & Mastropieri, 2017). For example, Nichols, Dowdy, and Nichols (2010), stated "there is evidence to suggest that co-teaching models are being initiated to meet the mandates of NCLB" (p. 651) with the researchers suggesting that legislative compliance is a greater driver behind incorporating multiple adults in one classroom setting, rather than "for quality instruction for students with

disabilities and their non-disabled peers" (p. 651). Therefore, if there is an increased interest in co-teaching, and by extension, multiple adults in the classroom, because of the enactment of national laws like NCLB and IDEA, the response to these laws should be aimed at meeting intended goals of the law, rather than simply complying with the law.

In addition to co-teaching, which is defined and enacted in a number of different ways (e.g., Friend, 2008; Guise et al., 2017; Morton & Birky, 2015; Murawski & Lochner, 2011; Solis, Vaught, Swanson & McCulley; 2012; Weilbacher & Tilford, 2015) and is further explored in Chapter 2, there are other instances in which multiple adults can participate and collaborate in shared classroom spaces. For instance, in addition to teachers, other adults in the classroom can include volunteers, such as parents (e.g., Hornby & Witte, 2010; Lewis et al., 2011), as well as older students (e.g., Goebel, Umoja, & DeHaan, 2009; Rahill, Norman, & Tomaschek, 2017). Additionally, student teachers and PSTs (e.g., Helfrich, 2012; Tschida et al., 2015) and instructional aides or teaching assistants (TAs) (e.g., Harris & Aprile, 2015; Hughes & Valle-Riestra, 2008) can fulfill the role of being another adult in a classroom setting. The numerous examples of multiple adults working in classroom settings together have the potential to suggest this is an approach that is frequently implemented. However, there have also been numerous calls for more research regarding multiple adults in the classroom, demonstrating a need for additional studies. These calls have included a need for preparing pre-and in-service teachers to work in a classroom setting with another adult (Friend et al., 2010), additional research to examine parental involvement within classrooms and perceptions of relevant stakeholders (Hornby & Witte, 2010), and further

research "consider[ing] student work samples and performance in connection with teacher behaviors and student perceptions" (Embury & Kroeger, 2012, p. 110).

Tomlinson et al. (2003) acknowledged the growing academic diversity in classrooms and explained "most of those classrooms are ill-equipped to deal with the range of needs" (p. 136). Over the past 16 years, classrooms have grown more diverse, suggesting that the needs of students have grown as well. While having multiple adults in the same classroom at the same time has the potential to meet these varied student needs (e.g., Embury & Kroeger, 2012; Shaffer & Thomas-Brown, 2015; Tschida et al., 2015), more still needs to be learned about the actions and interactions of multiple adults and their varying roles in the classroom if they are to support student needs.

Micro: Camp Kaleidoscope and Multiple Adults

In addition to the macro problem of practice, examining the role of multiple adults in a classroom setting can also be applied on a smaller, or micro, scale. The micro problem of practice that was addressed in this Capstone study was situated within a larger research study, Project Kaleidoscope. Specifically, for this Capstone, I analyzed the roles of multiple adults (i.e., two teachers, parent volunteers, and a student-teaching assistant) involved in a two-week summer intersession (SI), Camp Kaleidoscope. The SI was designed to foster gifts and talents of primary-aged students through the implementation of a rigorous (i.e., academically-challenging) literacy-based curriculum. In conducting this study, I examined the differing roles of multiple adults involved in Camp Kaleidoscope at one site by examining their actions and interactions, as well as patterns that emerged and how they related to the daily lessons/curriculum implemented during the SI. This is an important area that warranted further study since it allowed for a greater

understanding of the various roles of multiple adults and how they functioned within the larger process of Camp Kaleidoscope.

The overarching goal of Project Kaleidoscope is to foster gifted and talented development in children with gifted potential from underrepresented populations (Moon, Brighton, & Invernizzi, 2015). In their explanation for the need for Project Kaleidoscope, Moon, Brighton, and Invernizzi (2015), cited multiple sources highlighting the need to address the issue of underrepresentation of certain populations in gifted education beginning in the primary grades. Specifically, they explained that "[h]igh potential in students from poor and cultural minority backgrounds is often masked in the early years by risk factors such as a lack of school readiness following inequitable preschool and early home experiences" (Moon et al., 2015, p. 1). This demonstrates that underrepresentation in gifted education begins in the early grades. Therefore, supports for students should be implemented during this crucial time. Furthermore, the school district with whom the Project Kaleidoscope research team is working with traditionally identifies and assesses students for gifted education and related services during second grade. While students may be identified after second grade, it is important to address potential risk factors that can hinder gifted potential from being realized as soon as possible. As such, developing a greater understanding of the presence of multiple adults during the SI could be a great asset in supporting the primary-aged camp attendees and fostering their gifted and talented potential.

Another reason for examining the role of multiple adults during the SI was related to fostering the home-school connection, one of the solutions posed by Moon et al., (2015) for addressing risk factors for students from underrepresented populations in

gifted education. As Bingham, Korth, and Marshall (2012) explained in their text on working with parents in school and at home to support students' early literacy experiences, involving parents in student literacy learning can lead to results in which "the benefit of these relationships to the children, parents, and eventually the teacher and SLP [speech language pathologist] are significant" (p. 325). Although Crosnoe and Ansari (2015), in a study on Latin American immigrant parents, noted that not all parents may realize the extent of potential benefits to their involvement, Turney and Kao (2009) claimed that "[c]hildren may benefit tremendously if schools take steps to make minority immigrant parents feel welcome at the children's school or to decrease the language or other logistical barriers that these parents face" (p. 269). This was especially relevant given Project Kaleidoscope's goal of supporting underrepresented populations which includes "individuals with limited English proficiency" as part of the Jacob K. Javits Gifted and Talented Students Education Act of 2001 intended to support equitable practices, programs, and projects in gifted education.

Finally, research findings from this Capstone study are intended to benefit future iterations of Camp Kaleidoscope since a third and final SI will be implemented in Summer 2019. This indicated a need to develop a greater understanding of the role of the various adults involved in the SI. Although a newly revised curriculum will be implemented, the same SI structure, which includes incorporating multiple adults, will be followed. By undertaking this research study, I have created recommendations for Project Kaleidoscope regarding how to support and provide guidance to multiple adults working together in the SI to more effectively support camp attendees during future iterations of Camp Kaleidoscope. Specific recommendations will be shared in the final chapter.

Together, these reasons highlight the fact that the micro problem of practice addressed in this Capstone is one of importance for Project Kaleidoscope. Specifically, through this Capstone I critically examined the actions of and interactions between and among the multiple adults (i.e., two teachers, parent volunteers, and student-teaching assistant) at one Camp Kaleidoscope school site.

Study Purpose

One of the overarching goals of Project Kaleidoscope, as previously mentioned, is to increase the number of primary-aged students identified for gifted education from underrepresented populations (Moon et al., 2015). This Capstone study was an opportunity to examine the actions and interactions of multiple adults involved in Camp Kaleidoscope serving in various roles (i.e., teachers, parent volunteers, student-teaching assistant) as they worked to support students with gifted potential through the implementation of rigorous or academically-challenging curriculum. Furthermore, because of the role of multiple adults within the structure of the SI, along with research suggesting the presence of multiple adults in classrooms is not necessarily being implemented to realize its full potential (Nichols et al., 2010), this was an area of study that warranted further exploration. As such, through this study I examined the roles of multiple adults involved during Camp Kaleidoscope as a way to gain a greater understanding of said roles as they worked with students identified as having gifted potential who represent a variety of learning needs. I did this by descriptively analyzing the actions and interactions of the multiple adults during Camp Kaleidoscope 2018, as well as investigating patterns that emerged from these data as they related to the SI lessons/curriculum. From the larger research project, I studied multiple adults involved in

the SI at one site in an effort to gain an in-depth understanding of the differing roles of these multiple adults and their actions and interactions during Camp Kaleidoscope.

Conceptual Framework

Theoretical Lens: Systems Theory

The basic concept of systems theory, the theoretical lens which guided this study, is that systems exist within a set of boundaries and are made up of inputs (von Bertalanffy, 1972; Vornberg, 2013). When various inputs interact, they undergo a process which leads to outputs (Vornberg, 2013). However, Cabrera, Colosi, and Lobdell (2008) warned that employing systems thinking alone will not lead to change. For this study, I considered various components within the system of Camp Kaleidoscope as a means of uncovering potential solutions to address the aforedescribed problem of practice.

Project Kaleidoscope: An Open System

In his work, von Bertalanffy (1972) explained that systems theory is a means for "seeing things which were previously overlooked or bypassed" (p. 424). As such, in this section I describe the conceptual framework that guided this research study as a means of gaining a greater understanding of the role of multiple adults in the classroom within the context of Camp Kaleidoscope as it is situated within systems theory. The conceptual framework is depicted in Figure 1.1 and is explained throughout the remainder of this section.

Environment: legislation (e.g., NCLB, IDEA), state and district policies (e.g., Gifted Plan, gifted policies, staffing procedures)

Boundaries

- Online PD modules
- Parent nights
- SI, including teacher training

(Open) System: Project Kaleidoscope

Inputs
- Multiple Adults
  - Two teachers
  - Parent volunteers
  - Student-teaching assistant
- Curriculum

Process: Camp Kaleidoscope
- Demonstrated by evidence in the form of data including:
  - Observations
  - Interviews
  - Document analysis

Outputs
- Description
- Analysis of description

Enacted Feedback
- Changes implemented to impact future iterations of Camp Kaleidoscope

Feedback
- Recommendations for multiple adults within Camp Kaleidoscope

Boundaries

Figure 1.1. Conceptual framework for Capstone, based off of Vornberg's (2013) "Model of open system with feedback."

Setting the parameters of the system. The open system within which this

Capstone project was situated is Project Kaleidoscope, which operates within other

systems, such as the larger system of the five treatment schools in which the Project

Kaleidoscope study is occurring. Before delving into details of the inputs which served as

the basis for this conceptual framework, system boundaries and the environment must

first be explored. Vornberg (2013) explained that "[t]he boundaries of a system set some

of the parameters of what is inside and what is outside the system; it separates the

environment from the actual system" (p. 806). Once boundaries are established, this

clearly delineates the environment which is considered to be "anything outside the

boundaries of the system that either affects the attributes of the internal components or is

changed by the social system itself" (Hoy & Miskel, 2005, p. 21).

Within the boundaries of Project Kaleidoscope is a three-pronged intervention model which includes online professional development (PD) modules, parent nights, and the SI. Therefore, while this Capstone was aimed at examining data from the SI, it was important to acknowledge all three aspects of the intervention model as being within the boundary of Project Kaleidoscope and as having the potential to influence or interact with Camp Kaleidoscope. Within this framework, the environment, or the area outside of the boundaries of this research project, includes legislation (e.g., NCLB and IDEA), as well as state and district policy (e.g., local gifted plan, gifted policies, staffing procedures). Therefore, the boundary for this framework consisted of those things which exist or occur independently of Project Kaleidoscope. While these aspects of the environment certainly shape the system within which Project Kaleidoscope exists, "[i]t is not practical nor is it feasible to take every thing into account" (Cabrera, Colosi, & Lobdell, 2008, p. 306), hence the creation of boundaries.

The system in action. The inputs that exist within the conceptual framework depicted above are directly related to the micro problem of practice that was addressed in this study. Specifically, the system inputs that were considered within this study were the multiple adults (i.e., two teachers, parent volunteers, and student-teaching assistant) acting and interacting at one Camp Kaleidoscope site and the "Once Upon a Time…" curriculum implemented during the 2018 SI. The multiple adults and curriculum interacted with one another throughout the eight-day Camp Kaleidoscope process. By collecting and examining evidence from this process through observational and interview data, along with document analysis, outputs were determined in the form of research

findings. Ultimately, this served as a means of developing a greater understanding of the Camp Kaleidoscope process as it related to multiple adults and the SI curriculum.

Potential changes to the system. When examining the process known as Camp Kaleidoscope, the final component is the role of feedback. Vornberg (2013) explained that through the examination of outputs, feedback is created which allows for "continual changes in managing and adjusting the elements to better impact results based on the goals which the design is structured to attain" (p. 809-810). As such, through a critical examination of outputs, I have provided feedback to the larger system (i.e., Project Kaleidoscope) in the form of recommendations regarding multiple adults and rigorous curriculum as part of Camp Kaleidoscope. Feedback has the potential to lead to change within a system (Vornberg, 2013); therefore, the final step of enacting feedback can allow for changes to be implemented to adjust future iterations of Camp Kaleidoscope and, if applicable, other factors (i.e., online PD modules and parent nights) within the boundary of Project Kaleidoscope. Ultimately, this step has the potential to lead to changes in future inputs, influencing future iterations of the process of Camp Kaleidoscope, as well as the larger system of Project Kaleidoscope.

Utilizing this conceptual framework has assisted me in attaining my goal for this Capstone. Specifically, I intended to examine the roles of multiple adults during Camp Kaleidoscope and identify recommendations related to multiple adults to support potentially gifted students' needs, gifts, and talents through the implementation of academically-rigorous curriculum. Therefore, this study addressed the following research questions, all of which relate to the Camp Kaleidoscope two-week Summer Intersession:

(1) What are the actions of the multiple adults?

a. Two teachers

b. Parent volunteers

c. Student-teaching assistant

(2) In what ways do the various multiple adults (as indicated in Question 1) interact with each other and with students?

(3) What patterns emerge between the actions and interactions of adults and students as they relate to the daily lessons/curriculum that make(s) up Camp Kaleidoscope?

Definition of Terms

This section includes definitions of relevant terms used throughout this Capstone.

Boundaries: Within a system, boundaries "set some of the parameters of what is inside and what is outside the system; it separates the environment from the actual system" (Vornberg, 2013, p. 806). Boundaries clearly delineate the system from the surrounding environment and for this study were things which existed or occurred independently of Project Kaleidoscope (e.g., things within the environment).

Co-teaching: Although there are varied ways in which co-teaching is defined, for this study co-teaching was considered:

> a professional classroom partnership [that] enables educators to more readily determine what students need, to deliver instruction and assess student learning more efficiently, and to tailor learning needs to the exceptional needs that some students have…co-teaching provides professionals with a sense of support, that is, the knowledge that ensuring students reach their educational goals is not a responsibility that has to be undertaken in isolation. (Friend, 2008, p. 2).

Environment: "anything outside the boundaries of the system that either affects the attributes of the internal components or is changed by the social system itself" (Hoy & Miskel, 2005, p. 21). In this study, this included legislation (e.g., NCLB and IDEA) and state and local policies for gifted education (e.g., local gifted plan, gifted policies, and staffing procedures).

Feedback: This aspect of a system allows for "continual changes in managing and adjusting the elements to better impact results based on the goals which the design is structured to attain" (Vornberg, 2013, p. 809-810); Can provide "self-correcting opportunities" (Hoy & Miskel, 2005, p. 21) however, they must be acted upon to incite the change which Vornberg described.

Gifted: Although there are numerous ways in which gifted can be defined (e.g., Crepeau-Hobson & Bianco, 2011; McClain & Pfeiffer, 2012), the Virginia Department of Education (VDOE) definition of gifted students is as follows:

> those students in public elementary, middle, and secondary schools beginning with kindergarten through twelfth grade who demonstrate high levels of accomplishment or who show the potential for higher levels of accomplishment when compared to others of the same age, experience, or environment. Their aptitudes and potential for accomplishment are so outstanding that they require special programs to meet their educational needs. (VDOE, 2012, 8V AC20-40-20)

The school district in which this study took place draws heavily from the VDOE definition and includes general intellectual aptitude, specific academic aptitude, and visual arts aptitude:

General Intellectual Aptitude. Such students demonstrate or have the potential to demonstrate superior reasoning; persistent intellectual curiosity; advanced use of language; exceptional problem solving; rapid acquisition and mastery of facts, concepts, and principles; and creative and imaginative expression across a broad range of intellectual disciplines beyond their age-level peers… Specific Academic Aptitude. Such students demonstrate or have the potential to demonstrate superior reasoning; persistent intellectual curiosity; advanced use of language; exceptional problem solving; rapid acquisition and mastery of facts, concepts, and principles; and creative and imaginative expression beyond their age-level peers in selected academic areas that include English or mathematics… (Anonymized School District, 2018)

*Please note that the definition for visual arts aptitude was not included here since students cannot become eligible for this gifted identification until fifth grade and was therefore outside of the scope of this study.

Inputs: Elements that interact within the process of a system (Vornberg, 2013). For this study, this included multiple adults involved in Camp Kaleidoscope (i.e., two teachers, parent volunteers, student-teaching assistant) and the SI curriculum.

Parent: Within this Capstone, this term was used broadly to refer to a students' parent and/or guardian such as a grandparent, aunt, etc. and was not limited to a biological parent. Furthermore, as described by Moon et al. (2015), within the scope of Camp Kaleidoscope, parents participating in the SI experience were dubbed "literacy assistants."

Multiple adults: This term was used in two different ways. First, when referring to literature and/or research regarding multiple adults, this included co-teaching partners, specialists (e.g., gifted resource teachers, special education teachers, reading specialists, librarians), pushing into a classroom or working in conjunction with a classroom teacher, volunteers (e.g., parents, older students, other volunteers), student teachers and PSTs, and instructional aides (including teaching assistants, paraprofessionals, and paraeducators). Second, when referring to the context of this Capstone and the multiple adults involved in Camp Kaleidoscope, this term included the two participating teachers, parent volunteers, and the student-teaching assistant.

Open system: A type of system which is fluid in nature and can influence or be influenced by other systems (Vornberg, 2013) and contains the following elements: inputs, transformational processes, outputs, feedback, boundaries, and the surrounding environment (Hoy & Miskel, 2005).

Outputs: Results produced by a system once inputs interact within a process (Vornberg, 2013); "usually products and services, but they may also include employee satisfaction and other by-products of the transformation process" (Hoy & Miskel, 2005, p. 20). Within the Project Kaleidoscope system, this included description and analysis of said descriptions based on data collected during the Camp Kaleidoscope process.

Process (or transformational process): Portion of the system in which "[t]he interaction of elements or inputs to the system occurs" (Vornberg, 2013, p. 806). The actual process in this study was the SI itself—Camp Kaleidoscope—as demonstrated by data including observations, interviews, and document analysis.

Student-teaching assistant: A teacher-selected, high-school or college-aged student-teaching assistant who served as one of the multiple adults during Camp Kaleidoscope.

System: "A set of elements standing in interrelation among themselves within the environment" (von Bertalanffy, 1972, p. 417); according to Vornberg (2013), "each thing and everything can be viewed as a system" (p. 805). In addition to this broad understanding of a system, for the scope of this Capstone, the "Project Kaleidoscope System" was considered everything encompassed in the conceptual framework in Figure 1.1.

Teaching assistant (TA): For the scope of this study, the term was used to describe those adults employed to work in classroom settings yet are not licensed professional educators. This term was considered synonymous with related terms, including paraprofessional, instructional assistant, or teaching aide.

Underrepresented populations: Students from populations that are historically underrepresented in gifted education, including "economically disadvantaged individuals, individuals with limited English proficiency, and individuals with disabilities" (NCLB, 2001, Section 5465), as well as minority students (Ford, 1998).

Chapter Summary

In this first chapter, I provided background related to inequities in gifted education, specifically focusing on underrepresented populations, situating this within research and educational policy. Then, I introduced the idea of rigorous curriculum as one approach to addressing aforementioned inequities. Although I noted that implementing such a rigorous curriculum might be challenging, I explained one potential way to address this challenge is through the incorporation of multiple adults working to

support students' instructional needs. I then identified various roles and instances in which multiple adults work together in the same classroom setting, intended benefits associated with having multiple adults in a classroom, and a need for additional research regarding multiple adults. Next, I situated this research study within the macro and micro problems of practice related to multiple adults. I then detailed the purpose of this Capstone and the research goal of learning more about the roles of multiple adults to inform future iterations of Camp Kaleidoscope. I also described systems theory and explained the conceptual framework that I used to guide my thinking throughout the Capstone process. Finally, I listed and defined relevant terminology that was used throughout this chapter and the remainder of this Capstone. In the next chapter, I provide detailed information regarding literature relevant to this Capstone research study.

Chapter 2: Review of Literature

In the previous chapter I situated this research study within the persistent issue of underrepresented populations in gifted education. I explained how rigorous curriculum, in conjunction with multiple adults in a classroom setting to support curriculum implementation, is one potential solution to address the problem of students from certain populations continuing to be underrepresented in gifted education. I also noted there is more research that needs to be conducted in regard to multiple adults in the classroom (e.g., Friend et al., 2010; Peercy, Martin-Beltrán, Silverman, & Nunn, 2015; Walker et al., 2011). The micro problem of practice addressed in this research study was aimed at examining the presence of multiple adults during a summer intersession for primary-aged students with gifted potential through the implementation of an academically-challenging curriculum. As such, in the following review of literature I describe research regarding underrepresentation in gifted education, rigorous curriculum, and multiple adults in the classroom. Specifically, I considered gifted underrepresentation from a national to local scale. Then, I addressed characteristics, types, and challenges associated with rigorous curriculum. Finally, I examined various roles of multiple adults in a classroom such as co-teachers, future educators, and parents, along with benefits, challenges, and influential factors to examine when considering the roles of these multiple adults.

Underrepresentation in Gifted Education

Underrepresentation of various student populations in gifted education is an on-going issue. In 1998, Ford explained that "concerns over recruiting and retaining minority students in gifted programs have persisted for several decades" (p. 4) and acknowledged "[n]ational concerns about the persistent underrepresentation of minority students in gifted education programs" (p. 6). Borland and Wright (1994) stated underrepresentation of students from low socio-economic status (SES) backgrounds is an issue that has existed "for the [gifted] field since its inception" (p. 164). In addition to culturally and linguistically diverse (CLD) students (Baldwin, 2005) and those from low-SES backgrounds being underrepresented in gifted education, Crepeau-Hobson and Bianco (2011) expressed concerns regarding underrepresentation of twice exceptional students. They addressed gifted identification for those students who are both gifted and have a learning disability and noted the barrier of some educators not being able to see past a student's disability to acknowledge and support their giftedness (Crepeau-Hobson & Bianco, 2011). Given this research (i.e., Baldwin, 2005; Borland & Wright, 1994; Crepeau-Hobson & Bianco, 2011; Ford, 1998) the terms "underrepresented populations" or "underrepresentation" refer to CLD students including minority students and students who are English Language Learners (ELL), students from low-SES backgrounds, and students with disabilities.

When considering the issue of underrepresented populations in gifted education, gifted identification policies and procedures are important to consider as they can function in a way that supports student access to gifted services or as a gatekeeper to gifted services. Despite the potential influence of identification policies, the National

Association for Gifted Children (NAGC) reported numerous barriers to gifted

identification by highlighting inconsistencies in gifted policies across the nation, and

even within states, as a number of decisions are left to individual school districts (NAGC,

2015). Specifically, the report identified the following inconsistences that can serve as

barriers to gifted identification and/or gifted education services:

- Only 12 states have policies that require school districts to accept gifted

  identification from another district within the same state.

- 5 states have explicit policies that do not allow their schools to accept

  gifted education ability granted in another state, and nearly 30 states leave

  such decisions to local school districts.

- 13 states expressly prohibit students from entering Kindergarten early and

  19 state leave such decisions to the local school district.

- 2 states prohibit students from being dually enrolled in both middle school

  and high school while 26 leave such decisions to the school districts.

- 4 states prohibit proficiency-based promotion or the advancement of

  students by subject, and 14 states leave decisions to school districts.

  (NAGC, 2015, p. 2)

The inconsistencies regarding gifted identification, policies, and available services across

the nation highlight a lack of clear guidelines to ensure equitable practices, policies, and

representation in gifted education.

Although McClain and Pfeiffer (2012) claimed "a growing commitment to greater

diversity of gifted students at the state level" (p. 78), in the 2014-2015 State of the Nation

in Gifted Education report, the NAGC cited "limited public accountability," explaining

the lack of available data regarding various underrepresented populations in gifted education. Specifically, it was stated in the report that only 20 states provide gifted student data by race and ethnicity, 12 states provide data on gifted students from low-SES backgrounds, and only 10 states provide data on gifted students who are ELLs (NAGC, 2015). This poses a challenge to addressing the underrepresentation of students from certain populations because it masks the extent of the issue due to incomplete or not readily available data. Additionally, in an NAGC Position Statement, "Redefining giftedness for a new century: Shifting the paradigm," it was noted that environmental circumstances (e.g., barriers to learning associated with poverty, discrimination, learning disabilities) can also serve as barriers for some gifted students and students with gifted potential (NAGC, 2010). This demonstrates a need for concerted efforts to support students from historically underrepresented populations to reach their full academic potential so that such environmental circumstances do not influence their academic abilities and opportunities to foster their gifts and talents.

Considering the historical underrepresentation of various populations in gifted education is important for situating this Capstone study within the Conceptual Framework that guided this research and the larger system of Project Kaleidoscope. Additionally, the process of Camp Kaleidoscope is situated within this larger Project Kaleidoscope system and was designed to support students with gifted potential, including those from underrepresented populations. As such, examining literature on inequities regarding underrepresented populations in gifted education is an important component of the Project Kaleidoscope system generally, and the Camp Kaleidoscope process in particular.

Inequity in Gifted Education

The concern regarding inequities associated with underrepresented populations in gifted education has been addressed in research and policy at national, state, and local levels. In their research, Callahan, Moon, and Oh (2017) sought to paint "a national portrait of the policies and practices in gifted education as enacted at the district level" (p. 26). In doing so, the researchers examined a number of components of gifted programs, including demographic information of minority students and students from low-SES backgrounds. Based on findings from survey data, Callahan et al. (2017) found that of the participants representing elementary schools, 54% stated Hispanic student representation in their gifted programs was exactly aligned to the overall student population, 50% stated exact alignment for African American students, and only 17.8% stated exact alignment for students from poverty. As such, the researchers recommended districts alter their policies that guide gifted programs (Callahan et al., 2017). According to the researchers, the purpose for gifted policies is to "provide the benchmarks against which to measure compliance and consistency to the established state laws and regulations by allowing what and how questions to be addressed…[t]hat is, they provide clear direction regarding each component of a gifted program" (p. 42). As noted previously, clear direction regarding gifted policy is lacking; therefore, the recommendation for altering gifted policies demonstrates the need to address inconsistencies in gifted education. Furthermore, the recommendation for districts to consider changes to policy is important since underrepresentation is not just an issue that exists on a national level and should therefore be examined at the state and local levels as well.

At the state-level, nearly 1.3 million full-time students are educated within

Virginia and of these students, 166,632 (12.9%) had a gifted identification during the

2016-2017 academic year. When looking at these data broken down by students' race and

ethnicity, state-level inequities in gifted education were apparent in regard to

underrepresentation of some groups and overrepresentation of others. In Table 2.1, the

total population of full-time students in Virginia is juxtaposed to students identified for

gifted by race and ethnicity, as well as those referred for gifted education during the

2016-2017 school year. What is made evident through an examination of these data is the

underrepresentation of Hispanic and Black or African American students, while Asian

and White students are overrepresented in gifted education. This demonstrates a clear

lack of alignment between student population and gifted identification and referrals based

on student race and ethnicity.

Table 2.1
*Comparison of total population of full-time students in Virginia to students referred for
gifted, and identified for gifted by race and ethnicity*

	Virginia Schools	Identified Gifted in Virginia as of 2016-2017	Referred for Gifted in Virginia during 2016-2017 School Year
Hispanic/ of any race	203,088 (15.72%)	14,050 (8.43%)	4810 (10.61%)
American Indian/ Alaska Native	3,486 (>1%)	304 (>1%)	121 (>1%)
Asian	90,305 (6.99%)	22,907 (13.75%)	5227 (11.53%)
Black or African American	288,984 (22.37%)	16,427 (9.86%)	6265 (13.81%)
Native Hawaiian/ Pacific Islander	2,045 (>1%)	234 (>1%)	66 (>1%)
White	632,160 (48.94%)	102,832 (61.71%)	25,926 (57.17%)
Two or more races (Non-Hispanic)	71,514 (5.54%)	9,878 (5.93%)	2,935 (6.47%)
Total	1,291,582 (100%)	166,632 (100%)	45,350 (100%)

To increase diversity and have proportionally equitable representation of students in gifted education, the Virginia Department of Education (VDOE) published a report in 2017 that addressed aspects such as the process of referring and identifying students for gifted education, adopting the use of a talent pool to foster students' gifted potential, and educating teachers and parents about giftedness so they can better support students with gifted potential (Virginia Advisory Committee for the Education of the Gifted [VACEG], 2017). While considerations and recommendations were offered in this report, along with the acknowledgment of improvements regarding equity in gifted education, the report ultimately concluded that "[i]t is up to each school division to identify those best practices that can be implemented in their division to increase the diversity in their gifted education programs (VDOE, 2017). When individual states and school divisions are not guided by clear definitions, expectations, and/or policies, along with a national problem regarding underrepresentation of certain populations in gifted education, this state and district autonomy can cause problems regarding lack of alignment and consistency and can function as a barrier to gifted education.

At the district in which this study took place, the issue of inequity in gifted education was acknowledged in this local context based on district policies aimed at rectifying said inequities. For instance, in the school district in which this study was conducted, as part of the district's Statement of Philosophy for gifted education, it is stated that "[h]igh ability students will be identified in all ethnic and socio-economic groups" (Anonymized School District, 2018). Additionally, the district has a section in their Gifted Plan that includes strategies "to ensure equitable representation of students" (Anonymized School District, 2018). It was important to consider state and district

policies concerning gifted education and inequities in gifted education as part of the context for this study. With that said, these policies were considered to be outside of the boundaries of the Project Kaleidoscope system as depicted in Figure 1.1. This distinction demonstrated that, while policies such as those aforedescribed have the potential to influence the system, such policies exist independently from Project Kaleidoscope. Since issues of underrepresentation are well-documented within the field of gifted education, it is necessary to consider approaches to support students from traditionally underrepresented populations with gifted potential by fostering these students' gifted and talented development.

Rigorous Curriculum

Offering curriculum that is rigorous, or academically-challenging, is one approach to addressing the continual issue of students from certain populations being underrepresented in gifted education. Tomlinson (2005) explained that "highly able learners, like all other learners, can only grow when they are stretched. It generally requires curriculum and instruction which is often more advanced than age expectations to be a catalyst for the stretching of advanced learners" (p. 165). Therefore, within this literature review, I considered the role of academically-challenging curriculum as a tool for teachers to utilize when working with students with gifted potential, including those from underrepresented populations, as a means of supporting students' talent development. In this section, I describe characteristics of rigorous curriculum, different types of rigorous curriculum, and challenges associated with implementing rigorous curriculum.

Characteristics of Rigorous Curriculum

To implement academically-challenging curriculum and support students with gifted potential by developing their gifts and talents, characteristics of rigorous curriculum were identified. Although the following section is not an exhaustive list of characteristics associated with high-quality curriculum, several characteristics were repeatedly noted in research, textbooks, and other curriculum-related materials. These characteristics are addressed in the remainder of this section and include:

- a focus on enduring understandings,

- alignment between curriculum, assessment, and instruction,

- opportunities for differentiation,

- developmentally appropriate instruction involving authentic experiences, and

- student engagement.

Focus on enduring understandings. According to Estes and Mintz (2016), "[d]eep understanding of the discipline is the goal, and big understandings help to get there. With deep understanding, students are more likely to apply knowledge to new problems and situations" (p. 25). The value of teaching for enduring, or deep understandings, is also present in Hockett's (2009) work in which she identified deep understanding as a goal for both general and gifted education curriculum. In describing their framework for designing rigorous curriculum, Wiggins and McTighe (2011) explained "we want understanding by design" (p. 7). They noted that when educators teach for understanding, students are better able to transfer and apply their learning to contexts beyond the unit, classroom, and school (Wiggins & McTighe, 2011). For teachers to teach for understanding, curriculum experts have identified the importance of

teaching broad concepts rather than narrow topics (e.g., Erickson, 2007; Hockett, 2009),

planning curriculum with the end in mind or engaging in "backward design" (e.g.,

Tomlinson & Moon, 2013; Wiggins & McTighe, 2011, 2012), utilizing essential

questions to guide instruction (e.g., Wiggins & McTighe, 2011, 2012), and designing

assessments that support transferring understanding to new contexts (e.g., Tomlinson &

Moon, 2013). Once enduring understandings are determined as part of developing

rigorous curriculum, another aspect to academically rigorous curriculum is ensuring

alignment among curriculum components.

Alignment. Alignment is considered to be a critical aspect of quality instruction

generally (Early, Rogge, & Deci, 2014), with Early and colleagues operationalizing

alignment as "the extent to which the teacher is providing content that is on time and on

target with what students need to learn, as specified by relevant state and local standards

and assessments" (p. 222). While the definition provided by Early et al. (2014) is part of

aligned curriculum, this is a narrow definition which fails to acknowledge the numerous

factors that make up the definition of alignment and are required for an aligned

curriculum. Therefore, I operationalized alignment to include the connection between

content delivered and learning activities, standards and objectives, assessments, as well as

educational resources. Since these are all components of curriculum, alignment between

these elements is clearly needed. Additionally, Squires (2005) made the connection

between curriculum and academic standards clear and postulated that "[i]f there is no

curriculum to link instruction to standards, then the logic chain breaks in the middle, and

the written standards will not and cannot be realized without a balanced and aligned

curriculum" (p. 54). Estes and Mintz (2016) identified the need for clear and easily

understood learning objectives as a way for teachers to align objectives to scaffolded instruction and meet varying student needs. The benefit of alignment for scaffolding instruction is also related to the next characteristic of rigorous curriculum—opportunities for differentiation.

Opportunities for differentiation. Through a synthesis of work by curriculum experts, Hockett (2009) stated "[h]igh-quality general education curriculum is flexible in response to student differences" (p. 398). The idea of implementing flexible curriculum to meet students' varying needs, is related to the principles of differentiation. By modifying content, product, and process, teachers can differentiate instruction to meet the varying needs of students (Tomlinson, 1999). Opportunities for differentiation is a characteristic of rigorous curriculum since instruction can be modified to meet the needs of advanced students. Additionally, "[d]ifferentiated instruction promotes a rigorous curriculum for all students" (Friend & Pope, 2005 p. 59), including those who might need additional support.

Demonstrating the benefits of opportunities for differentiation, as part of a school improvement plan, Beecher and Sweeny (2008) detailed the steps of one elementary school. Specifically, one component of the school's plan was to focus on enrichment as a way to differentiate curriculum. The researchers explained that creating rigorous curriculum became a teacher priority with specific initiatives regarding differentiated units and lessons (Beecher & Sweeny, 2008). Through the incorporation of differentiated instructional experiences, they noted the "[c]lassrooms became active learning environments, and the role of the children and teachers changed dramatically" (Beecher & Sweeny, 2008, p. 515). Similar to the need for differentiation during instruction,

McClain and Pfeiffer (2012) explained how differentiation can also impact the gifted

identification process. They stated that "approximately half of the states recognize that

some groups of students in U.S. schools are less likely to do as well on traditional gifted

identification methods and benefit from flexible and nontraditional gifted identification

procedures" (McClain & Pfeiffer, 2012, p. 75). This suggests that opportunities for

differentiated instruction and assessments can support students, including those whose

gifted potential may manifest in nontraditional ways. As such, opportunities for

differentiation can aid in fostering talent development and is therefore an important

characteristic of rigorous curriculum for supporting students, including those from

underrepresented populations in gifted education.

  Developmentally appropriate and authentic. In her article on high-quality

curriculum, Tomlinson (2005) posed the question: "[w]hat does it take to make good

curriculum and instruction appropriate for highly able learners?" (p. 163). Her response

included appropriate pacing, an appropriate amount of challenge, and opportunities for

students to develop their passions (Tomlinson, 2005), all of which are related to

components of a curriculum that is both developmentally appropriate and authentic.

Tomlinson (2005) was careful to note that simply increasing the pace or amount of work

advanced students engage in is insufficient; the work in which they are interacting with

should also be of good quality. In writing about enduring understandings, Wiggins and

McTighe (2011) explained that authentic performance can reveal students' understanding

of class content. Hockett (2009) also identified authenticity as a component of high-

quality curriculum for both general and gifted education. In particular, she noted in

academically-rigorous curriculum for gifted learners, students are asked to "use processes

and materials that approximate those of an expert, disciplinarian, or practicing professional" (Hockett, 2009, p. 408) and that they grapple with real-world problems "that are true-to-life, and [result in] outcomes that are transformational" (p. 409). To engage students in quality experiences, teachers should implement curriculum in which students are interacting with authentic learning experiences, such as those of a practicing professional or a problem that students could encounter in their own lives.

Student engagement. A final characteristic of rigorous curriculum explored within this literature review is that of promoting or designing curriculum to maximize student engagement. The role of engagement has been noted in texts and articles on instruction more broadly (Early et al., 2014), as well as curriculum specifically (Darling-Hammond, 1993; Hockett, 2009). Early et al. (2014) considered engagement a "vital sign of high-quality instruction" (p. 219) and explained that observed engagement, along with aligned and rigorous instruction, was associated with student achievement in math and English Language Arts (ELA) at the secondary level. In addition to student outcomes, Hockett (2009) explained that when curriculum supports or encourages a "meaningful [connection] between the student and what he or she is learning" (p. 403), this provides opportunities for increased student engagement. In her work on transforming schools, Darling-Hammond (1993) acknowledged the importance of engagement for meeting varying student needs and supporting student learning. Making learning meaningful to students by engaging them in instruction they believe to be valuable "allows them to make connections with their own individual experiences and goals, it presents opportunities to see beyond the immediate activity to long-term effects and outcomes, and it may provide a context for personal relevance and growth" (Little, 2012, p. 700).

Rigorous curriculum that is intended to challenge students, including curriculum that is intended to foster talent development in gifted and potentially gifted students from traditionally underrepresented populations, is frequently comprised of the aforedescribed characteristics. For instance, the "One Upon a Time…" curriculum, an input of the Camp Kaleidoscope process and part of the Project Kaleidoscope system, contains all of the characteristics detailed within this section. Additionally, to further demonstrate the frequency and importance of these characteristics of rigorous curriculum, there are various curriculum frameworks commonly employed in both general and gifted education that incorporate these characteristics as part of curriculum design and development.

Types of Rigorous Curriculum

There are a multitude of different frameworks and curriculum guides for constructing units of instruction. In this section, I describe two different frameworks, or approaches to designing rigorous curriculum, and how these models in particular emphasize characteristics of rigorous curriculum. The first framework described is a model for gifted education curriculum; however, Hockett (2009) described ways in which this curriculum incorporates characteristics of academically-challenging curriculum that can be utilized with all students, including those who are gifted or have gifted potential. The second framework, although not rooted in gifted education, embodies characteristics of rigorous curriculum and is an example of rigorous curriculum that can meet students' academic needs while fostering gifted potential and talent development.

Multiple Menu Model. A curriculum framework that is commonly used in the field of gifted education is the Multiple Menu Model (MMM) in which the main aim is to provide opportunities for differentiation. According to Renzulli, Leppien, and Hays

(2000), the MMM is intended to "help curriculum designers use the information on how knowledge develops to create interesting and more authentic units of instruction" (p. 7). The framework consists of different menus such as the knowledge menu and instructional techniques menus, including the instructional strategies menu and the artistic modification menu (Renzulli, Leppien, & Hays, 2000). The MMM embodies characteristics that make it a curriculum framework that can be implemented in both general education and gifted education settings (Hockett, 2009).

This curriculum framework encompasses all five characteristics of rigorous curriculum previously explored within this literature review. The goal of the framework is aimed at supporting enduring understandings and big ideas since there is a focus on principles, which Renzulli et al. (2000) explained "help learners probe the 'big ideas' of a discipline and help teachers get to the heart of the content" (p. 26). Additionally, this demonstrates a connection to authentic learning experiences since the MMM is rooted in "the application of investigative methodologies as they pertain to a particular discipline or field of study" (p. 11). Students are engaged through exploration and opportunities for differentiation, all which are part of the aligned framework (Renzulli et al., 2000). It is evident that although this is a curriculum framework frequently employed in gifted education, it encompasses characteristics of rigorous curriculum that can be applied in general and gifted education settings.

Understanding by Design. Although not designed for gifted education specifically, another rigorous curriculum framework is Wiggins and McTighe's, Understanding by Design (UbD). Wiggins and McTighe (2011) explained that the "big ideas of UbD" (p. 3), include a focus on the transfer of learning through "big ideas" or

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enduring understandings, students' ability to apply their learning, and curriculum that is designed with the end goals in mind (i.e., backward design). As such, this framework is comprised of intended or desired results, evidence of results, and a learning plan as a way to achieve the desired results, employing backward design throughout unit creation (Wiggins & McTighe, 2011). Since the framework is intended to support student learning of enduring understandings, this approach to curriculum design can be applied to general and gifted education, and teachers can provide scaffolded instruction to support students as needed.

One of the core tenants of the UbD framework is backward design (Wiggins & McTighe, 2011), in which alignment between curricular components is crucial, thus highlighting this rigorous curriculum characteristic. Because the UbD framework is based on the importance of transferring learning, the characteristics of focusing on enduring understandings and developmentally appropriate, authentic instruction are also present within this curriculum model. The developers of this approach also include a section on how to differentiate the curriculum for different learners (Wiggins & McTighe, 2012), highlighting the connection to the opportunities for differentiation characteristic. Furthermore, as part of assessment within UbD, "performance tasks that require transfer" (Wiggins & McTighe, 2012, p. 7) encourage student engagement since they can be used to provide challenging, real-world tasks that "engage students in meaningful learning" (McTighe, 2015, p. 7).

While these frameworks include characteristics of academically-challenging curriculum, it is evident that designing and implementing rigorous curriculum could pose challenges to educators, especially if they lack supports to fully and accurately implement

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said curriculum. This lack of support relates to the challenges associated with implementing rigorous curriculum that have these noted characteristics.

Challenges of Implementing Rigorous Curriculum

In her text on transforming schools, Darling-Hammond (1993) explained "that effective teaching techniques will vary for students with different learning styles, with differently developed intelligences, or at different stages of cognitive development; for different subject areas; and for different instructional goals" (p. 757-758). Enacting curriculum that embodies characteristics of high-quality can address these differences; however, experts note that there are also challenges to implementing such a curriculum.

Expertise in content and pedagogy. To create and implement a rigorous curriculum that encompasses all of the characteristics described within this literature review, teachers must have both content-area and pedagogical expertise. To determine objectives for a unit of curriculum, teachers must engage in "careful consideration of disciplinary content" (Estes & Mintz, 2016, p. 16-17), demonstrating a need for content-area expertise. Furthermore, they should have the skills and content knowledge to implement curriculum that "moves students toward expertise" (Hockett, 2009, p. 401), deliver instruction that is "focused on deeper conceptual understanding" (Erickson, 2007, p. 34), and be able to modify curriculum so that it can be "adjusted for students' interests, capacities, or choices" (Hockett, 2009, p. 414). For example, within the MMM, Renzulli and colleagues (2000) noted the necessity in curriculum developers understanding the concepts in the various menus and recommended the use of a content expert to identify big ideas of a given field or discipline, relating to the challenge of needing content area expertise when implementing rigorous curriculum, such as with the MMM.

Without sufficient content-area expertise, teachers may find it challenging to enact high-quality curriculum. Furthermore, it is likely that teachers without deep content understanding would have difficulty supporting students as they work toward becoming experts, one of Hockett's (2009) principles for high-quality curriculum. As such, if teachers do not have the necessary content knowledge to move students along the continuum toward expertise, they may also not be able to anticipate potential student misconceptions or be able to differentiate their instruction in developmentally appropriate ways. This also highlights the need for teachers to have pedagogical expertise, in addition to being experts in their content area. Wiggins and McTighe (2011) explained that as teachers, "we must stop, analyze, and adjust as needed, on a regular basis" (p. 4). If a teacher does not possess pedagogical expertise, they are likely to struggle to make these necessary adjustments to instruction to best meet students' varying needs.

One way to combat this challenge when implementing rigorous curriculum to support students' talent development is by bringing in other adults into a shared classroom who have expertise in a certain area that the classroom teacher may not possess (e.g., a general education science teacher and a special education teacher working together). In this way, one adult serves as the content-area expert and the other teacher serves as an expert in pedagogy. Friend and Pope (2005) explained that co-teaching is one example of teachers working together to instruct students and can be employed when working with a diverse group of students, some of whom might have disabilities, be bilingual, or gifted, and require additional support from an expert who is attuned to their particular educational needs. Beecher and Sweeny (2008) also described the role of multiple adults collaborating during shared instruction to support elementary students'

needs in writing and math. They explained that ELL teachers, special education teachers, and speech language pathologists (SLP) collaborated when implementing a curriculum that employed differentiated writing (Beecher & Sweeny, 2008). These examples demonstrate that one way to address the challenge of needing to have content knowledge expertise, as well as pedagogical expertise, can be by incorporating multiple adults with differing areas of expertise in a classroom to support students academically.

Curriculum enactment. Ball and Cohen (1996) stated, "the curriculum that counts is the curriculum that is enacted" (p. 8). As such, it is important to consider the role of curriculum enactment when implementing an academically-challenging or rigorous curriculum. In one study, teachers' fidelity to "structural features" of a curriculum was examined over the course of one academic year. Specifically, it was noted that fidelity began high, lessened as the academic year continued, and then increased to what it had been at the start of the school year (Pence, Justice, & Wiggins, 2008). This suggests that the ways in which teachers implement a curriculum may not always align to what is stated within the actual curriculum. In another study, Azano and colleagues (2011) conducted research on teachers' fidelity to a gifted curriculum. The researchers found that approximately one-quarter of the participants adhered closely to the written curriculum, one-quarter had low curriculum adherence, and slightly more than half were considered "as exhibiting mixed-adherence" and "delivering the intervention with mixed quality" (Azano et al., 2011, p. 709). Again, this study demonstrates that the way in which a curriculum is enacted may not always reflect the written curriculum. Furthermore, the variation in teachers' enactment of the curriculum demonstrates that

even when all teachers have the same curriculum, it can be implemented differently by different teachers.

Since these studies suggest curriculum and curriculum enactment may not always align, it is important to consider how a lack of or limited curriculum fidelity might alter the rigor of an academically-challenging curriculum. While curriculum enactment might be altered or perhaps simplified given the complex nature of a rigorous curriculum, multiple adults working together can support one another in the enactment of such a curriculum. Since benefits of having multiple adults in shared classroom settings include bringing together the expertise of different adults (Beecher & Sweeny, 2008; Cook & Friend, 1995) and opportunities to collaborate with other educators (e.g., Scruggs & Mastropieri, 2017), this could be one way for adults working together to ensure they are maintaining the rigor associated with an academically-challenging curriculum while enacting said curriculum.

Assessment. Another component and potential challenge to consider when implementing rigorous curriculum is that of assessment. Assessment plays an important role in the learning process (Estes & Mintz; 2016; Tomlinson & Moon, 2013; Wiggins & McTighe, 2011, 2012), demonstrating that it should be used to inform teaching and learning. However, collecting formative data while also delivering or facilitating instruction, and potentially deviating from planned instruction based on said data collection, can pose a challenge when a teacher is implementing academically rigorous curriculum. While Tomlinson and Moon (2013) referred to assessment as "the compass for daily planning in a differentiated classroom" (p. 8) and "the foundation of successful instructional planning" (p. 17), it is evident that additional supports could reduce the

challenge of collecting formative data while simultaneously implementing rigorous curriculum.

When multiple adults are present in a shared classroom space, this could be a solution to alleviating the challenge teachers face of collecting data while also using it to inform instruction. Beecher and Sweeny (2008) cited monthly grade-level meetings between general education teachers and specialists as a way to assess student learning and use this knowledge to inform classroom instruction. Following that logic, when multiple adults share responsibility, assessments can be evaluated more quickly, increasing the ability of teachers to draw on this information to inform future instruction.

Designing assessments such as performance tasks, which are utilized as part of the UbD framework (Wiggins & McTighe, 2012), can also be a challenge of assessment within a rigorous curriculum. Creating and evaluating such assessments requires a clear understanding of end goals prior to the start of an instructional unit to accurately implement backward design, further highlighting the need for content-area expertise. Additionally, developing performance tasks could be a time-consuming process, which is the final challenge explored in this review regarding the implementation of academically-challenging curriculum.

Time-consuming. Teachers working to create or implement instruction that encompasses all of the characteristics of rigorous curriculum previously identified can be a time-consuming process. For instance, if teachers do not have necessary content-area expertise, it can be a time-consuming process to teach the content to oneself prior to implementation of the curriculum. Lacking experience with a particular curriculum can also be time-consuming as teachers spend time reviewing all of the particular or minute

details within the curriculum. Similarly, without pedagogical expertise, teachers may spend considerable amounts of time trying to identify best practices to meet their students' needs, since this is not an area in which they are an expert. As such, if teachers are faced with the challenge of lacking expertise or experience, it is also possible that they will face a challenge regarding the time required to implement rigorous curriculum. Additionally, the amount of time required to assess or evaluate student work also poses a challenge when using assessments to inform instruction (Hartley & Plucker, 2014), again demonstrating the relationship between the challenge of time and other aspects of implementing rigorous curriculum. Also, planning for instruction that includes characteristics of rigorous curriculum, such as embedding opportunities for differentiation and ensuring alignment among all curricular components, can require a large time commitment on the part of an educator. A curriculum that embodies these characteristics does not call for a "one size fits all" approach to curriculum design and requires the teacher to continually ensure that enduring understandings are being met through aligned and differentiated instruction. Lastly, when implementing rigorous curriculum, it might be necessary for teachers to spend more time with small groups or individual students to provide additional scaffolding; however, this could take the teacher away from other curricular or classroom responsibilities. It could also result in the teacher interacting with students less frequently, since she is devoting more time to working with individuals.

The time-consuming nature of implementing rigorous curriculum was demonstrated in a study by Beecher and Sweeny (2008). Teachers who participated in a school improvement initiative engaged in a week of curriculum planning during the

summer to create differentiated curriculum units and engaged in training to learn about how to effectively implement differentiated instruction (Beecher & Sweeny, 2008). While the researchers noted positive gains in student achievement through an involved school improvement plan, this required a considerable time commitment from many educators. In another example, because of challenges regarding time, or a lack of time, when implementing creative activities in the classroom, the majority of American teachers in a study reported having students complete worksheets four times a week or more (Hartley & Plucker, 2014). In other work, recommendations for addressing the time challenge included having centers with some students engaging in independent work while the teacher works with others (Hunt & Yoshida-Ehrmann, 2016; Mahiri & Maniates, 2013), receiving administrative support in regard to providing adequate planning time (Miller, 2003), and teachers collaborating to share responsibilities, rather than working independently (Friend & Pope, 2005).

Multiple Adults

Multiple adults present in the same classroom setting can serve in a variety of different roles, have different expectations and responsibilities based on their role or the context in which they are in, and can vary in the frequency in which they are in classrooms. Based on these components, they will likely engage in a range of differing actions and interactions in the classroom.

Multiple Teachers

The purpose of this study was to better understand how multiple adults at one Project Kaleidoscope SI site acted and interacted as they worked with potentially gifted students in their classroom through the implementation of a rigorous, literacy-based

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curriculum. As such, multiple adults, including teachers, parent volunteers, and a student-teaching assistant, were all considered to be inputs who interacted with each other, students, and the curriculum as part of the Camp Kaleidoscope process. Therefore, it is essential to better understand the differing roles of these multiple adults and the types and conditions under which these relationships emerge. In the following section, I describe one common model employed when multiple teachers work in the same classroom—co-teaching. Then, I provide information on groupings of teachers who frequently work together. Often, this includes a general education teacher working with a specialist including literacy coaches, special education teachers, instructional coaches, and gifted educators among others; however, two general education teachers may also work together.

Co-teaching. One frequent instance in which two teachers share a classroom setting is when they are engaging in co-teaching or are part of a co-teaching partnership. A number of research articles (e.g., Cramer & Nevin, 2006; Friend et al., 2010; Nichols et al., 2010; Scruggs & Mastropieri, 2017; Villa, Thousand, Nevin, & Liston, 2005) have pointed to the influence of federal legislation (i.e., NCLB and IDEA) urging increased instances of co-teaching. This demonstrates how elements that exist outside of the boundaries of a given system, still have the potential to influence elements within a system. However, it is first important to consider differing definitions of co-teaching, as this is not conceptualized in the same way by all researchers and practitioners.

Co-teaching operationalized. Some definitions of co-teaching are operationalized in broad ways that include PSTs and other adults in the classroom who are not necessarily certified teachers. Other definitions, however, are narrower in scope. For

instance, in their study on PSTs, Allen, Perl, Goodson, and Sprouse (2014) contextualized their study explaining that because "[e]ducators knew an extra person in the classroom reduced the student-teacher ratio and thus improved learning…both teacher and prospective teacher would remain in the classroom to co-teach" (p. 20). Guise et al. (2017) narrowed this definition by suggesting there is a co-teaching continuum when PSTs work with classroom teachers to co-teach that can resemble traditional approaches to student teaching or those more aligned to co-teaching. Therefore, depending on the way pairs engage in and approach these partnerships, can determine if they are co-teaching (Guise et al., 2017).

In their review of co-teaching literature, Fluijt, Bakker, and Struyf (2016) juxtaposed various co-teaching definitions examining similarities and differences among them. While still broad, the researchers recommended the following definition that incorporates aspects research has indicated led to or were influential in co-teaching success:

> multiple professionals working together in a co-teaching team, on the basis of a shared vision, in a structured manner, during a longer period in which they are equally responsible to good teaching and good learning to all students in their classroom. (p. 197)

A narrower definition of co-teaching was suggested by Cook and Friend (1995) who described co-teaching as "two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space" (p. 2). If operating under this definition of co-teaching, instances in which teaching assistants and PSTs are in a classroom with a classroom teacher would not be considered co-teaching. The writers

explained that while co-teaching partnerships are often comprised of a general education teacher and a special education teacher or related specialist, this does not always have to be the case, but that the goal is to capitalize on "the somewhat unique possibilities that occur from the different but complementary perspectives of the professionals involved" (Cook & Friend, 1995, p. 2). Examples of this may include a gifted educator working with a general classroom teacher or a secondary science and math teacher co-teaching together. Similar to the definition provided by Cook and Friend (1995), is Hughes and Murawski's (2001) explanation that co-teaching can occur between a general educator and gifted educator as "a means for two teachers to provide appropriate education to all students" (p. 195), including those who are gifted. Therefore, although a major catalyst for instances of co-teaching was to support students with disabilities in the general education classroom and to meet legislative requirements (e.g., Friend, 2008; Kilanowski-Press, Foote, & Rinaldo, 2010; Nichols et al., 2010; Scruggs & Mastropieri, 2017), many definitions of co-teaching go beyond this, extending to providing appropriate instruction for all students based on their varied educational needs. This also connects to the challenge of needing educators with both content-area and pedagogical expertise when implementing rigorous curriculum, since each member of a co-teaching partnership can bring their unique strengths to the classroom and students.

Co-teaching approaches. In addition to different ways in which co-teaching is defined, there are also different approaches or strategies to implementing co-teaching. In research and other texts on co-teaching, there are six typical approaches to co-teaching: one teach/one observe, one teach/one assist, station teaching, parallel teaching, alternative teaching, and team teaching. While each of the different approaches can be of value to

student learning and overall academic success, Brown, Howerter, and Morgan (2013) explained that "[t]he model chosen should address the diverse learning needs of all students in the classroom" (p. 87) and remind readers that multiple approaches can be implemented throughout the course of one lesson. In the remainder of this sub-section, I briefly describe the different co-teaching approaches.

The one teach/one observe approach to co-teaching consists of one teacher leading instruction while the other observes. What is important to note about ensuring effectiveness when implementing this approach is that the co-teacher who is observing should be doing so purposefully, since this approach is beneficial for teachers to gather data to then inform future instruction (Allen et al., 2014). Even though collecting data for formative assessments can pose a challenge when implementing rigorous curriculum, the one teach/one observe approach to co-teaching is one way for multiple adults to address this issue when working together. When using the one teach/one assist model, the assisting teacher is not leading instruction, but is working as a support for their teaching partner (Harpell, 2010). According to the meta-synthesis conducted by Scruggs, Mastropieri, and McDuffie (2007), this approach was the most commonly reported approach to co-teaching.

When implementing station teaching, students typically rotate to each of three stations with one teacher leading a station and the third station being independent or student-run (Allen et al., 2014; Harpell, 2010). This is similar to what Hughes and Murawski (2001) referred to as "rotation," with the central idea that each of the teachers are presenting the same material to different groups of students with scaffolding or modifications to appropriately support different students' learning, providing

opportunities for differentiation—another characteristic of rigorous curriculum. One benefit to the next co-teaching approach, parallel teaching, is that the student to teacher ratio is reduced since the two teachers divide the group of students evenly, teaching the same content (Harpell, 2010). As such, this co-teaching approach can address the challenge of teachers having fewer opportunities to interact with students when implementing rigorous curriculum since there is a reduced student-teacher ratio. Cook and Friend (1995) explained that this approach can be adapted in numerous ways, such as the two groups of students learning about the same content from different perspectives and then in a whole-group environment, discussing the issue or topic at hand. The alternative teaching approach to co-teaching takes place when the class is divided into two groups, but the groups are uneven in size. This could be an opportunity for enrichment or interest groups (Cook & Friend, 1995) or re-teaching (Haprell, 2010), again promoting opportunities for differentiation. The final co-teaching approach is team teaching, which is often seen as the most advanced. When implementing team teaching, the teaching pair works together to plan, deliver, and assess students (Hughes & Murawski, 2001). Kilanowski-Press et al. (2010) referred to this approach as "the form of co-teaching most reflective of the instructional spirit of co-teaching" (p. 54).

Although the one teach/one assist approach to co-teaching is the most frequently implemented (Scruggs et al., 2007), researchers have indicated that this approach is not providing opportunities for all of the intended benefits co-teaching has to offer. In the study by Embury and Kroeger (2012), researchers considered student perceptions in regard to different co-teaching approaches. In one group of middle schoolers who were instructed using the one teach/one assist approach to co-teaching, the researchers found

that the students considered the general educator the main or lead teacher with the special education teacher playing the role of helper "but not someone in control of the learning process or the classroom" (p. 107). On the other hand, in another group of students whose co-teachers implemented a variety of co-teaching approaches, the majority of the students reported equal status between the two teachers. In another study related to co-teaching perceptions, the researchers examined student and teacher perceptions regarding co-teaching approaches (Keeley, 2015). While study findings revealed one teach/one assist was an easy co-teaching approach for teachers to implement, it was also the one that students reported least effective in aiding their learning. In addition to reporting its ineffectiveness in perceived learning, students' responses indicated that this approach seemed to lead to unequal responsibility between the two teachers. Further, Keeley (2015) reported that student responses indicated a preference for parallel and team teaching approaches and that "[c]ollectively, student data imply a preference for co-teaching models that provide movement, small groups, lower student-teacher ratios to improve their overall learning experience with regard to how confident they are after a lesson has concluded" (p. 12).

In their practitioner article on best practices in co-teaching, Ploessi, Rock, Schoendelf, and Blanks (2010) recommended that the one teach/one assist approach be used sparingly. Keeley (2015) even went a step further stating that "as long as the One Teach/One Assist model is consistently implemented in the co-taught classroom, students are not experiencing any of the intended benefits as indicated are present when other co-teaching models are incorporated" (p. 14). Not only does this raise concerns about the frequency with which the one teach/one assist approach to co-teaching is being

implemented in favor of other approaches, this highlights the need to examine environments with multiple adults, such as co-teachers, so students can reap the intended benefits of having the support of multiple adults in the classroom at the same time.

Characteristics of successful co-teaching. Regardless of how co-teaching is defined and regardless of the approach which is implemented, there are several characteristics that repeatedly appeared in co-teaching literature as being necessary to contribute to a successful co-teaching partnership and overall success in regard to co-teaching. Among others, effective communication (Beninghof & Leensvart, 2016; Cook & Friend, 1995; Ploessi et al., 2010; Pratt, 2014; Scruggs & Mastropieri, 2017), opportunities to collaborate and plan together (Cook & Friend, 1995; Pugach & Winn, 2011; Pratt, Imbody, Wolf, & Patterson, 2017; Weilbacher & Tildford, 2015), and shared or equal responsibility (Beninghof & Leensvart, 2016; Cook et al., 2017; Friend, 2008; Scruggs et al., 2007) were some of the most common characteristics described in regard to components needed for successful co-teaching. Similarly, because multiple adults are interacting with one another during the SI as part of the Camp Kaleidoscope process (see Figure 1.1), it is crucial to consider aspects that contribute to success when multiple adults work together in shared classroom settings.

In Pratt's (2014) grounded theory study, participants indicated open and honest communication was one way to address challenges that arose when co-teaching. This was an important component to co-teaching partnerships "[a]s co-teachers learned about one another and how to work together in the classroom…through conversations and observations" (p. 7). In addition to research studies, several practical guides to implementing effective co-teaching highlighted the importance of communication.

Ploessi et al. (2010) acknowledged the value of communication between co-teaching partners when addressing co-teaching challenges. For instance, co-teachers are encouraged to address concerns before they grow (Ploessi et al., 2010). They also explained that communication can be used to assess teacher strengths. Finally, Scruggs and Mastropieri (2017) recommended co-teachers engage in effective communication as part of educator collaboration.

Cook and Friend (1995) demonstrated the importance of collaboration in co-teaching, claiming that "[i]deally, co-teaching includes collaboration in all facets of the educational process" (p. 3). One of the ways to successfully collaborate is through opportunities for co-teaching partners to plan instruction together (Cook & Friend, 1995). This idea was echoed by Pugach and Winn (2011) in their literature review in which the researchers recommended that a concerted effort should be made to "ensure and protect adequate planning time for co-teaching teams" (p. 45). Furthermore, Pratt et al. (2017) specifically examined the role of co-planning as part of co-teaching, examining a framework for co-planning for a unit, as well as on a bi-weekly and daily basis. Through the implementation of this co-planning framework, the writers explained that co-teachers plan together and have the same amount of responsibility in planning for instruction (Pratt et al., 2017).

According to Friend (2008), there is a strong connection between collaboration and shared responsibility in a co-teaching partnership and that the equal responsibility is a necessary component for successful co-teaching. Furthermore, she explained that knowing there is another professional to share responsibility with is one of the benefits of co-teaching (Friend, 2008). The idea of two teachers of equal status working together to

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comprise a co-teaching partnership has been previously described and is one example of best practices for sharing co-teaching responsibility exemplified (Ploessi et al., 2010). Co-teachers sharing responsibility for classroom instruction was also recommended by Cook et al. (2017).

Although it is clear there is abundant research, as well as best practice articles, there have also been a number of calls and recommendations for additional research regarding co-teaching (e.g., Keeley, 2015; Kilanowski-Press et al., 2010; Pancsofar & Petroff, 2013; Pugach & Winn, 2011; Scruggs & Mastropieri, 2017). For instance, Pugach and Winn (2011) explained that co-teaching research primarily comes from successful co-teaching teams and teachers' self-reported perceptions of co-teaching. As an area of future research, Scruggs et al. (2007) recommended "address[ing] the means by which individual schools are able to develop truly collaborative or genuine partnerships, and the specific gains that can be realized by such practices" (p. 413). Although the present research study did not address co-teaching specifically, but rather multiple adults more broadly, this study addressed Scruggs and colleagues' recommendation by examining actions and interactions of multiple adults in a classroom as a way to support students' learning.

Other specialists. Whether referred to as co-teaching, inclusion, push-in, etc., there are a variety of instances in which different teachers and educational specialists work together in a shared classroom space to support student needs. Examples of different types of specialists include, but are not limited to, ELL teachers (Peercy et al., 2015), gifted teachers (Henley et al., 2010), reading specialists (Galloway & Lesaux, 2014), special education teachers (Carter, Prater, Jackson, & Marchant, 2009) and school

librarians (Myhill, Hill, Link, Small, & Bunch, 2012). While each of these articles are focused on supporting students' needs in unique ways, common threads included the collaborative and inclusive practices that classroom teachers and other educators were encouraged to engage in to support student needs.

Collaborative practices. In a study on collaborative planning, teaching, and reflecting among general educators and ELL specialists, researchers examined how these collaborations took place and the influence of collaborations on teaching practices when these educators worked with ELL students (Peercy et al., 2015). Specifically, the researchers examined interactions of two general education teachers and two ELL educators. Based on data analysis, the researchers identified two themes regarding the interactions of these multiple teachers: "(a) teachers engaged in collaborative efforts to determine how to support student learning and (b) teachers' collaboration shaped how they engaged in their practices" (p. 40). For instance, in a planning session between general and ELL educators, an ELL teacher recommended specific strategies to support ELL students, demonstrating collaboration during planning with multiple teachers of various roles. In another instance, a classroom teacher modified their instruction based on collaboration with an ELL teacher when the other adult was in the classroom and when she was not, which indicated "even when other colleagues were not present in the room, the teachers' collaborative efforts had a distributive impact on teachers' practices" (Peercy et al., 2015, p. 47). Additionally, the researchers noted "important in-the-moment scaffolds" (p. 49) provided by the ELL teachers when the multiple teachers were in a shared classroom setting.

Another instance in which multiple teachers worked together to engage in collaborative practices was through Project ENABLE in which teacher-librarians, special educators, and general educators worked toward "developing collaborative capacity" (Myhill et al., 2012, p. 202). Through this program for PD, one of the key findings related to the "'role and necessity of collaboration'" (p. 206) as a way to meet varying student needs within the context of school libraries. Based on educator-created action plans, collaboration was reported as "necessary in 79.5% of the goals and for one or more goals in 92.6% of the plans" (p. 210), in addition to collaborative practices such as collaborative planning among multiple teachers of differing roles. The findings from this study suggest that when provided training, teachers representing different educational roles acknowledged the importance of collaboration and engaged in collaborative planning to meet student needs within school libraries.

Inclusive practices. Rooted in collaborative practices, another way in which specialists engaged with teachers was for the purpose of inclusive practices. According to Carter, Prater, Jackson, and Marchant (2009), collaboration is necessary for successful inclusive practices. In their study, the researchers worked with 12 teachers—six pairs of general and special education teachers. They reported that four of the pairs "jointly defined a problem to address" (Carter et al., 2009, p. 63) and "assumed joint responsibility for addressing the problem" (p. 63). For these partnerships, the teachers reported shared perceptions regarding the problem or challenge that needed to be addressed to support students with Carter and colleagues explaining that "[t]he factors that significantly influenced the teachers' experience in collaborating were the philosophies and beliefs about the nature of disability, their beliefs about instructing

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students with disabilities in inclusive classrooms, and their collaboration skills" (p. 67). Thus, while it is apparent that collaboration is key to multiple teachers working together, this study indicated that inclusive practices or beliefs regarding inclusive teaching practices are also important to consider.

Henley et al. (2010) also addressed the need for inclusive practices in regard to students receiving special education services, as well as gifted services, stating that these students and their teachers, "are often outsiders looking into the system that is supposed to be inclusive" (p. 203). Drawing on research from past studies, Henley and colleagues explained that if classroom teachers do not feel included in the practices of a gifted teacher, this could result in misalignment between gifted and general education curriculum for those students receiving gifted services. Ultimately, they concluded that all students need to feel included or as though they are "'insiders'" (Henley et al., 2010, p. 208). If multiple adults work together in the same classroom space, specifically a general educator and gifted educator, gifted students and teachers will be insiders and part of an inclusive environment within the general education classroom, rather than separated from their peers or colleagues.

Through the research presented in this section, it is clear that collaboration is integral to multiple teachers working together to best meet student needs, and highlights the clear connection between collaborative and inclusive practices. In the sections that follow, I address other roles that can be filled when multiple adults are in a shared classroom setting.

Other Adults

While multiple teachers in a classroom is clearly an approach to having multiple adults in a shared classroom, teachers are not the only adults who can fill this role. In addition to multiple teachers, other adults who can serve as an additional adult in a classroom include teaching assistants, PSTs, and classroom volunteers, including but not limited to parent volunteers. This was demonstrated within the SI component of the Project Kaleidoscope system, with parent volunteers and a student-teaching assistant working as part of the Camp Kaleidoscope process. In the following sub-sections, research on varied adults who often serve as additional support within classroom settings is described.

Teaching assistants. Many terms have been used synonymously to refer to teaching assistants, including instructional assistants, teaching assistants or teaching aides, and paraprofessionals (Harris & Aprile, 2015; Jones, Ratcliff, Sheehan, & Hunt, 2012). For the scope of this literature review, the term teaching assistant (TA) will be used to describe those adults who are employed to work in classroom settings, yet are not licensed professional educators. In the remainder of this section, I describe intended and enacted roles of TAs, intended benefits of TAs, and challenges associated with TAs when working with teachers in the same classroom.

Intended and enacted roles. Harris and Aprile (2015) noted that the inconsistent terminology surrounding TAs was "evidence of the widespread ambiguity about the roles these professionals should and do play within the school community" (p. 142). As such, researchers have identified a need for the roles and expectations of TAs to be more clearly defined (Harris & Aprile, 2015; Giangreco, Suter, & Doyle, 2010). In addition to

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clear expectations for TAs, researchers have called for additional research on best

practices when TAs are present within a classroom (Biggs, Gilson, & Carter, 2016;

Clarke & Visser, 2016). Furthermore, in one study in which teachers shared their

perspectives on TAs, participants also identified the need for clearly defined roles for

TAs (Bedford, Jackson, & Wilson, 2008). Several studies indicated that TAs engage in a

combination of instructional and non-instructional tasks including behavior management,

clerical tasks, working with individual students, conducting assessments, re-teaching or

reviewing content, and working with small groups of students in an instructional capacity

(Biggs et al., 2016; Harris & Aprile, 2015; Hughes & Valle-Riestra, 2008). Jones

Ratcliff, Sheehan, and Hunt (2012) noted that TAs were involved in instructional and

non-instructional tasks. The researchers also noted "[i]t has become common in some

countries, such as the United States, to employ paraeducators to work in public school

early childhood settings where often they are expected to teach skills to children" (p. 20).

In their literature review, Giangreco, Suter, and Doyle (2010) explained that there have

been varying opinions regarding appropriate tasks and expectations for TAs. As a result,

they recommended:

> paraprofessional roles should be restricted to supplemental, teacher-designed
>
> instruction as well as essential non-instructional roles (e.g., clerical duties,
>
> materials preparation, personal care, group supervision) that help create time and
>
> opportunities for general and special educators to collaborate with each other and
>
> spend more time directly instructing students with disabilities. (p. 52)

Another recommendation to eliminate the ambiguity of TAs expected roles was offered

by research participants (i.e., special education teachers and special education TAs) who

identified a need for school administrators to make clear expectations for teachers and

TAs when working together to support student needs (Biggs et al., 2016). Although

clearly defined roles and expectations can still be refined, there are a number of benefits

associated with the presence of a TA in a classroom.

Intended benefits and characteristics of optimal partnerships. A major intended

benefit associated with a TA is that their presence "allows teacher to engage pupils in

more creative and practical activities and to spend more time working with small groups

and individuals" (Alborz, Pearson, Farrell, & Howes, 2009, p. 2). While Alborz and

colleagues noted considerable variation regarding TAs impact on instruction based on

their literature review, they found that in some studies, teachers reported a decreased

workload through the support of TAs, increased levels of teacher satisfaction, and teacher

perceptions of positive influences regarding student learning outcomes. Additionally, the

presence of another adult in the classroom such as a TA results in a reduced teacher-

student ratio (Jones et al., 2012), thus serving as an additional benefit. To achieve

benefits associated with having TAs effectively interact with teachers and support

students within a classroom, several characteristics were repeatedly mentioned in

literature regarding optimal teacher-TA partnerships.

Some of the most often noted characteristics associated with influencing a

teacher-TA partnership included communication, opportunities for collaboration, and

general compatibility and shared teaching beliefs. According to teachers who participated

in a study in England on relationships between teachers and TAs, the most frequently

cited skills teachers needed to have an effective relationship with TAs was

communication, with 30% of respondents indicating this was a necessary skill in

fostering the partnership between a teacher and TA (Bedford et al., 2008). Furthermore, the skill that was identified most frequently as important for TAs to have to foster an effective partnership was also communication, with 27% of participants providing this response. Not only was the need for communication on the part of teachers and TAs cited, research also indicated the types of communication that occurred were noted characteristics for successful partnerships (Bedford et al., 2008; Biggs et al., 2016). For instance, clear communication was valued by TAs and teachers, as well as the importance of partners engaging in communicative exchanges that demonstrated respect and trust (Biggs et al., 2016). While collaboration was another factor identified as integral to successful teacher-TA partnerships in a number of studies, little opportunity to collaborate was frequently described as a challenge and will therefore be addressed in the following section. A third component of successful partnerships was that of shared beliefs and teacher compatibility. Biggs and colleagues (2016) identified "the need for teachers and paraprofessionals to share a long-term vision for their classroom, be invested in the same goals, and hold similar expectations for students" (p. 267). In the absence of these characteristics, several challenges have been acknowledged regarding teacher-TA partnerships.

Challenges. Common challenges of implementing an effective teacher-TA partnership have included a lack of opportunities or time to collaborate, infrequent opportunities for PD, and negative impacts on teacher-student relationships. Since collaboration was associated with successful partnerships, lack of opportunities to collaborate was frequently noted as a challenge in the literature (Biggs et al., 2016). Relatedly, another challenge was a need for more training or PD opportunities to be made

available to TAs (Biggs et al., 2016; Harris & Aprile, 2015). Alborz et al. (2009) also described "intensive one to one relationships between teaching assistants and pupils" (p. 4) as a challenge as this "can interfere with their engagement with teacher instruction" and could result in a situation in which "teaching goals inadvertently become diluted due to an emphasis on task completion at the expense of skill development" (p. 4).

Despite these potential challenges, TAs can be a great asset to supporting students and fostering their talent development, especially during the implementation of rigorous curriculum. Providing opportunities for differentiation, collecting formative assessment, and sharing instructional and non-instructional responsibilities can all be beneficial when teachers and TAs serve as multiple adults in a classroom to support students' varying learning needs.

Pre-service teachers (PST). Whether in the student teaching phase of their teacher preparation program, or earlier in their program, PSTs are an additional group who can serve in the role of a multiple adult within a classroom.

Approaches and programs. As part of school-university partnerships and other programs, PSTs have opportunities to work in K-12 classroom settings, gaining experience prior to becoming a classroom teacher themselves while also supporting in-service teachers and their students. As previously mentioned, co-teaching can be defined in broad ways that include PSTs. One example is the 2:1 co-teaching model employed in the study conducted by Tschida et al. (2015) in which two PSTs, or teaching candidates, worked with one mentor teacher. Utilizing this approach, "[b]oth cooperating teacher and teacher candidate(s) are actively involved and engaged in all aspects of instruction" (Tschida et al., 2015, p. 13). Not only was this intended to reduce the total number of

teacher candidate placements within the rural location in which the study took place, researchers determined that this approach to PST education resulted in PSTs and cooperating teachers reporting "stronger relationships with their co-teachers, greater impact on students, efficacy in their readiness to teach, and gains in collaborative skills" (p. 16).

As part of the Beyond Bridging Project (Gunckel & Wood, 2016), there were reported benefits to PSTs and the in-service teachers with whom they worked. In an effort to support PSTs and in-service teachers in teaching elementary science through inquiry, this program brought PSTs and in-service teachers together to engage in shared learning regarding science instruction. While the scope of the work by Gunckel and Wood (2016) was situated in planning sessions, the overall context of the teacher education program included PSTs serving as an additional adult in an in-service teacher's classroom over three semesters, suggesting that sustained interactions, or increased duration when working together, for multiple adults could be a contributing factor to their actions and interactions.

Another example of PSTs working with in-service teachers in the context of a K-12 classroom was through a tutoring program for reading in which PSTs worked with primary-aged struggling readers in a setting "which will be similar to where many of the pre-service teachers will spend their futures working as teachers" (Helfrich, 2012, p. 41). While the primary focus of this study was on PST outcomes and beliefs, in-service teachers requested these future teachers be part of their classroom so struggling readers had additional opportunities to engage with reading (Helfrich, 2012). Since this was through a university course, the majority of university students were PSTs; however, it

must be noted that the course was not limited to PSTs, as such, some tutors might have

not been part of a teacher preparation program. Regardless, Helfrich (2012)

recommended that teacher preparation programs incorporate tutoring experiences into

PST education as a way to support and prepare PSTs in a classroom setting where they

serve as an additional adult to work with and support students.

   Intended benefits and actual outcomes. As was the case with TAs**,** when PSTs

work in a classroom setting with an in-service educator, the student-teacher ratio is

reduced. This was noted by Tschida et al. (2015) who said teachers reported a reduced

teacher-student ratio, as well as other managerial benefits such as "keeping students on

task…and cut out wait time" (p. 17) or time in which students are waiting on teachers to

receive additional and/or individualized support. As was the intention with the reading

tutoring program, when PSTs work with students, this can be a learning experience for

future educators (Helfrich, 2012). However, they are not the only ones to benefit. Mentor

teachers can enhance their practice as well, which was evidenced in the study conducted

by Gunckel and Wood (2016). For instance, the researchers explained that "the

colearning tasks supported mentors in increasing their familiarity with principles of

inquiry science teaching" (p. 116). Additionally, when PSTs and in-service teachers work

in the same classroom setting, this is a collaborative opportunity for both. Through the

2:1 co-teaching model for PSTs, Tschida et al. (2015) reported opportunities for

collaboration and developing collaborative skills as a benefit according to in-service

teachers.

   In addition to benefits to the multiple adults in the classroom (i.e., pre- and in-

service teachers), the presence of PSTs in a K-12 classroom can also result in improved

student outcomes and other benefits to students. In a study with 56 early childhood PSTs, Arrington and Lu (2015) reported significant gains on student performance for a pre-post assessment. The unit of instruction designed and implemented by the PSTs was brief, ranging from three to 10 days depending on where the PST was in their teacher preparation program. However, the researchers explained that the kindergarten through fifth grade students with whom the PSTs worked, "were benefitting from preservice teachers' instruction and demonstrating significant improvement over their pretest scores" (Arrington & Lu, 2015, p. 17). In addition to academic achievement gains, PSTs have worked with students in classrooms resulting in other student benefits. In Helfrich's (2012) study, which was primarily intended to prepare PSTs for teaching reading in their own classrooms, a benefit to students in the classroom was an increased opportunity to practice their reading and "to experience reading as an exciting activity in which they look forward to engaging" (p. 41). More opportunities for differentiation was also a noted benefit of having multiple adults in the classroom (Tschida et al., 2015), and is one characteristic of rigorous curriculum.

Challenges. While misalignments between personalities of multiple adults (i.e., PSTs and in-service teachers) can be a challenge (Tschida et al., 2015), a challenge can also occur if PSTs become overly-dependent on a peer or mentor teacher. Specifically, this was a concern of mentor teachers in the 2:1 co-teaching approach to teacher preparation since they worried about how well-prepared PSTs would be to lead their own classroom due to shared responsibility between pre- and in-service teachers when implementing this model (Tschida at al., 2015).

Although these are potential challenges that might be associated with multiple

adults in the classroom, specifically when PSTs work with in-service teachers, the

benefits outweigh potential drawbacks. Not only are future educators able to work with

experienced teachers in a collaborative setting, this also allows characteristics of rigorous

curriculum (i.e., opportunities for differentiation and student engagement) to be

implemented with greater ease. Furthermore, this can help to address challenges of

enacting rigorous curriculum, such as collecting data and concerns regarding a lack of

time, since there are two adults to share instructional and/or non-instructional

responsibilities.

Classroom volunteers. A final group of multiple adults addressed within this

literature review is classroom volunteers, including parents, as well as other volunteers

such as university students.

Parent volunteers. While the phrase "parental involvement" encompasses more

than parents serving as classroom volunteers (Benson et al., 2008; Jeynes, 2012; Turney

& Kao, 2009), this is one aspect often associated with parental involvement. As such, in

this section, I describe benefits to parental involvement and classroom volunteering, as

well as factors that influence volunteering, and associated challenges.

Benefits to parental involvement and volunteering. Two main benefits to parental

involvement within classrooms include opportunities for parents to share their expertise

and that they can serve as an additional resource to support teachers in instructional and

non-instructional tasks. To increase instances of parental classroom support, Bingham et

al. (2011) recommended providing opportunities for parents to volunteer in classrooms.

While the researchers noted that not all parents might be able to volunteer, they cited

potential benefits to parent volunteers as a reason to encourage this practice. In addition to supporting teachers and working with students, one benefit of having parent volunteers in the classroom is that they can bring their expertise to the students within the classroom. The researchers explained "[p]arents often have areas of expertise, such as foreign language knowledge, trade or craft skill, musical or artistic talents, or a job that is unusual or possibly relevant to the classroom theme that would be interesting to other children" (p. 321). This can serve as a learning opportunity for students and highlights the benefit of expertise of content knowledge when implementing rigorous curriculum. While a challenge to implementing rigorous curriculum might be a teachers' lack of content-area expertise, parent volunteers can bring a range of expertise to the classroom to foster, support, and encourage student gifts and talents.

Additionally, and perhaps more commonly, when parents volunteer in the classroom, they are serving as an additional resource in the classroom. Hornby and Witte (2010) cited "the wide range of activities in which parents were involved" (p. 31) in their study on primary school parent volunteers in New Zealand. This benefit to parent volunteers was echoed in additional research in which it was noted that parents assisted in instructional tasks, non-instructional tasks, and sometimes both. For instance, the recommendation by Bingham et al. (2011) for parents to share their expertise was instructional in nature, with the researchers noting that this is dependent on the knowledge and comfort level of the parent volunteer. In another New Zealand-based study, researchers collected data on parent perspectives regarding volunteering (Zhang, Keown, & Farruggia, 2015). The main categories of volunteering included volunteering within kindergarten classrooms, on field trips, and through fundraising. While field trips

and fundraising represent non-instructional tasks, participant descriptions of their role as volunteers within the classroom itself also suggested that these participants were mainly involved in non-instructional roles (Zhang et al., 2015).

On the other hand, several studies reported findings of parent volunteer tasks which consisted of both instructional and non-instructional tasks (Christianakis, 2011; Hornby & Witte, 2010; Lewis et al., 2011). In their study of 21 elementary schools, parents served as classroom resources, or volunteers, in instructional and non-instructional capacities by:

> listening to pupils read (15 schools); other help in the classroom (11 schools); preparing teaching materials (five schools); helping on class trips (13 schools); helping on school camps (four schools); helping with sports coaching (nine schools); assisting with road crossing patrol before and after school (five schools); helping in the school library (three schools); helping in the school canteen (three schools); and, acting as guest speakers (three schools). (Hornby & Witte, 2010, p. 31)

In another study, Christianakis (2011), referred to parents as "help labor" (p. 165) to describe parent volunteers since they were often placed in the role of a classroom TA by the classroom teacher. However, there were examples of engagement in non-instructional tasks such as making copies, cleaning up, and organizing materials, in addition to parents tutoring students and leading centers (Christianakis, 2011). Benefits to parent volunteers addressed several challenges of implementing a rigorous curriculum, but also presented challenges, especially in relation to factors that influence or inhibit parental involvement and volunteering.

Factors that influence parental involvement and associated challenges. Factors that influence parental involvement include those factors that can encourage and allow for parents to be involved and volunteer, as well as barriers and challenges parents experience that could hinder them from volunteering. For instance, while bringing new expertise to a classroom was a potential benefit to parent volunteers, if parents lack, or perceive that they lack, the necessary skills and/or knowledge to volunteer and be involved within a classroom setting, this could influence their decision whether or not to volunteer. In an effort to encourage parents to become involved with student literacy in both the home and school environments, Bingham and colleagues (2011), cautioned educators to "be sensitive to parents' level of comfort with such activities and provide them with adequate support in learning how to manage large groups of children" (p. 322). This recommendation suggests that parents may not be familiar with or confident in their ability to engage in and facilitate the tasks which they have been asked to by teachers and this is something to which teachers must be aware. In another study, parents expressed the ability or skill to assist within a school; however, there were other involvement factors that served as barriers (Bartel, 2010). Additionally, if parents are unaware of opportunities to volunteer, this clearly hinders their ability to become involved as suggested by Hornby and Witte (2010) and Lewis et al. (2011). Therefore, knowledge of volunteer opportunities also serves as an important factor in parental involvement.

As evidenced as an involvement factor in the study by Bartel (2010), parents must consider the time and resources that will be required of them before serving as a parent volunteer. For instance, poor timing and issues with transportation were noted challenges faced by parents related to parent involvement in a study conducted by Turney and Kao

(2009). According to Christianakis (2011), all of the involvement factors "required parents to be available, generous, and flexible with their time" (p. 165). Furthermore, the "help labor" parent volunteers engaged in was considered "essential for teachers to accomplish curricular goals…work that was worthy of pay; that is, work that at other schools is typically done by teacher assistants or paraprofessional staff" (Christianakis, 2011, p. 165). Researchers have also examined parental involvement factors of CLD parents. In their study examining the role of a popular parent involvement model in a high-minority, high-poverty school, Bower and Griffin (2011) explained that "schools need to consider differences in cultural norms by race/ethnicity and socioeconomic status in order to use parent involvement effectively as a strategy for student success" (p. 79). Though focused on parental involvement generally, rather than volunteering specifically, this work highlights a component that could influence parental involvement when it comes to serving as another adult in a classroom setting through volunteering. Hornby and Witte (2010) explained that if parents are from a school system where their involvement is not expected or was not the norm, they are less likely to engage in parental involvement activities such as volunteering.

Being aware of the benefits, as well as potential challenges and barriers to parental involvement and volunteering, is important to consider when working with multiple adults such as parents in a classroom, as in the Project Kaleidoscope system. Additionally, the amount of research on parental involvement was extensive; however, there were a number of studies that did not parse out volunteering specifically or focused specifically on volunteering and/or parents being in the classroom setting only minimally. As such, gaining a greater understanding of the roles of parents volunteering (i.e., their

actions and interactions) within a classroom is an area in which more research is still needed.

Other volunteers. Another group of adult volunteers that must be mentioned are university students who are not necessarily part of a teacher preparation program. Rahill et al. (2017) explored benefits to fourth-grade students and university athletes involved in a mentoring program in which university student-athletes visited the classrooms each week to discuss "the college experience" (p. 291), engaged in classroom activities with the students, and worked with students individually or in small groups. University students reported positive influences of the program and classroom teachers reported positive impacts on the students in their class regarding hard work, confidence, and behavior (Rahill et al., 2017). Furthermore, the elementary students indicated they learned more about college preparation and college generally, as well as hard work (Rahill et al., 2017).

A second example of university students working with in-service teachers to support students was in the study conducted by Goebel et al. (2009), through a partnership to support teachers' inquiry-based science instruction, while also providing the university students with teaching experience. Together, the pair of adults worked for three to four hours per week during which they "were instructed to work as science paraprofessionals with the teachers, helping to lead classes in hands-on activities from the assigned kit or in other exercises. The intent was that the teacher and science partner would facilitate science lessons together" (Goebel et al., 2009, p. 242). Despite the researchers noting that the classroom teachers frequently would "hand off responsibility for lessons to the science partner" (p. 242), teachers reported improved self-confidence

and attitudes in regard to teaching science. In this program, the university students were seen as experts in science (Goebel et al., 2009), reducing one challenge of implementing a rigorous curriculum for instructors, and worked with the classroom teacher and students frequently over an extended period of time. Again, this suggested that the amount or frequency of time in which the multiple adults engage in the classroom setting is an important factor, as well as the benefit of having a content-area expert to support instruction in a primary science class.

Chapter Summary

This chapter was focused on three major areas of literature relevant to this research study: underrepresented populations within gifted education, rigorous curriculum, and multiple adults in shared classroom settings. In the review, it is evident that the issue of underrepresented populations in gifted education is a national, as well as state and local issue. Although there have been efforts to remedy this negative trend, this is still a concern within the field of gifted education. One potential approach to addressing this persistent issue is by utilizing a rigorous curriculum to foster talent development of gifted students and students with gifted potential, including students from traditionally underrepresented populations. As such, characteristics of rigorous curriculum were described, along with challenges associated with designing and enacting rigorous curriculum. While such curricula can pose challenges to high-quality implementation, having multiple adults in a shared classroom may serve as one approach to specifically address these challenges. Therefore, in the last part of this literature review, I described the different roles or "actors" who can serve as additional adults in a classroom, along with intended benefits, challenges, and other related factors. Through

this review I have addressed the major components of this research study, which is

intended to provide a greater understanding of the actions and interactions of multiple

adults in a shared classroom while students' gifts and talents are fostered through the

implementation of a rigorous, literacy-based curriculum.

Chapter 3: Methodology

To address both the macro and micro problem of practice regarding multiple adults within classrooms generally, and within Camp Kaleidoscope specifically, the purpose of this study was aimed at examining the role of multiple adults involved in the SI. This allowed me to analyze adults' varying roles as part of Camp Kaleidoscope to support students' varied learning needs when implementing a rigorous curriculum designed to foster students' talent development. As such, I sought to answer the following research questions through this study, as they apply to Camp Kaleidoscope.

(1) What are the actions of the multiple adults?

    a. Two teachers

    b. Parent volunteers

    c. Student-teaching assistant

(2) In what ways do the various multiple adults (as indicated in Question 1) interact with each other and with students?

(3) What patterns emerge between the actions and interactions of adults and students as they relate to the daily lessons/curriculum that make(s) up Camp Kaleidoscope?

In an effort to address these questions and gain a greater understanding of the roles of multiple adults in the classroom, this chapter describes the study design that was

employed, study site and participants, data sources and methods for data collection and analysis, trustworthiness, and role of the researcher.

Study Design

For the purposes of this research study, the design that was employed was that of a descriptive case study to allow me to describe and analyze the role of multiple adults within the context of Camp Kaleidoscope at one elementary school. According to Rossman and Rallis (2017), researchers employ case studies "to understand a larger phenomenon through intensive examination of one specific instance" (p. 91). It is important to consider the interaction between a study design and the paradigm from which the study is approached. This research design was well-aligned to that of a constructivist/interpretivist paradigm, as were my stated research questions. Therefore, I employed an interpretivist paradigm to draw from as a way of gaining greater understanding of the phenomenon of multiple adults in a classroom setting (Lincoln, Lynham, & Guba, 2011). This paradigm supported my goal of examining the role of multiple adults within the context of Project Kaleidoscope, since Creswell (2014) explained that "[t]he researcher's intent is to make sense of (or interpret) the meanings others have about the world" (p. 8). Furthermore, Creswell (2014) noted that this paradigm is typically associated with qualitative research, making the research design for this study well-aligned to the purpose of this study. This design was also well-aligned to my stated research questions as I sought to describe the actions and interactions of the various adults involved in Camp Kaleidoscope. Finally, a case study design occurs within a bounded system (Merriam, 1998; Miles, Huberman, & Saldana, 1994), and the idea of bounded systems was strongly aligned to the conceptual framework described in Chapter

1 which exists within the Project Kaleidoscope system. In the remainder of this chapter, I describe the processes that were employed as part of this research study.

<div align="center">**Context of the Larger Study: Project Kaleidoscope**</div>

As a response to the need for continued research to address the issue of underrepresented student populations in gifted education, Moon et al. (2015) proposed Project Kaleidoscope. The researchers stated "the goal to serve students from diverse cultural and socioeconomic backgrounds is fundamental to the purpose of gifted education" (Moon et al., 2015, p. 1). However, they also noted that risk factors often serve as barriers to gifted identification and services for underrepresented populations in elementary school "such as [a] lack of school readiness following inequitable preschool and early home experiences" (Moon et al., 2015, p. 1). In response, they offered three solutions which formed the basis of Project Kaleidoscope to address barriers associated with underrepresentation in gifted education. These solutions included: (1) implementing a literacy-based curriculum and providing instruction as a means to recognize and nurture talent, (2) providing educators with learning experiences to support their understanding of literacy and talent development, and (3) fostering the connection between home and school (Moon et al., 2015). Through funding from the United States Department of Education (USDOE), the researchers are currently in the fourth year of the five-year grant to meet their stated goals which include:

> (1) To increase primary teachers' capabilities to identify and nurture potential giftedness in under-represented populations in the area of literacy and reading (preK-2); (2) To increase the reading achievement of all students, including under-represented students preK-2; and (3) To increase the number of under-

represented students identified for gifted program services (Moon et al., 2015, p. 9).

These goals reflect the importance of fostering gifted and talented potential in students from an early age and providing students from underrepresented populations in gifted education an opportunity to further develop these gifts and talents through rigorous curriculum and academic experiences (Callahan, 2005; Tomlinson, 2005). In the sections that follow, I describe the project design, including the chosen site.

Project Kaleidoscope Intervention Model

To meet the aforementioned goals of Project Kaleidoscope, the intervention for the five treatment schools included a three-pronged approach consisting of online PD modules for teachers, parent nights, and a two-week SI for students identified as having gifted potential. The intervention model is graphically depicted in Figure 3.1. The focus of this Capstone was on the enactment of the literacy-based curriculum in the SI; therefore, the SI component of the project design is described in the remainder of this section.

Summer intersession (SI). The two-week, half-day SI called Camp Kaleidoscope took place at each of five school sites, although the specific context of this study was limited to Willow Elementary School (WES; pseudonym). Students (rising first- and second-graders) identified by the larger research project as having gifted potential were invited to and subsequently attended the SI. Specifically, students who were identified and invited to the SI were those who had a discrepancy in standardized assessment scores, scoring low on a literacy-based assessment and high on a non-verbal assessment. Inviting students who had this scoring discrepancy to the SI was a way to identify
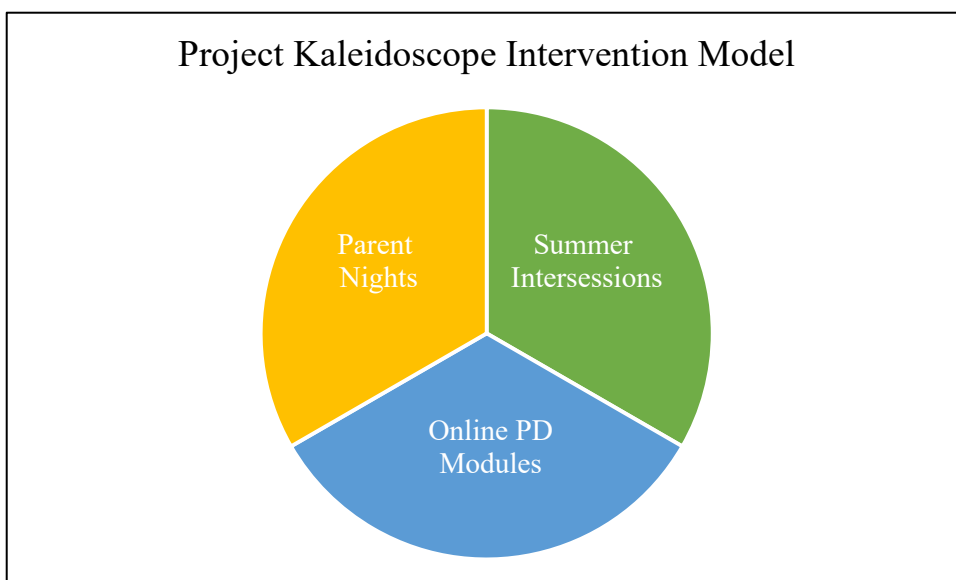
Figure 3.1. Three- pronged Project Kaleidoscope intervention model, consisting of parent nights, online PD modules, and summer intersessions.

students with gifted and talented potential who might not be identified as having such potential in traditional approaches to gifted identification. Two teachers from each of the school sites implemented the curriculum which was created by members of the Project Kaleidoscope research team. Additionally, students' parents were invited to serve as "literacy assistants" (Moon et al., 2015, p. 12) and the teachers had the option to have the additional support of a student-teaching assistant.

SI curriculum. The first SI took place in Summer 2017 with a curriculum that was literacy-focused while incorporating elements of science. For Summer 2018, which was the focus of this Capstone study, a new literacy-based curriculum was created by members of the research team through an iterative process of idea generation, lesson creation, and feedback from members of the Project Kaleidoscope team, as well as external reviewers. This ensured that students who were eligible for and attended both Camp Kaleidoscope in Summer 2017 and 2018 were engaged in two different curriculums, both of which supported literacy and talent development. Furthermore, the

SI curriculum included all of the various characteristics associated with academically-challenging, rigorous curriculum as described in Chapter 2.

The 2018 SI curriculum was guided by two universal, or enduring, understandings and was aligned throughout the eight-day curriculum. Specifically, the Enduring Understandings which guided the entire curriculum were: (1) A good story is emotionally compelling and satisfying. And (2) Good stories make us feel something. Within the lesson plan book itself, alignment between these Enduring Understandings and individual lessons was clear in that each day of the SI had a different topic, along with aligned objectives (i.e., KUDs) and essential questions that related back to the overarching goals of the curriculum unit and were identified at the start of each lesson. An example from Day 5: Dramatic Events: The "Uh-Oh" Moment is depicted in Figure 3.2. The curriculum

Camp Kaleidoscope
Day 5: Dramatic Events: The "Uh Oh" Moment

Background

So far, children have explored character traits, settings, and have been introduced to dramatic events. We will revisit the concept of dramatic events today—highlighting them by referring to them as *"uh oh" moments*. Today children will find the "uh oh" moment in a previously read story, *Knuffle Bunny*, and will also brainstorm other "uh oh" moments to use in their own stories.

Today's Anchor Charts: All previous anchor charts, especially *Dramatic Events: Challenges, Obstacles, and Problems*

Understandings	Essential Questions
U1: Good stories need a dramatic event (i.e., an "uh oh" moment). **U2:** Every individual has a unique perspective; therefore, everyone can make a valuable contribution.	**EQ1:** How does a series of events become a good story? **EQ2:** How can I work well with others?
Knowledge	**Skills**
K1: Definition of *dramatic event* **K2:** Contribution is an element of collaboration	**S1:** Identify dramatic events in the form of challenges, obstacles, and/or problems **S2:** Create a story using a dramatic event **S3:** Work collaboratively, each making a unique contribution

Figure 3.2. Learning objectives (i.e., KUDs) and Essential Questions were identified at the start of Day 5 of the SI lesson and align to the overarching understandings of the "Once Upon a Time…" curriculum.

also included opportunities for differentiation, as well as authentic experiences that were intended to engage students while fostering students' gifted and talented development,

demonstrating characteristics of rigorous curriculum. Throughout the SI there were opportunities for differentiation and engaging experiences during Center B: The Storytelling Center, which was a place for students to create stories in a number of different ways (e.g., drawing, writing, building) and record themselves telling their stories. On the second day of the SI, directions for this center included having children choose how they would create their story, a story-starter teachers might use to support students in this task, and the suggestion to interview students with possible prompts. An image of this activity taken from the curriculum is included in Figure 3.3.

Center B: Storytelling Center 10:50 – 11:10 11:15 – 11:35	Materials Recording equipment Paper (white, construction, newsprint) Markers, crayons, colored pencils Glue sticks Stickers Blocks Mini-figures Children's folders Children's puppets Relevant anchor charts

Purpose
The students will continue adding to their story "anthology" today. This center is a place for students to capture a collection of stories so that students can find their voices and share with others. Today, children will have the opportunity to elaborate on a character trait, likely an inside trait.

Children will select a character trait from the anchor chart or their own Inside/Outside Traits poster. Using the materials provided, ask children to draw or write (or otherwise create) a story that best demonstrates that trait. You may want to model this by sharing a story of your own. For example, *Sometimes I am helpful. Once upon a time, I found a lost dog in my neighborhood. I took him home, and I called the phone number on his tag. I was able to find the owner and return the dog to the owner. This made the owner and the dog very happy, and I felt very helpful.* Explain that when it is their time to record, they will have a chance to share their own stories. Once children begin working, you will create a recording for each child. You can use a story starter (such as the one below), to help children record their segments:

Today I am going to tell you about a time when I was _____. Once upon a time....

Alternatively, you can interview the children:
Remember when we used our eyeball puppets and made our posters yesterday? I want you to tell me about a time when you exemplified a trait. Do you want to tell me about when you were brave? Scared? Helpful? Kind? Silly?
What trait are you going to tell me about today?
Great! So tell me a story about a time you were _____.

Add or refer to relevant anchor charts.

Project Kaleidoscope   24
Summer 2018

Figure 3.3. Directions for the Storytelling Center from Day 2 of the SI curriculum. These directions highlight the opportunities for differentiation within the curriculum, as well as opportunities to engage students.

Additionally, instances of authentic instruction were included throughout the curriculum, such as making connections between tasks in which students were engaging and different professions, including authors/writers and puppeteers. For an overview of the entire 2018

Camp Kaleidoscope Curriculum, see the "Curriculum Overview" and "At-A-Glance" curriculum excerpts (Appendix A).

  Multiple adults involved in Camp Kaleidoscope. In addition to the curriculum, other important aspects of Camp Kaleidoscope, as well as another input within the Camp Kaleidoscope process, were the individuals involved in the SI, with a focus on the multiple adults participating in Camp Kaleidoscope. As such, this Capstone research study and the overarching system of Project Kaleidoscope were connected via the intersection of multiple adults in the classroom as depicted in Figure 3.4.
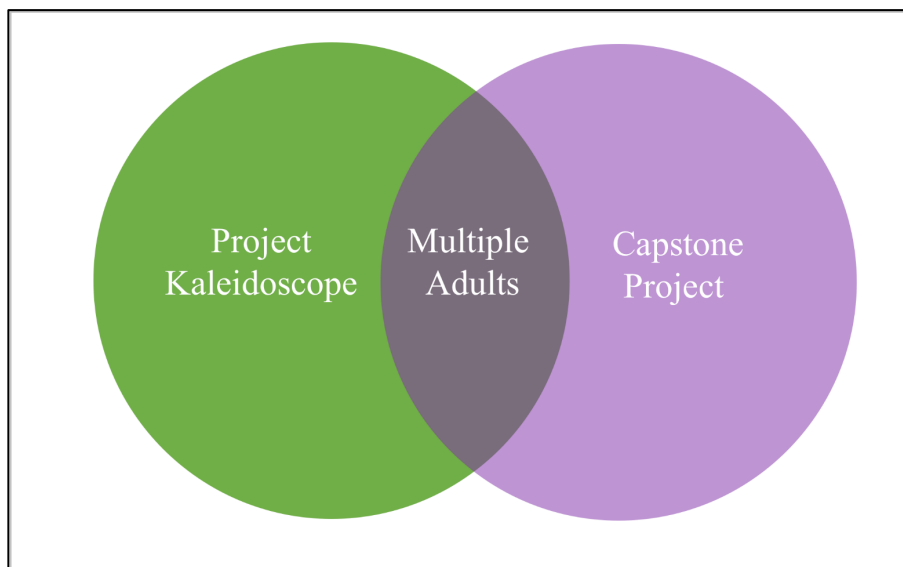
Figure 3.4. Intersection between Project Kaleidoscope and this Capstone project. This depicts the role of multiple adults within this Capstone and the larger research study.

Before delving into the specific details of the Capstone research study that was conducted, background information regarding the SI and incorporation of multiple adults will be further explained in this section. The structure of Camp Kaleidoscope and the intervention model proposed by Moon et al. (2015) called for the SI to have two teachers from each school site along with parent assistants to be involved in the camp. Furthermore, each teaching pair had the option to have an additional assistant in the form

of a high-school or college-aged student helper, who will be referred to as a "student-teaching assistant." Information regarding the various multiple adults involved in Camp Kaleidoscope are detailed in the following sub-sections.

   Teachers' role in and preparation for Camp Kaleidoscope. Based on the design of the project intervention, one major aspect of planning the SI included determining two teachers from each of the five school sites who would participant in Camp Kaleidoscope and implement the SI curriculum. Once two teachers from each site were identified, members of the Project Kaleidoscope research team designed and conducted a two-day teacher training, a component within the boundaries of the Project Kaleidoscope system, to prepare the teachers for implementing the Summer 2018 curriculum. The training provided the teachers an opportunity to familiarize themselves with the underlying assumptions of Project Kaleidoscope regarding gifted and talented development, explore and interact with the curriculum, prepare materials that would be used during the curriculum (i.e., anchor charts), and begin to prepare for curriculum implementation with their teaching partner. Approximately four weeks after the teacher training, members of the research team met with teachers at their individual school sites to deliver camp materials. This was an opportunity for the teachers to sort through materials, review the curriculum, and ask any questions they might have.

   The following week Camp Kaleidoscope began with teachers implementing the "Once Upon a Time…" curriculum to rising first- and second-graders identified as having gifted potential, many from underrepresented populations. Throughout the eight, half-day lessons that took place in July 2018, two teachers at each school site implemented the curriculum in which students engaged in a variety of activities that

encouraged conversation, play, and collaboration as they listened to, created, and shared stories.

Parents' (i.e., literacy assistants) role in Camp Kaleidoscope. In addition to having two teachers implement the curriculum at each of the school sites, another component of the intervention model included an opportunity for the parents of camp attendees to participate and served as a way to foster the home-school connection. Specifically, parents of children selected to attend Camp Kaleidoscope were invited to participate as a camp assistant for one of the eight days of camp. This participation was optional and those who chose to participate received a $30.00 Visa gift card as a show of appreciation for their involvement in the project. Furthermore, it was noted that "no experience is necessary" and that this was an "opportunity [to] participate in your child's talent development camp!" This information, along with a Parent Assistant Sign-up Sheet (Appendix B), was included as part of the Summer 2018 Invitation letter. A copy of this letter was printed in Spanish and English and was distributed to students eligible to attend Camp Kaleidoscope. Once parent assistant forms were returned with dates they would be able to participate, members of the research team organized a schedule and disseminated this information to parents so they would know which day to attend Camp Kaleidoscope as a "literacy assistant" (Moon et al., 2015, p. 12). Several weeks before the SI, reminder letters were sent home to all parents with the dates and times of Camp Kaleidoscope, as well as a reminder for those parents who signed up to serve as volunteers.

Student-teaching assistants' role in Camp Kaleidoscope. Lastly, as part of the design of Camp Kaleidoscope, teaching partners were given the option to have a student-teaching assistant in the form of a high-school or college-aged assistant to provide

additional support to teachers, as well as students throughout Camp Kaleidoscope. If the teachers opted for a student-teaching assistant, they were teacher-selected, and were given the option to work all eight days of the SI, receiving compensation for their time.

Project Kaleidoscope Site

The site in which the overarching research project is currently taking place is a large, rural school district, Fairview Public Schools (FPS; pseudonym) (Anonymized School District, 2018). Within the school district, there are 11 elementary schools, five of which are serving as treatment sites for the larger study and six schools serving as control sites. Of the five treatment sites, four were accredited for the 2017-2018 school year and one was deemed partially accredited (VDOE, 2018). The remaining six control schools were all accredited. For the treatment schools, data regarding total student enrollment ranged from less than 300 students (Tupelo Elementary) to more than 500 students (Birch Elementary and Poplar Elementary) and are displayed in Figure 3.5. In Figure 3.6, free and reduced price lunch (FRPL) data are displayed highlighting that the total FRPL% in Fairview Public Schools (26.58%) was considerably less than all of the treatment schools participating in Project Kaleidoscope. Finally, demographic data for the five school sites are presented in Table 3.1.
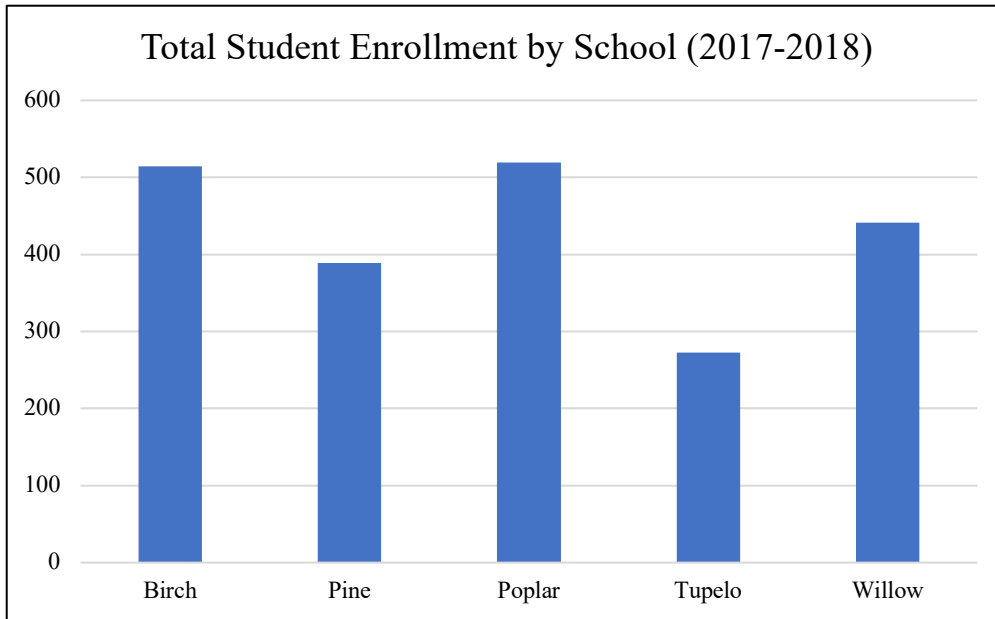
Figure 3.5. Student enrollment data for treatment sites in Fairview Public Schools. (Note: All school names are pseudonyms.)
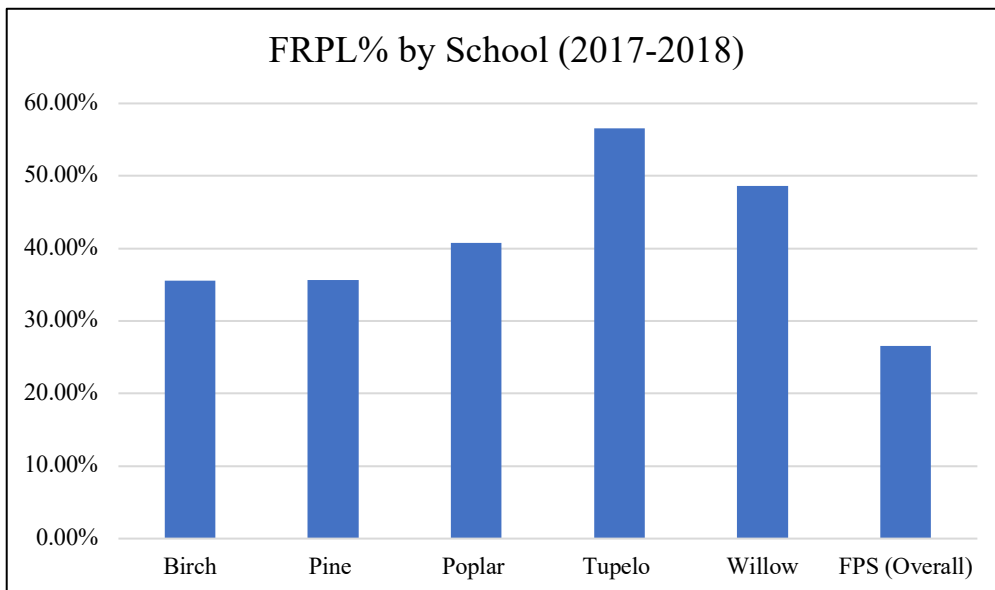
Figure 3.6. FRPL data for treatment sites in Fairview Public Schools.

Table 3.1
Demographic Data for Treatment Sites in Fairview Public Schools

	Birch	Pine	Poplar	Tupelo	Willow	Total
Hispanic/ of any race	80 (15.56%)	46 (11.83%)	83 (15.99%)	108 (39.56%)	124 (28.12%)	441
American Indian/ Alaska Native	4 (>1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4
Asian	9 (1.75%)	3 (>1%)	1 (>1%)	1 (>1%)	2 (>1%)	16
Black or African American	90 (17.51%)	36 (9.25%)	47 (9.06%)	16 (5.86%)	17 (3.85%)	206
Native Hawaiian/ Pacific Islander	0 (0%)	1 (>1%)	0 (0%)	0 (0%)	0 (0%)	1
White	293 (57%)	283 (72.75%)	352 (67.82%)	131 (47.99%)	264 (59.86%)	1323
Two or more races (Non-Hispanic)	38 (7.39%)	20 (5.14%)	36 (6.94%)	17 (6.23%)	34 (7.71%)	145
Total	514 (100%)	389 (100%)	519 (100%)	273 (100%)	441 (100%)	2136

Note: Percentages reflects demographic makeup of school.

Current Capstone Study

Capstone Site and Participants

Sampling. While the larger research study is still currently taking place within five elementary schools in Fairview Public Schools, the site selected for this research study was Willow Elementary School (WES). This site was chosen for three reasons: To begin, as a researcher on the larger project team I had familiarity with the school site itself and with some teachers from the school. Specifically, I have helped to facilitate parent night sessions at this school in which many K-2 teachers were present, conducted classroom observations, and administered Kaufman Brief Intelligence Test (KBIT) assessments to students during the regular academic year. I also conducted observations for five days of the eight-day SI in 2017 at this site. As such, I was familiar with the one teacher who participated in Camp Kaleidoscope 2017 and who returned for the 2018 SI. Familiarity with the site itself and one of the SI teachers suggested I would have a greater

ease of access in conducting the research since the teachers were likely to be willing participants and would prevent fewer access issues regarding gatekeepers (Creswell, 2014). In this regard, the site and participants were chosen as a convenience sample because it was believed that the teachers would be willing participants (Creswell, 2014). However, this site and these participants were not only chosen as a matter of convenience.

Data from across the five schools for the 2017 SI revealed considerable variation regarding the roles of multiple adults and the ways they acted and interacted with one another. The 2017 teaching pair from WES was one example of a teaching partnership that appeared to work together frequently, interacting with one another to support their teaching partner and the students. Ultimately, one teacher from the 2017 SI returned and the other was new to the SI. However, both teachers were second-grade teachers at WES prior to the SI. As such, they had been part of the same grade-level team and had experience working and planning with one another. Additionally, there was a student-teaching assistant at this site and a parent volunteer signed up for everyday of the eight-day intersession making this an ideal setting for exploring the roles of multiple adults in the SI classroom.

Site. In the 2017-2018 school year, Willow Elementary School was fully accredited and had 441 students enrolled in grades PreK-5. The total FRPL % for the school was 48.66%, nearly double the percentage of the FPS school system, which was 26.58%. The majority of students at the school identified as white, with Hispanic students of any race making up the second largest demographic group in the school. Demographic data for the entire school is represented in Figure 3.7.

Willow Elementary School Demographic Data

Legend:
- Hispanic/ of any race
- American Indian/ Alaska Native
- Asian
- Black or African American
- Native Hawaiian/ Pacific Islander
- White
- Two or more races (Non-Hispanic)
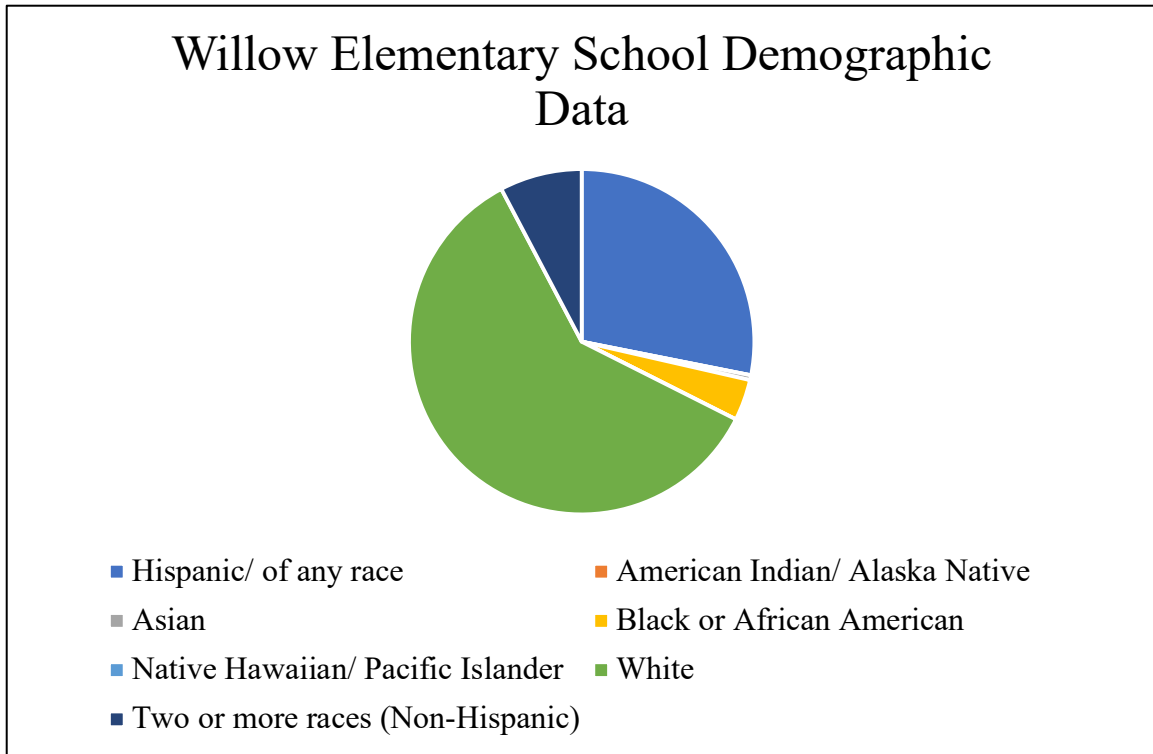
Figure 3.7. Demographic data for students attending Willow Elementary School during the 2017-2018 school year.

Participants. The primary participants for this study were the two teachers who were responsible for implementing the 2018 Camp Kaleidoscope SI curriculum. Although this study was aimed at the actions and interactions of multiple adults, the two teachers were the primary focus of the study since there was data on them in regard to all data sources (to be explained in detail in the following section). While the teaching partners served as the primary study participants, I also drew upon information gleaned from other adults (i.e., parent volunteers and the student-teaching assistant) involved in Camp Kaleidoscope. This aided me in developing a strong understanding of the roles of multiple adults involved in the SI in addition to classroom teachers, including, actions, interactions, and potential patterns that emerged between and among the multiple adults and the SI curriculum.

The teachers who implemented the 2018 SI at WES were Amanda Little and Lauren Skyes (pseudonyms). Amanda Little was a returning Camp Kaleidoscope teacher with more than 10 years of classroom teaching experience. Although she had experience teaching in several different grades at the elementary level, she is currently a second-grade teacher at WES. Lauren Sykes has taught elementary school for 17 years and has most recently been a second-grade teacher. However, in the 2018-2019 school year, she assumed a new role at WES—that of the school's Instructional Technology Resource Teacher (ITRT).

The role of parents during the SI was to serve as "literacy assistants" (Moon et al., 2015, p. 12), with the expectation of "assisting the teacher as well as to provide an avenue for parents to be engaged in modeling positive literacy practices (e.g., preparing learning centers, listening to students read, modeling fluent reading, taking about texts, tutoring)" (p. 12). While eight parents had initially signed-up to volunteer as literacy assistants, two ended up not being able to volunteer and one parent who was not originally signed-up to volunteer, did. Therefore, a total of seven volunteers over six of the eight-days of the SI served as literacy assistants and ancillary participants for the scope of this research study.

Lastly, a student-teaching assistant, Jada—a high-school student at one of the high schools in FPS, was another ancillary participant involved in this study. The 2018 SI was Jada's second experience with Camp Kaleidoscope as she served as the student-teaching assistant for all eight days of the 2017 SI at Willow Elementary. This provided Jada with experience of working with Camp Kaleidoscope generally and demonstrated a prior relationship with Ms. Little who had also been involved with the 2017 SI. Jada's

role as student-teaching assistant allowed for an additional teacher support, who, like the teachers, was intended to be a fixed presence during the SI.

Data Sources and Data Collection

Multiple data sources were analyzed for this study as a way to increase credibility of the research findings through triangulation (Rossman & Rallis, 2017). Specifically, data sources included observations from Camp Kaleidoscope 2018, interviews with the two SI teachers and informal discussions with ancillary participants, and document analysis examining the curriculum books of the two teachers. These data sources and information regarding data collection are described in the remainder of this section.

Observations (Archival). As described previously, Camp Kaleidoscope 2018 was an eight-day, literacy-centered summer intersession in which students with gifted potential (identified by the larger research study) were invited to participate. Since the camp occurred during the 2018 SI, the data examined for this research study were archival. Guided by an observation protocol template for focus and consistency, which included a space to record the adults present for that day of the SI (Appendix C), I collected observational data from WES for all eight-days of the SI. Therefore, although data were archival, a noted study limitation that is explored in the last chapter, I was the consistent observer and collector of data for this SI site employing a lens toward multiple adults to the observational data I collected. It is important to note that I adhered to the established observation protocol that was used by other members of the research team at different school sites to guide my observational field notes (Appendix D). Specifically, this protocol included recording observational data about the classroom environment, deviations from materials as indicated in the curriculum, instruction including "notable

interactions," assessment and data use, read-alouds, student work including images of student creations, and observer reflections.

Each camp session was scheduled for three hours (from 9:00 a.m. until 12:00 p.m.), four days a week (Monday through Thursday) and took place between July 16, 2018 and July 26, 2018. I arrived at WES each morning 15-30 minutes prior to the start of camp, and typically stayed 15-20 minutes after the camp ended. During this additional time, which still took place within the bounds of the Camp Kaleidoscope process, I took notes about the classroom environment, engaged in (and later summarized) informal conversations with the teachers and other adults involved in camp, and observed the actions and interactions of the multiple adults involved in camp. Therefore, observational data collection consisted of approximately 27-28 total hours over two consecutive weeks. Additionally, at the end of each day of the SI, I reflected on the events of the day. Specifically, I recorded two voice memos for each day of Camp Kaleidoscope—one for the SI generally and one that was specifically focused on the topic of multiple adults.

Then, I finalized my observation notes for each day of the SI, adding additional details in the form of observer reflections and memos which were transcribed by a professional transcription service. Once the memos were professionally transcribed, I listened to the audio recording while reading the transcribed text to ensure the accuracy of the transcription and added these memos to the end of the finalized observation notes for each day of the SI. Final observation data was uploaded to a secure UVa Box account that only members of the research team can access.

Interviews (Archival). During the duration of Camp Kaleidoscope 2018, I conducted three formal interviews at WES—one with each of the teachers regarding

multiple adults as part of Camp Kaleidoscope and an exit interview with both Ms. Little and Ms. Sykes about Camp Kaleidoscope more generally. Additionally, I engaged in informal discussions with the various adults, including teachers, the student-teaching assistant, and several parent volunteers throughout the SI. The following sub-sections detail the interviews, along with corresponding processes used for data collection, and informal discussions in more detail.

Multiple adults interviews. In addition to observational data, I collected interview data from the two teachers at WES regarding multiple adults in the classroom throughout Camp Kaleidoscope. I conducted two interviews regarding multiple adults in the classroom, one with each of the SI teachers. I intentionally conducted these interviews with the two teachers separately so both teachers had an opportunity to share their beliefs regarding multiple adults without being influenced by a response from or the presence of their teaching partner. For instance, if one teacher did not prefer working with their teaching partner, or preferred working with other adults over this particular teaching partner, they would likely not feel comfortable expressing this in front of that teacher. By conducting this interview separately, the teachers were able to more freely share their thoughts and beliefs regarding multiple adults in shared classroom settings. Furthermore, this served as an opportunity to obtain confirming or disconfirming evidence since I was able to compare responses between both teachers, along with observational data, strengthening the trustworthiness of my study and research findings. The focus of these interviews included: how multiple adults interacted in the classroom, the participants' beliefs on multiple adults being present in the classroom, and the participants' background related to teaching generally and teaching with multiple adults specifically.

The interviews took place on Days Six (July 24, 2018)—Ms. Little—and Seven (July 25, 2018)—Ms. Sykes—of the SI so that the two teachers had an opportunity to interact with various adults and reflect on the SI experience itself when responding to interview questions.

Prior to conducting the interviews, I created a semi-structured protocol (Appendix E) that guided the interview and aligned to the three main areas of focus for the interview. Once I drafted the protocol, the principal investigator (PI) of the larger research team provided feedback on the protocol. I revised the protocol based on the feedback I received, resulting in an updated interview protocol that I used when conducting interviews with the two teachers separately. Prior to conducting the interviews, I gained permission to audio record the interview and did so using two devices. I assured both participants that once the interview was transcribed the audio recording would be deleted. Throughout the interviews with each teacher, I had a hard copy of the revised interview protocol that I used to take notes on during the interview and to ensure that all relevant topics were discussed. The interview with Ms. Little lasted approximately 44 minutes and the interview with Ms. Sykes lasted approximately 48 minutes. At the conclusion of each interview, I thanked participants for their time, reminded them that they could contact me if they had further questions, and reiterated that the data obtained from the interview would be stored in a secure online platform that only members of the research team would be able to access. After both interviews, I audio recorded a reflection based on the interview. The audio recordings of the interviews and corresponding reflections were transcribed by a professional transcription service. Once the transcriptions were returned, I listened to the audio recordings while reading the

transcriptions to ensure their accuracy, making additional reflective comments as appropriate. Then, the interview data was uploaded to a secure UVa box account.

Exit interview. The third and final formal interview that was conducted took place after the completion of the final day of Camp Kaleidoscope 2018 (July 26, 2018). This interview was conducted with both SI teachers at the same time, which was the process followed at all five treatment schools. Since this exit interview was part of the larger research study and interviews were being conducted with all five teaching pairs at the different treatment schools, the same exit interview protocol was utilized (Appendix F). Although the protocol itself was similar to the protocol utilized as part of Camp Kaleidoscope 2017, several changes had to be made to the protocol to account for modifications to the curriculum and other components of camp (e.g., a switch from a classroom word web to anchor charts). Based on feedback from the PI of the larger research project, I assisted another member of the research team in making these edits to the interview protocol prior to interviews being conducted.

As the research team member present at WES, I conducted the exit interview with Ms. Little and Ms. Sykes at WES at the conclusion of Camp Kaleidoscope 2018. The interview itself focused on the curriculum and camp generally, the students who attended the SI, ways the teachers collected and used data, and what the teachers learned from the SI. The interview with the two teachers lasted 93 minutes; I obtained permission to audio record the interview, using two devices to ensure that I captured the interview data. After the interview, the audio recording was professionally transcribed. Once I received the transcribed interview, I listened to the audio while reading the transcribed text to ensure accuracy and added in clarifying comments so that when I (or another member of the

research team) re-visited the data at a later time, the meaning would be clear. Currently, this interview data is being stored in the secure UVa Box platform and can only be accessed by members of the research team.

Informal discussions with other adults. Although not formal interviews, I did have opportunities to engage in informal discussions with other adults involved in the SI. For instance, Jada, the student-teaching assistant, and I regularly engaged in conversation prior to and after students left WES. These included conversations about the curriculum itself, logistics regarding implementation of a particular activity, as well as observations she made during the lessons. Furthermore, I also spoke with three of the seven parent volunteers after the conclusion of the lesson for which they had volunteered. Due to logistical issues related to scheduling, I was not able to engage in discussion with all seven parent volunteers. While the discussions I did have varied by individual, I focused the conversations on the Camp Kaleidoscope experience for the literacy assistants' child and their experience as a parent volunteer. Summaries of these conversations were included within the observation write-up for the day and I reflected upon these conversations as part of the multiple adults reflective memo I created at the end of each day of the SI.

SI curriculum and lesson plan books (Archival). The final data sources I collected and analyzed as part of this Capstone study included the SI curriculum itself and teacher-annotated lesson plan books that housed the intersession curriculum. As a member of the research team, I already had access to a copy of the 2018 SI curriculum. Additionally, each of the 10 teachers representing FPS and implementing the SI were provided with a hard copy of the SI curriculum, "Once Upon a Time…" approximately

four weeks prior to Camp Kaleidoscope 2018. Prior to and throughout Camp Kaleidoscope, both Ms. Little and Ms. Sykes annotated in their lesson plan books by highlighting certain portions of text, writing notes in the margins, and placing sticky notes with writing throughout the curriculum book. As such, this was a valuable data source to learn about the actions of the teachers and to consider potential patterns that might emerge between their actions and interactions, especially as they related to the curriculum content.

At the end of the SI, I requested the teacher copies of the curriculum books to more closely examine the teachers' annotations. Both Ms. Sykes and Ms. Little granted me this permission and gave me their curriculum books on the last day of the SI. These were stored and are currently residing in a locked cabinet. Approximately four weeks after the end of the SI, the teachers' lesson plan books were scanned and the digital copies were uploaded to UVa Box, a secure location that can only be accessed by members of the research team.

Together, the field notes from Camp Kaleidoscope, transcripts of the three formal interviews and informal discussions with other participants, SI curriculum, and teacher-annotated curriculum books made up the data sources that were collected and analyzed for this Capstone research study on multiple adults. The alignment between the data sources and the research questions that guided this project are depicted in Table 3.2.

Data Analysis

Data analysis for this research study took the form of two phases of qualitative coding using the qualitative analysis software, MAXQDA. The coding process is an important aspect in organizing data (Bazeley, 2013) and, similar to indexing, "is a

reference to a place in the original source where you can find relevant material" (p. 127).

According to Bazeley (2013), coding actually goes a step beyond indexing since it is easy

to analyze data by topic, or code. As such, the two phases of coding that comprised data

analysis are described in the following sections.

Table 3.2
Alignment between research questions and data sources

Research Question	Data Sources		
	Observation	Interview	Document Analysis

(1) What are the actions of the multiple adults?
    a. Two teachers
    b. Parent volunteers
    c. Student-teaching assistant
	✓	✓	✓

(2) In what ways do the various multiple adults (as indicated in Question 1) interact with each other and with students?	✓	✓	
(3) What patterns emerge between the actions and interactions of adults and students as they relate to the daily lessons/curriculum that make(s) up Camp Kaleidoscope?	✓	✓	✓

Descriptive codes. As an initial step, I used descriptive codes to analyze the

aforedescribed data. Miles et al. (2014) explained that descriptive codes typically consist

of a word or phrase and serve as a way to index and categorize data. By engaging in

descriptive coding during the first-round or phase of coding, I immersed myself within

the data while organizing it into more manageable chunks. Because of my familiarity

with the data, described in the data collection section earlier in this chapter, along with

my knowledge gleaned from the research, and the conceptual framework which this study

was grounded upon, I engaged in a deductive approach to analysis by using a priori codes

for this initial round of coding and data analysis (Appendix G). This list of a priori codes

served as my codebook, which Bazeley (2013) referred to as a tool "that assists the lone

coder in being consistent in the application of codes" (p. 139) in which a researcher

operationalizes the codes they will be using. I received feedback from a critical friend

from the larger research project on my codebook prior to data analysis to ensure clear

operationalization of codes in an attempt to ensure coding consistency (Bazeley, 2013).

Specifically, this critical friend reviewed and provided feedback on my a priori code list

twice prior to me using this code list to begin coding collected data. Once the codebook

was finalized, I imported it, along with all of the data sources previously described, into

MAXQDA where I engaged in descriptive coding of all of the data using said a priori

code list. During this initial coding stage, I was open to the possibility of emergent (i.e.,

inductive) codes, ultimately, adding one code (embedded curriculum support) early on in

this stage of coding. This first phase or stage of coding took place over the course of

several weeks and resulted in approximately 2,800 segments of coded data.

Pattern codes. Once I completed the first phase of coding in which I

descriptively coded the data, I began the process of a second-round of coding, using what

Miles et al. (2014) call pattern codes as an approach to analytic coding. As such, this

second round of coding served as a means for me to delve further into the data as I began

to determine patterns and/or themes present in the data. The codes used in this round of

data analysis came directly from the first-round of coding. To arrive at these codes, I

reviewed analytic memos I had created during the initial round of coding in MAXQDA

and outside of the software in a Microsoft Word document (described in the next

section). As I read through the various memos, I looked for repeating ideas, or patterns,

in the data. Once I composed my code list for this round of data analysis, I shared it with my critical friend who then provided me feedback. I made revisions based on feedback and also met with my critical friend in person to discuss the revisions and any questions I had or explanations I wanted to share regarding the revised code list. Once the finalized code list for this second round of coding was complete (Appendix H), I imported the codes and corresponding definitions into MAXQDA and completed a second round of coding for all of the observational and interview data. This stage of coding resulted in approximately 1,100 segments of coded data.

Analytic memos. During both rounds of coding, I recorded analytic memos in two different forms. An analytic memo is "a brief or extended narrative that documents the researcher's reflections and thinking process about the data. These are not just descriptive summaries of data but attempts to synthesize them into higher level analytic meanings" (Miles et al., 2014, p. 95) and can be "personal, methodological, and substantive" (p. 96). The first were memos that I created within MAXQDA. I selected segments of data and then created a corresponding memo based on my thinking regarding said data. Since I created memos in MAXQDA during both rounds of coding, I was able to map my memos onto the codes if there was a connection or relationship between the code and the memo or I could create the memo to stand alone and simply reflect my thinking on the data. By composing analytic memos as I engaged in the initial phase of descriptive coding, I was able to record my thoughts such as the importance of a particular chunk of data, questions that might arise, connections between data and/or codes, which in turn, supported me in later analysis (Bazeley, 2013). Specifically, once I had completed the first round of data analysis, I reviewed the memos I had created in

MAXQDA. I then created a separate document in which I summarized the memos and later used this document to inform my code list for my second round of coding. The use of analytic memos continued to aid me throughout the second round of coding, as I began to arrive at research findings. Similar to the memos recorded during the first stage of coding, I created memos in MAXQDA in which I recorded any questions, reflections, and connections I was making.

Furthermore, in addition to recording analytic memos and connecting them to specific excerpts of data in MAXQDA, I periodically recorded analytic memos outside of the software analysis program as a way to organize my thinking throughout this research study. Additionally, this allowed me to make sense of and further analyze the data during both rounds of the coding process and throughout data analysis generally. As compared to the memos recorded within MAXQDA, these memos were longer in length (usually several pages) and were more general in nature since they were not connected to specific segments of data. During the second round of coding (i.e., pattern coding), I recorded memos to summarize what I was finding for each observation and interview. This included frequency counts and summary of data for each of the 10 second round codes. As I continued to hone and revise my research findings, I returned to these memos frequently, making additional notes and identifying patterns that were consistent across the entirety of the eight-day SI. Through this process of recording memos during data analysis, I added to, revised, and finalized my research findings that will be presented in the next chapter.

Trustworthiness

Rossman and Rallis (2017) explained that the goal of a research study is that it should be useful, and for this, it must be trustworthy. Therefore, it was critical for me to maintain trustworthiness throughout this study to present findings that were trustworthy and of value. Throughout this study, I took several measures to ensure the trustworthiness of this research. First, I drew from multiple data sources (i.e., observations, interviews, and curriculum books), as a way to triangulate my findings. Second, I sought feedback from members of the larger research team at various points throughout data analysis. For instance, prior to conducting the interviews with multiple adults, the research team PI reviewed and provided feedback on my interview protocol which I then revised prior to conducting the interviews. Additionally, I had a peer reviewer (i.e., critical friend) examine and provide feedback for both of my code lists. Once I had written and organized my findings by research question, I met with my critical friend again. Together, we discussed the research findings and she gave me feedback, which included making suggestions, asking clarifying questions, and extending my thinking further.

Another aspect of this study that supported my trustworthiness as a researcher was the thick, rich description in the observation field notes and the accompanying reflections that were recorded after observations and interviews were conducted. Lastly, I kept a methodological log to track data collection of observations and interviews for the SI and continued to maintain this methodological log throughout this study. Furthermore, as previously described, I recorded analytic memos as a way to track my thinking during data analysis.

Ethics. In addition to the factors described previously, Rossman and Rallis (2017) explained "an unethical study is not a trustworthy study" (p. 51), making this an important component to a study's trustworthiness. Since this study took place within the scope of a larger research project, IRB approval was already obtained. Furthermore, the scope of this research project fell under the category of "business as usual," and as such there were no anticipated risks to the participants. Even though there were no anticipated risks, I used pseudonyms for the names of participants and places to maintain confidentiality. Lastly, I maintained participant confidentiality and ensured the security of all data sources through the use of a secure UVa Box account and a password-protected computer.

Researcher's Role as Instrument

Researcher reflexivity. In addition to trustworthiness, it was also important for me to consider my own experiences and how this had the potential to influence my role as a researcher throughout this qualitative study. Currently, I am a doctoral student at a large, R1 university. Prior to working toward my doctorate, I earned a master's degree in gifted education; therefore, I am personally interested in research related to gifted education and the larger project of which I am a part. I have been a member of the aforedescribed research project, Project Kaleidoscope, for more than two and a half years. As such, I am familiar with the FPS district and the five treatment school sites, having been in all of the schools on multiple occasions.

I am a former teacher and, more specifically, a teacher who has experienced teaching in a setting in which multiple adults were present. My own teaching experience was at the high school level where I was a regular education English Language Arts

(ELA) teacher. Over the course of three years, I worked with four different teachers who pushed into my 9th and 11th grade ELA classroom to provide additional support for students with Individualized Education Plans (IEPs). Based on the definition of co-teaching described in Chapter 2, these professional partnerships were not examples of co-teaching. Furthermore, because I worked with a different person each year (and two people over the course of one year), I did not have an opportunity to continually build on-going relationships with these other adults. Therefore, while my own experiences of working with multiple adults resulted in what I consider to be missed opportunities, I have also witnessed successful groupings of multiple adults working in shared classroom spaces, such as during the 2017 SI. Understanding and acknowledging these factors and experiences was important as they had the potential to shape my analysis of the data. Therefore, it was important that I took steps to not let potential biases influence this study and I attended to this by establishing trustworthiness as previously described.

Researcher as instrument. As a member of the Project Kaleidoscope research team, I observed and reflected upon the implementation of Camp Kaleidoscope 2017 while observing at three different school sites over the eight-day SI. Additionally, I interacted with the observational data throughout the 2017-2018 academic year through qualitative analysis (i.e., coding) and in the service of disseminating research. During this most recent iteration of Camp Kaleidoscope, I was the research team member who collected observational data and conducted the exit interview at WES during the 2018 SI. As previously described, my collection of research was guided by both observation and interview protocols (Appendix D-F) and I recorded reflective voice memos that became part of the data sources.

Chapter Summary

I began this chapter by re-stating the purpose of this study and the research questions addressed as a way to situate the research methods I undertook for this study. I described the study design and research paradigm that aligned with said design and the posed research questions. Then, I described the context of the larger study, Project Kaleidoscope, and detailed the site and participants for this Capstone study. After, I explained the archival data sources that I used and the methods for data collection, followed by an explanation of the two-stage coding process I engaged in as part of data analysis. Finally, I described how I made efforts to ensure trustworthiness of this study, as well as my role as the researcher. In the following chapter, I detail the findings from this research study.

Chapter 4: Findings

The purpose of conducting this research study was to examine the actions and interactions of the multiple adults in varying roles in a shared classroom setting. On a large, or macro, scale, there have been calls for more research to be conducted regarding multiple adults, including in the areas of co-teaching (Embury & Kroeger, 2012; Friend et al., 2010) and parental involvement (Walker et al., 2011). Additionally, I sought to address a micro problem of practice by conducting this study—learning more about the roles of multiple adults (i.e., two teachers, parent volunteers, and student-teaching assistant) during Camp Kaleidoscope, a two-week summer intersession (SI) for primary-aged students identified as having gifted potential. One of the goals of Project Kaleidoscope, the larger system in which the process of Camp Kaleidoscope exists, is to increase the number of primary-aged students from traditionally underrepresented populations within gifted education (Moon et al., 2015). The intersession was an opportunity for students with gifted potential, many from underrepresented populations in gifted education, to engage in learning experiences to support their gifted and talented development through the vehicle of a rigorous, literacy-based curriculum implemented by multiple adults. As such, in conducting this research study, I aimed to develop a greater understanding of the role of multiple adults in conjunction with rigorous curriculum during Camp Kaleidoscope and provide recommendations to the larger system of Project Kaleidoscope regarding future intersessions. Therefore, the following research questions,

all of which relate to the Camp Kaleidoscope SI, were addressed as part of this research study:

    (1) What are the actions of the multiple adults?

        a. Two teachers

        b. Parent volunteers

        c. Student-teaching assistant

    (2) In what ways do the various multiple adults (as indicated in Question 1) interact with each other and with students?

    (3) What patterns emerge between the actions and interactions of adults and students as they relate to the daily lessons/curriculum that make(s) up Camp Kaleidoscope?

In the remainder of this chapter, I discuss the findings from this Capstone study based on the aforementioned research questions. Specifically, I discuss the actions of multiple adults during the SI, followed by interactions between and among adults and students, and lastly, I discuss patterns between the multiple adults in the SI as they relate to the enacted Camp Kaleidoscope curriculum.

Actions of Multiple Adults during Camp Kaleidoscope

As mentioned, one of the reasons Willow Elementary School was selected as the site for this research study was because of the involvement of a student-teaching assistant, along with a parent volunteer signed up for each day of the SI, in addition to the two teachers from WES. During the course of Camp Kaleidoscope at WES, the two teachers were present all eight days of the SI, seven parents volunteered over the course

of six days of the eight-day SI, and the student-teaching assistant was present for five of eight days. Table 4.1 depicts the various multiple adults present over the course of the SI. To gain a greater understanding of the roles of multiple adults during Camp Kaleidoscope, it is first important to describe their actions during the SI. Throughout the eight-day SI, adults engaged in tasks which included leading and supporting instruction, providing non-instructional support, and observing instruction. Table 4.2 provides an

Table 4.1
Adults present at WES during Camp Kaleidoscope 2018

	Ms. Little	**Ms. Sykes**	**Parent Volunteer**	**Student-teaching Assistant**
Day 1	X	X	X	X
Day 2	X	X		X
Day 3	X	X	X	X
Day 4	X	X	X	X
Day 5	X	X	X	
Day 6	X	X		
Day 7	X	X	X (2; 1 arrived late)	
Day 8	X	X	X (arrived late)	X (left early)

Table 4.2
Excerpt from Appendix I: Overview of Actions of Multiple Adults

		Ms. Little	Ms. Sykes	Parent Volunteer	Student-teaching Assistant
Day 1	Pre-lesson	blue, purple	blue, purple		purple
	Opening Circle	blue, purple	blue, purple	yellow	purple, yellow
	Read-aloud	blue	blue, purple	yellow	gray
	Whole group Activity	blue, purple	blue, purple	blue, yellow	blue, purple
	Snack	blue, purple	blue, purple		purple
	Centers	blue	blue, purple	yellow	blue, purple
	Closing Circle	blue	blue	gray	purple
	Closing	purple	blue, purple	gray	purple
	Post-lesson	blue, purple	blue, purple		purple

Key: ● = instructional, including support; ● = non-instructional support; ● = observing instruction; ● = action not indicated, unclear; empty box = not present

overview of the actions of the various multiple adults from Day 1 of the SI broken down by curricular activity (e.g., Read-aloud, Whole group activity, Centers). As depicted in Table 4.2, it is evident that on the first day of Camp Kaleidoscope both teachers were responsible for instruction, including supporting instruction, and non-instructional support. The table also demonstrates the parent volunteer was not present prior to or after the conclusion of the lesson and served as an observer during four activities. Lastly, it can be noted that the student-teaching assistant served in an active role, engaging in non-instructional support for nearly every aspect of the lesson, with the exception of the Read-aloud. Additionally, see the "Overview of Actions of Multiple Adults" chart detailing actions of multiple adults over the entirety of the SI (Appendix I). In addition to an overview of the actions of multiple adults during Camp Kaleidoscope, data analysis resulted in two research findings regarding the actions of multiple adults during the 2018 SI at Willow Elementary School. Specifically, the findings are:

1. The primary adults (i.e., the two teachers) had equal opportunities for leading and supporting instruction and engaged in shared instruction.

2. Secondary adults (i.e., parent volunteers and the student-teaching assistant) served in one of three roles: observer, non-instructional support, and instructional support.

In the remainder of this section, I describe these research findings in more detail, along with examples from data collected to support said findings.

Finding 1: The two teachers had equal opportunities for leading and supporting instruction and engaged in shared instruction.

The two Camp Kaleidoscope teachers, Ms. Little and Ms. Sykes, led, supported, and shared instruction throughout the 2018 SI. Specifically, they both acted in instructional and non-instructional capacities, planned and enacted a shared approach to instruction, and utilized common co-teaching approaches.

Teacher tasks throughout Camp Kaleidoscope. As depicted in Table 4.2 and Appendix I, the two teachers engaged in instructional and non-instructional capacities. Their instructional duties included leading instruction, facilitating discussions, working with small groups of students, collecting student data, providing feedback to students, scaffolding instruction as needed, and supporting or assisting other adults leading instruction. When asked about the tasks and responsibilities of multiple adults involved in the intersession, Ms. Little began by describing the role of the two teachers stating,

> Obviously our task was to follow the instructions in the curriculum guide. Our main task was to make sure we're asking certain questions and kind of going along with the essential questions of the day and implementing the activities. That was for the teachers. (Interview with Amanda Little, July 24, 2018)

This explanation highlights the teachers' responsibility for leading instruction and facilitating discussions. While a major aspect of the teachers' role during the intersession was to enact the curriculum, they also served in non-instructional capacities. These included completing clerical tasks, utilizing management strategies, addressing behavior and behavior management, and assisting other adults and students in any other necessary non-instructional capacitates. Table 4.3 includes examples of non-instructional actions of the teachers throughout Camp Kaleidoscope.

Table 4.3

Non-instructional Actions of Teachers during Camp Kaleidoscope

Action	Example(s) from Observation Data
Clerical tasks	Ms. Sykes makes extra copies of a form for students to take home (Observation field notes, SI Day 4) During snack time, Ms. Little stores student work inside their individual folders (Observation field notes, SI Day 6)
Management strategies	Prior to students breaking off to add to anchor charts around the room, Ms. Sykes institutes a rule that there should be no more than three people at a poster at a time so that too many students are not at the same poster at any given time (Observation field notes, SI Day 3)
Behavior management	**Ms. Sykes:** Mac and cheese The students "freeze" when she says this. **Ms. Sykes:** Thank you for looking at me, that shows me you're listening. If you can hear me, touch your nose. Touch your puppet's nose. The students then begin to transition from snack time to centers. (Observation field notes, SI Day 2)
Other, non-instructional	Ms. Little helps to tie a student's shoe before they leave for the day (Observation field notes, SI Day 1)

A shared approach to instruction. In addition to teachers' actions, which were a combination of instructional and non-instructional in nature, the teachers also implemented a shared approach to instruction. Throughout the intersession, Ms. Little and Ms. Sykes took a shared approach to instruction, whether that meant switching the role of "lead" and "support" teacher or jointly delivering instruction to students. For instance, Figure 4.1 is an excerpt from Ms. Sykes' lesson plan book for the Opening Circle on Day 1 of the SI. In addition to highlighting task directions and placing a sticky note with a written reminder to herself on the page, Ms. Sykes wrote a note demonstrating the teachers' shared approach to instruction: "Lauren does name game w/

Amanda." Furthermore, Ms. Sykes confirmed this shared approach to instruction during

her interview regarding the roles and tasks of the two teachers during the intersession.

> So, she'd take one part of the activity at Camp Kaleidoscope and then I might take
> another part. For example, she might do the opening circle and then we'll switch
> off and I might take over the read aloud. Sometimes, we would do parts together,
> especially the project parts and we'd just kind of jump in… (Interview with
> Lauren Sykes, July 25, 2018)

In this example, Ms. Sykes described the idea of taking turns when leading instruction

and explained that the two teachers would deliver joint instruction at times.
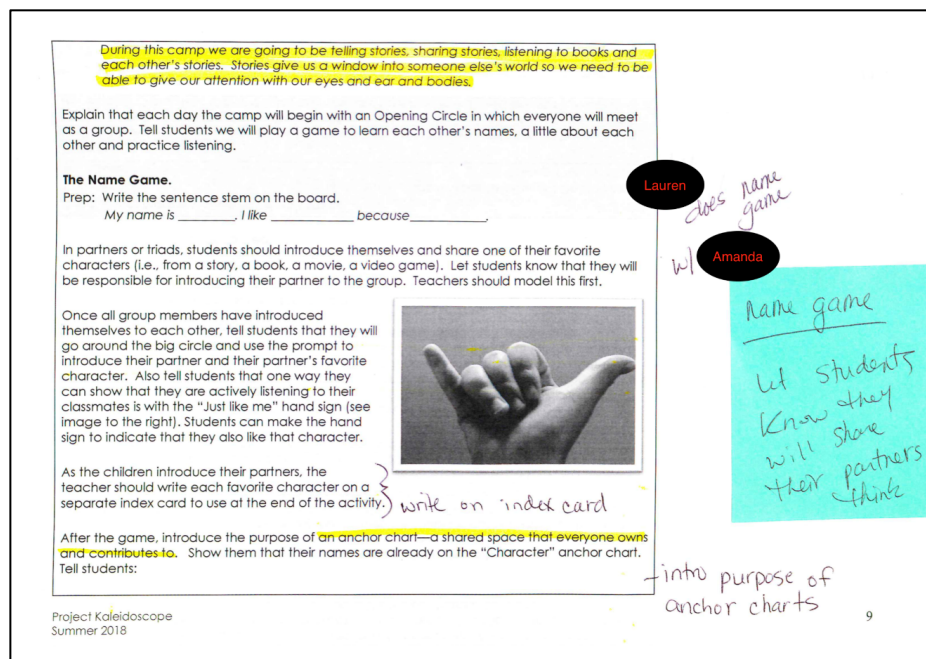
Figure 4.1. Image from Ms. Sykes' curriculum book depicting shared approach to instruction with Ms. Little.

Throughout the SI, there were some curricular activities in which the teachers

took turns leading instruction, such as during the daily read-alouds for Days 1-6.

However, for other activities, the teachers remained consistent in their tasks. Specifically,

Ms. Little was responsible for leading "Center B: The Storytelling Center," while Ms.

Sykes implemented "Center A: Other Center," throughout the SI. When asked how they

chose to divide responsibilities, Ms. Sykes explained, "the storytelling center/Center B

kind of built on from the previous day. So, we decided it was easier because she [Ms.

Little] kind of already knew what had happened the day before," (Interview with Lauren

Sykes, July 25, 2018). As such, even when the teachers divided instruction with each

being responsible for one center, they demonstrated a shared approach to instruction.

There were also numerous instances when the two teachers acted in flexible ways

throughout much of camp, adapting easily from one role or task to the next (e.g., leading

instruction to supporting instruction or vice versa), suggesting a shared approach to

instruction. In the following vignette, the teachers demonstrated this flexibility by taking

turns leading a discussion and explaining directions for a whole group activity.

> After the second round of the obstacle course, Ms. Sykes asked students what
> they thought of this task. She asked if it was harder than the first round where
> they were simply tasked with completing the course. She continued by asking the
> group if they felt frustrated because it was hard, but the students do not say they
> felt this way. She then tells the group they will go through the course one more
> time and this will be the hardest round yet. Ms. Sykes tells the students to listen to
> Ms. Little as she describes what the students will do next. Ms. Little describes the
> next part of the task, which includes modeling with Ms. Sykes how one partner
> will give directions and the other will go through the obstacle course blindfolded.
> (Observation field notes, SI Day 4)

In the above example, both teachers had an opportunity to lead instruction. Although this

flexibility of shifting roles and responsibilities was not always demonstrated (e.g., during

centers), the teachers demonstrated a shared approach to instruction by taking turns

leading instruction, as well as delivering joint instruction.

Commonly enacted co-teaching approaches. The teachers also engaged in

common co-teaching approaches throughout Camp Kaleidoscope. Specifically, these

included: one teach/one observe, one teach/one assist, station teaching, and team

teaching, with the one teach/one assist approach being used most often. Although co-

teaching is operationalized in different ways as was detailed in the review of literature, it is noteworthy that both Ms. Sykes and Ms. Little referred to their teaching partnership during Camp Kaleidoscope as co-teaching. In the interviews conducted with the teachers separately, each referenced the idea of co-teaching.

> **Ms. Little** explained: "…right after the kids would leave, we would go through and spend 45 minutes or whatever going through [the curriculum]… and we kind of assigned. 'You do the opening today and then…', but we always co-teach." (Interview with Amanda Little, July 24, 2018)

> **Ms. Sykes** said: "I know Ms. Little and I just kind of did a co-teaching…" (Interview with Lauren Sykes, July 25, 2018)

Additionally, Ms. Sykes explained that she and Ms. Little "did a lot of tag teaming" (Interview with Lauren Sykes, July 25, 2018). An example of this "tag teaming" was evidenced by their frequent implementation of the one teach/one assist approach to co-teaching. Since this approach is often seen as less complex to implement, it was perhaps unsurprising that this was frequently utilized. Furthermore, the teachers implemented this approach during various aspects of the curriculum (i.e., Opening Circle, Read-aloud, Whole group activity, and Closing Circle), demonstrating this could be enacted with a variety of different curricular activities. Station teaching, however, was limited to when teachers were each leading instruction at different centers, which was well-aligned to a station teaching approach to co-teaching or shared instruction.

Team teaching, a more complex approach of co-teaching to implement, was also utilized. Often, this occurred when the teachers were facilitating a discussion with the whole group of students, with each teacher posing questions and building off of the other's comments/questions. In the following vignette, the two teachers implemented a team teaching approach to instruct students during the Opening Circle on Day 6:

After morning introductions, Ms. Little turns to the computer and begins to play a video clip of a story, "Dark, Dark Woods," stopping it mid-way through so students do not see how the story is resolved. Once paused, Ms. Little asks the students what happened and if they think this is where the story ends. Ms. Sykes then asks the class how they would feel if they did not get to see the rest of the video. After hearing several student responses, Ms. Sykes asks several additional questions such as, "Is it dramatic right now?" and if the character in the video has a problem, aligning her questions to the big ideas of the lesson. Ms. Little explains to the students that they are at the peak of the hill (i.e., story arc). Ms. Sykes says "let's see how this movie resolves itself," and the group watches the remainder of the video clip. (Observation field notes, SI Day 6)

The above vignette depicted the two SI teachers engaging in team teaching to deliver instruction to students, building off of student responses, as well as each other. In addition to examining the actions of Ms. Sykes and Ms. Little, parent volunteers and a student-teaching assistant were other adults involved in Camp Kaleidoscope at WES.

Finding 2: Parent volunteers and the student-teaching assistant served in one of three roles: observer, non-instructional support, and instructional support.

Like teachers Ms. Sykes and Ms. Little, other adults (i.e., parent volunteers and a student-teaching assistant) involved in the 2018 SI at Willow Elementary School served in instructional and non-instructional capacities. The actions of these ancillary participants, or secondary adults, are described in the remainder of this section.

Actions of parent volunteers. Parent volunteers most frequently served as observers and provided non-instructional support; however, there were instances in which parents provided instructional support as well. An overview of parent actions throughout the SI can be located in Appendix I. Typical non-instructional support provided by parent volunteers consisted of completing clerical tasks, addressing behavior and behavior management (this action varied based on individual parent volunteers and was frequently directed at the adult's own child), and assisting other adults or students in additional non-

instructional capacities (e.g., retrieving an ice pack for a student). When serving in the

role as instructional support, parent volunteers typically worked with small groups of

students or at centers and assisted another adult leading instruction.

Although there were seven parent volunteers who participated during the SI,

many of the actions in which they engaged were similar. In the following vignette, I

detail an example that represents typical parent actions during an activity in which

students worked in small groups.

> The parent volunteer for the day, Ms. Robin (pseudonym), is standing near her
> son as he and his partner work to complete their task. She watches the students
> work, at one point telling her son he is doing a good job but reminds him to "ask
> your partner what she thinks," an idea the teachers have reinforced several times
> this morning. The two teachers are circulating among the other groups and after a
> few minutes all of the students return to the class rug. After reviewing the read-
> aloud and providing students with additional directions, they return to their
> groups. During this time, Ms. Robin continues to interact with her son and his
> partner. Later, she stands at the back of the group of students and watches the
> teachers model the final step of the task. She assists the teachers when asked to
> pick-up some materials and later asks one of the groups about the story they
> created. (Observation field notes, SI Day 5)

In this activity, the parent volunteer acted as an observer during parts of the activity and

also provided support, both instructional and non-instructional, when overseeing a small

group of students working to complete various tasks. This was a typical example of

parent actions during Camp Kaleidoscope in that the parent had some opportunities to

support the teachers and students but was not constantly engaged in a task.

Teacher expectations and insight regarding parent volunteers. Ms. Robin's

actions appeared to align to the expectations of the two teachers. For instance, when

talking about the expectations of parent volunteers, Ms. Little said,

> For any parent volunteers, we kind of more just gave them the option to jump in
> and help students when they're working on the activities. We didn't give them a

set, like, "you have to do this." It was more just "help the kids when you feel like they need support." (Interview with Amanda Little, July 24, 2018)

While Ms. Little's explanation suggests a lack of specific directives provided to parent volunteers, she also voiced that working with parent volunteers can pose challenges. She explained, "…the parents are trickier because you don't know what they're comfortable with and this might be their first time they've ever seen a classroom like this if they've never volunteered before" (Interview with Amanda Little, July 24, 2018). Ms. Sykes expressed similar thoughts referring to parent volunteers as "helpers" and noted that "I do think at times the parents kind of were at a loss as to 'where should I be or what should I do?'" (Interview with Lauren Sykes, July 25, 2018). The idea of parent volunteers being unsure of what actions they should engage in was evident on the first day of the SI when the parent volunteer lingered in the doorway to the classroom for several minutes before entering the classroom (Observation field notes, SI Day 1). Throughout Camp Kaleidoscope, parent volunteers acted as observers, provided non-instructional support, and, at times, provided instructional support.

Actions of the student-teaching assistant. The final category of adult who participated in Camp Kaleidoscope at WES was Jada, a high-school student, who served as the student-teaching assistant for five days of the SI. Similar to parent volunteers, Jada provided support to teachers and students that was both instructional and non-instructional in nature, a detailed breakdown of which can be found in Appendix I. Unlike parent volunteers, Jada's role included additional tasks and responsibilities that parent volunteers rarely, if ever, engaged in. Instructional support she provided included working with small groups of students, collecting/recording student data, and assisting other adults leading instruction. She also provided non-instructional support which

consisted of the following: completing clerical tasks, addressing student behavior and

behavior management, setting-up and preparing tasks and materials prior to instruction

and cleaning up after instruction, and assisting other adults or students in any additional

non-instructional tasks as needed. Table 4.4 includes examples of non-instructional and

instructional actions Jada engaged in during the SI.

Table 4.4
Actions of the Student-teaching assistant during Camp Kaleidoscope

Action	Example(s) from Observation Data
Non-instructional	
Management	Prior to students arriving, Jada is writing sentence prompts on the board as the two teachers review the lesson for the day. (Observation field notes, SI Day 8)
Behavior and behavior management	Jada walks over to a student who has separated himself from the rest of the group and encourages him to participate. (Observation field notes, SI Day 3)
Instructional	
Working with small group of students or center	Students in Center A complete their activity early and transition to the Reading Center. A student selects the read-aloud book, *Marisol McDonald Doesn't Match*, and asks Jada to read this to her. The two sit on the rug as Jada reads the story out loud to the student. (Observation field notes, SI Day 3)
Collecting student data	A student finishes his task at Center B and goes to look at the settings designed the previous day. Jada has one of the clipboards the teachers are using to record data in her hand. She engages with this student, asking what he is doing. As the two continue to chat, she jots notes down on the data collection clipboard. (Observation field notes, SI Day 3)

It is evident Jada engaged in a variety of tasks to support teachers and students during

Camp Kaleidoscope. One difference between Jada's role as a secondary adult compared

to parent volunteers were her on-going experiences with Camp Kaleidoscope.

Jada's on-going experience with Camp Kaleidoscope. Jada had the benefit of an extended amount of time working as part of the SI, which allowed her to engage in more and varied tasks. When asked about Jada's role, Ms. Little said, "Jada is awesome," laughing, she continued to explain "She did it last year too and she takes initiative, so we actually didn't have to give her much direction" (Interview with Amanda Little, July 24, 2018). Ms. Sykes also used the word "initiative" to describe Jada's actions, explaining "she kinda just took initiative on her own…that's probably based on the experience that she had last year and she felt confident and knew what to kind of do" (Interview with Lauren Sykes, July 25, 2018).

Jada also had an opportunity to interact with the curriculum book itself. Each morning she reviewed the daily lesson prior to students' arrival, writing reminders to herself. For instance, next to the read-aloud section on Day 2 of the SI, she wrote "prepare for puppet making." Jada's use of the curriculum book was noted by both SI teachers who commented on how she used this as a reference tool to aid her in knowing what to do. Ms. Little explained this additional curriculum book was beneficial saying,

> She [Jada] would sometimes get there early and then she would look ahead of what's coming and jot down notes of what materials she needed, and she just had her own system.…Having that extra curriculum guide was super helpful for her because she just went ahead and just processed where to put stuff. We didn't really have to tell her much. (Interview with Amanda Little, July 24, 2018)

This suggests Jada's experience of working with Camp Kaleidoscope over an extended period of time, plus the support of having her own curriculum book, allowed her to take more action during the SI than she might otherwise have been able.

In this section, I described actions of the various adults involved in the 2018 SI at Willow Elementary School. In addition to actions of multiple adults, interactions must

also be considered when developing a greater understanding of the roles of multiple adults and ways in which they were involved during Camp Kaleidoscope. In the following section, I share findings regarding interactions of multiple adults during the SI.

Interactions of Multiple Adults during Camp Kaleidoscope

In an effort to develop a greater understanding about the various adults involved during Camp Kaleidoscope, I also examined interactions between and among the adults, as well as adult interactions with students. Through analysis of observation and interview data, I arrived at two research findings regarding the interactions of adults during Camp Kaleidoscope.

3. Interactions that took place between and among multiple adults and students varied based on two major components: (1) when the adults were interacting (i.e., before, during, or after instruction) and (2) who was interacting.

4. When interacting or working with other adults in a shared classroom setting, the two teachers voiced benefits, as well as challenges.

In the sub-sections that follow, I discuss each finding related to the interactions of adults during Camp Kaleidoscope.

Finding 3: Interactions varied based on two major components: (1) when the adults were interacting and (2) who was interacting.

Interactions outside of instructional time. Interactions that took place between and among the various adults involved in the SI outside of instructional time (i.e., before and after instruction) were noticeably different from those that took place during instruction. While some interactions before and after instruction were similar in nature, there were also noted differences. In the following sub-sections, I discuss typical

interactions between adults before and after instruction and describe commonalities and differences based on when interactions were occurring.

Interactions of adults before instruction. When adults (i.e., a combination of the two teachers and the student-teaching assistant) interacted before instruction, this was typically related to preparing for the daily lesson, including reviewing and discussing the day's lesson plan, making and discussing changes or deviations to the curriculum, and setting-up for activities or organizing materials for the day. Since parent volunteers and students were not present prior to instruction, interactions before instruction were limited to the two teachers and, when present, the student-teaching assistant.

The following vignette is a typical example of interactions that occurred between Ms. Little, Ms. Sykes, and Jada prior to instruction as they prepared for the daily lesson.

> Both teachers and Jada are at school preparing for the day by 8:20 a.m., giving them 40 minutes until students arrive. Ms. Sykes verbalizes to Ms. Little that she plans on reviewing the idea of active listening further today because she feels like she did not explain it as well as she could have the previous day and creates a visual to go with this. The teachers discuss the possibility of adding a rug to the reading center and Ms. Little goes to find one as Ms. Sykes continues to create the active listening poster. During this time, Jada is creating a poster at the easel for the "This or That" game that is part of the Opening Circle. Jada explains to the teachers how she used scotch tape for the blanks so this acts like a whiteboard. Ms. Little says, "You rock, Jada," and Ms. Sykes affirms this saying, "That's a good idea." Ms. Little describes how she and Ms. Sykes decided to add to Center A for the day so it is more involved and comparable to Center B. Then, Ms. Little exits the classroom to meet the students at the front of the school, followed later by Ms. Sykes. (Observation field notes, SI Day 2)

As evidenced in the above vignette, the two teachers and student-teaching assistant had opportunities to interact with each other before instruction. While some of this time was spent with adults working individually (e.g., Ms. Sykes creating the active listening poster), this was also an extended opportunity for them to interact with one another. As

such, this allowed for back and forth conversations in which plans were discussed, questions were asked (and answered), and ideas were shared.

As noted in the previous finding, Jada frequently supported the teachers by setting up and preparing materials for instruction. As such, interactions before instruction between Jada and the two teachers often related to organizing materials and clarifying information about activity set-up and preparation. One morning before instruction, Ms. Sykes asked Jada, "did we get those cards?" and Jada told her where the cards she had made for the Opening Circle were located (Observation field notes, SI Day 3). In another interaction, Ms. Little jokingly asked, "Jada, what are we doing today?" (Observation field notes, SI Day 4), implying that the teachers relied on Jada's support when preparing for instruction. This idea was further supported on the first day of the SI that Jada was not present, Day 5. Ms. Little explained since Jada was not going to be there, she and Ms. Sykes were figuring out the obstacle course for the Opening Circle themselves (Observation field notes, SI Day 5). The teachers then interacted with each other, thinking aloud as to the best way to set-up the "minefield" obstacle course. Without other adults present to provide support prior to instruction, the teachers' actions and interactions shifted to include a greater focus on preparing materials for the daily lesson as compared to previous days.

The interactions between the teachers prior to instruction were often related to reviewing the lesson for the day and vocalizing plans for curriculum implementation. For instance, prior to Day 7 of the SI, Ms. Little was moving anchor charts around the room for students' use as part of the whole group activity, vocalizing this to Ms. Sykes. Ms. Sykes then suggested that they provide students with a graphic organizer or string for

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students to use as they plan their stories. She also noted that the teachers had forgotten to continue adding to the anchor charts throughout the SI and that they could add to each of the charts to provide students with examples of different story elements (Observation field notes, SI Day 7). Again, these interactions occurred over an extended amount of time while the two teachers worked together to prepare for the day's lesson.

Although much of the teacher interactions prior to instruction were directly related to Camp Kaleidoscope and preparing for instruction, the teachers also engaged in conversations that were unrelated to the Project Kaleidoscope system. Examples of this included the teachers talking about their schedule for the upcoming school year (Observation field notes, SI Day 4) and how the teachers would be working together the following academic year to implement instruction Ms. Sykes referred to as "Genius Hour" (Observation field notes, SI Day 7). While not related to Camp Kaleidoscope, it is important to note that teacher interactions before instruction were not only limited to the SI. This demonstrates that the teachers had opportunities to and engaged in interactions with one another about topics that existed outside of Project Kaleidoscope prior to instruction. In addition to before instruction, adults who were present after instruction interacted with one another as well.

Interactions of adults after instruction. Adult interactions that were captured and took place after instruction included reflecting upon curriculum implementation, discussing students in the SI, and considering and planning for future instruction. One instance of such an interaction occurred at the completion of the first day of the SI. Following the camp closing on this day, Ms. Sykes and Ms. Little exited the classroom

with the parent volunteer and students while Jada worked to clean and organize materials.

The following vignette is an example of adult interactions after instruction.

> The teachers re-enter the classroom and Jada is still organizing materials and cleaning up after the day's activities. Ms. Little, a retuning Camp Kaleidoscope teacher, voices that the structure of the current SI is different from the previous year, explaining that she looked at the time at one point during the lesson and thought, "hey, we're actually on schedule." Ms. Sykes notes that they were off on the schedule, but not by much. She then goes on to explain that she feels she knows the second half of the curriculum better than the first. The teachers then begin discussing several students from camp, sharing with each other that one loves dinosaurs, and another who was initially hesitant to engage really enjoyed playing with stickers (during Center B). The teachers continue to talk, making a plan for snack time the next day, and discuss audio recording for Center B and collecting student permission slips. (Observation field notes, SI Day 1)

In the above vignette, the teachers discussed the next day's lesson, shared informal student data with each other, and expressed their thoughts and feelings related to instruction and the curriculum itself.

The teachers also interacted with each other when preparing for upcoming lessons at the end of each day. Ms. Little described these planning interactions stating, "What helped us was just to actually look at it the day before, because it was so much information to look at everything, so we just kind of looked a day ahead" (Interview with Amanda Little, July 24, 2018). She continued and explained how the teachers would determine who was responsible for leading certain activities, highlighting the fact that the teachers spent time after instruction discussing the lesson for the upcoming day.

Commonalities and differences outside of instructional time. Outside of instructional time (i.e., before and after instruction), interactions between and among adults involved in the SI had some commonalities, as well as differences. Since the two teachers and student-teaching assistant arrived at least 30 minutes prior to instruction and stayed after students left to prepare for the next day, this provided ample time in which

the adults could interact with one another. As such, they were able to engage in conversation over an extended period of time. Additionally, interactions between the two teachers before and after instruction included a focus on preparing instruction for the upcoming lesson. However, the nature of these preparations varied based on when they were taking place. Specifically, Ms. Little's description of the teacher's going through the lesson plan book after instruction suggests that the teachers prepared instruction for the next day by determining individual responsibilities for the upcoming lesson. Before instruction however, the teachers demonstrated a focus on lesson implementation and reviewed what it was that they would be doing specific different curriculum activities. As such, although the teachers interacted with each other before and after instruction to prepare for future lessons, it appears that the ways they prepared for instruction varied based on when they were interacting (before or after instruction). In addition to interactions that took place before or after Camp Kaleidoscope, adults also interacted with each other during instruction.

Interactions during instruction. When multiple adults interacted during instruction, this was either as part of instruction (e.g., modeling instruction for students, enacting co-teaching approaches) or asides during instruction (e.g., to "check-in" with another adult, ask questions, give tasks to other adults, or to seek or provide curriculum support). Unlike interactions before and after instruction, these interactions occurred between different combinations of multiple adults involved in the SI, including teachers, parent volunteers, and the student-teaching assistant. In the remainder of this section, I discuss different interactions that occurred during instruction as part of Camp Kaleidoscope.

Interactions as part of instruction. At times, multiple adults interacted with each

other as part of instruction (i.e., when delivering or facilitating instruction). One of the

most common instances of this was when Ms. Sykes and Ms. Little interacted while

implementing the one teach/one assist and team teaching approaches to co-teaching. The

nature of these co-teaching approaches, as operationalized below, lend themselves to

interactions between individuals implementing them.

> One teach/one assist: When one adult is leading instruction and another adult is
> assisting to support the adult leading instruction. (Coder Memo, November 8, 2018)

> Team teaching: When multiple adults are working together to plan, deliver, and
> assess students. (Coder Memo, November 8, 2018)

Although the implementation of these approaches did not always indicate that the two

teachers were interacting directly with one another, this did occur on several occasions.

One such example took place during the read-aloud on Day 3, led by Ms. Little. In this

instance, Ms. Little was conducting a read-aloud and posing open-ended questions to

students for them to engage in discussion about the text when one student shared a

response that she appeared to not hear. Ms. Sykes, who was collecting data on student

talk (e.g., unique responses, comments that suggested students' divergent thinking)

during the read-aloud, drew Ms. Little's attention to this student's response by repeating

this to her (Observation field notes, SI Day 3). Although an admittedly brief interaction,

Ms. Sykes was able to ensure a student's voice was heard and their response included as

part of the discussion by interacting with Ms. Little, who had not been aware of the

student's contribution to the discussion.

There were several occasions when the teachers modeled instruction for students

and interacted with one another as part of a team teaching approach to instruction. For

instance, when team teaching on the final day of camp, the teachers interacted with one another by modeling how students would share the stories they created throughout camp in place of a typical read-aloud. They demonstrated playing "Rock, Paper, Scissors" to determine who would share their story first. Then, Ms. Sykes modeled sharing a story with Ms. Little, explaining that this was the process students would engage in for this activity (Observation field notes, SI Day 8). The teachers' interactions with each other as part of instruction highlight their shared approach to instruction described previously.

Interactions as part of instruction were not limited to those that occurred between the two teachers. In one example, Ms. Sykes and Jada interacted with one another by modeling an activity for students. The two adults each had a puppet on their hand and used the puppets to perform a skit, demonstrating to students what they were going to be doing for their center activity (Observation field notes, SI Day 2). In another example, Ms. Sykes provided parent volunteers with directions for supporting students as part of instruction. Before students broke into groups, Ms. Sykes explained out loud to the students, "We'll have lots of grownups to help with the groups so moms if you can help," indicating to the parents that their support was needed as students created their collaborative stories (Observation field notes, SI Day 7). By interacting with parents in this way, the teacher was providing direction for how they could work with students during instruction while simultaneously informing the students that they could seek support from these other adults as they worked on their task. On another day, Ms. Sykes pointed out story feedback to the parent volunteer and encouraged him to ask the students these questions after they shared their stories with each other (Observation field notes, SI

Day 8). This demonstrates that teacher-initiated interactions with other adults provided

ways for them to be actively involved in instruction.

Interactions with students as part of instruction. While adults interacted with each

other as part of instruction, there were many instances of adults interacting with students

as part of instruction. The teachers interacted with students most often, as they were the

adults responsible for implementing instruction, whereas interactions between secondary

adults varied. As described in the vignette below, both teachers interacted with students

as they delivered instruction focused on the big ideas (i.e., Enduring Understandings and

Essential Questions) of the Day 1 lesson.

> After students each share a trait about themselves, **Ms. Sykes** asks how they used their voices today. She references the Storytelling Center and repeats her question.
> William (pseudonym): To talk to other people
> **Ms. Little:** Does anyone know another word for that?
> Victoria (pseudonym): Speaking
> **Ms. Little** says it is a big word that starts with a "C." Victoria starts to say communicate but needs teacher assistance to say this.
> **Ms. Little:** Did you find out that any of you have the same traits?
> **Ms. Sykes:** You like some of the same traits?
> William: Everyone loves cake
> **Ms. Sykes:** Did you find differences today?
> Several students: Yes
> **Ms. Sykes:** So, we can have similar traits of we can be very different from one another. (Observation field notes, SI Day 1)

In this example, the teachers posed questions similar to those suggested within the

curriculum book for the lesson's Closing Circle. In facilitating this discussion and

engaging students in dialogue, Ms. Sykes and Ms. Little interacted with students

attending the SI while addressing an Essential Question that guided the lesson, "Why

does my voice matter?" ("Once Upon a Time…" curriculum book, p. 7). By interacting

with students and facilitating discussions, the teachers prompted student thinking and

encouraged them to make connections that aligned to the big ideas of the lesson. Additionally, these interactions allowed for students to make their thinking visible and provided opportunities for the teachers to collect student data.

In another example, Ms. Sykes was able to work one-on-one with a student when the teachers were leading a challenging activity with the added presence of a parent volunteer and the student-teaching assistant. Specifically, she sat down and worked with a student who had not drawn her self-portrait, encouraging her to leave space on her paper so that the student could add this. Ms. Sykes also re-visited this student several times during the activity to provide additional support and have the student consider inside and outside character traits that described her. She was able to offer extra support to this student since there were three other adults present who continued to work with and support the other students (Observation field notes, SI Day 1). This example demonstrated how the presence of multiple adults made it easier for a teacher to work with an individual student to provide additional support while completing a rigorous activity.

While teachers interacted with students frequently (i.e., throughout the day) and consistently (i.e., every day), they were not the only adults who interacted with students as part of instruction during Camp Kaleidoscope. Jada interacted with students in small groups and individually to help them with tasks that required adult assistance. One example occurred when Jada worked with a student who had been absent on Day 2 of the SI and missed the puppet-making activity. On Day 4, the student finished early at the Storytelling Center and then worked with Jada who helped him to create his puppet by following his directions and hot gluing various materials to his character (Observation

field notes, SI Day 4). In this example, Jada's continual presence during the first week of the SI aided her in working with this student during instruction, since she was familiar with the whole group activity from an earlier day of the SI.

Although there was some variability, parent volunteers were most likely to interact with their own child(ren) as part of instruction, rather than with all of the students attending the intersession. An example of this was noted in the observer reflection on the first day of the SI.

> Even though she did eventually become more involved, especially during center time, the interactions that I witnessed her having with the students were mostly limited to that of her two daughters, who were two of the nine students attending the camp [on this day of the SI]. (Observer reflection, SI Day 1)

As demonstrated in the above examples, adults involved in the intersession interacted with other adults, as well as students, as part of instruction. However, these were not the only interactions that occurred during instruction.

Interactions as asides during instruction. Adults involved in the SI, including the two teachers, had brief interactions that were not part of instruction, but still occurred during instruction. Some of these interactions were teacher-initiated requests for other adults to complete a task and were typically non-instructional in nature. For example:

> As Ms. Sykes prepares for snack time, she has Jada collect markers the students were previously using and put these away. (Observation field notes, SI Day 1)

> Ms. Little and the parent volunteer chat briefly. The parent volunteer goes to the office and returns a few minutes later with an ice pack for a student. (Observation field notes, SI Day 4)

In these examples, teachers interacted with other adults in brief asides to have another adult engage in non-instructional support. These teacher-initiated interactions occurred at

various times and during various curriculum activities throughout the daily lessons and were typically caused by in-the-moment needs.

In addition to interactions between the teachers and other adults (i.e., parent volunteers and the student-teaching assistant), Ms. Little and Ms. Sykes also engaged in brief interactions with one another during various curriculum activities. In one example, prior to breaking students into groups as part of the whole group activity, Ms. Little said to Ms. Sykes in a low voice, "Maybe we should have three [groups]" (Observation field notes, SI Day 5). This comment indicates that the teachers had not planned student groups prior to instruction and Ms. Little was posing a suggestion to Ms. Sykes as to how the teachers would group the students. Had the teachers discussed this prior to instruction, this during instruction interaction between the teachers would likely have not occurred since student groups would have already been determined. In other instances, the teachers transitioned from one teacher leading an activity to the next teacher taking over instruction without interacting at all. This contrast and lack of interaction is noteworthy as it indicates that the teachers had previously planned (i.e., interacted with one another to determine) this transition between teachers. In one particular example, I recorded a reflection about the teachers' familiarity with the lesson and their plan for implementing the lesson noting, "There has not been much side conversation during camp between the teachers at this point, making it apparent that they know their roles regarding who is leading various sections of the curriculum" (Observer reflection, SI Day 1). This illustrates that when adults interact outside of instruction (before or after) to plan a lesson, they may not need to interact with each other as frequently during instruction when it comes to curriculum implementation.

The two teachers and student-teaching assistant also interacted with one another and the curriculum book during instruction. This was demonstrated in the following examples:

> As the students continue to snack, Ms. Little and Ms. Sykes speak briefly, both with curriculum books in hand. (Observation field notes, SI Day 1)

> Ms. Sykes, Ms. Little, and Jada are speaking with one another, reviewing the curriculum book and discussing the logistics for centers, while the children eat their snack. (Observation field notes, SI Day 3)

Notably, parent volunteers were not part of these particular during instruction interactions. Specifically, these interactions seem to be limited to adults who had access to the curriculum book and were familiar with the daily lesson being implemented. Additionally, it is noteworthy that both of these examples occurred during snack time. This suggests that snack time was an opportunity for some adults to interact with one another and "check-in" regarding curriculum implementation. Although it was stated in the curriculum book that snack time was a chance for students and teachers to add to anchor charts around the classroom ("Once Upon a Time…" curriculum book), there were not particular activities during this time. Additionally, the teachers interacted with one another about curriculum implementation during snack time when considering how to adjust instruction in response to an unintended curriculum deviation.

> The teachers discuss how to address an unintended curriculum deviation, which has caused them to be behind schedule, as students eat their snack. Ms. Little suggests the students share their collaborative stories a second time on the following day but extend the story first. The teachers also discuss the possibility of each leading a group in Center A and not having students rotate to both centers. However, Ms. Little asks, "What is that again?" in regard to Center A so the teachers decide to not go with this idea. Ultimately, they come to the decision that they will continue with the lesson as planned but will shorten the amount of time students spend in each center. (Observation field notes, SI Day 7)

In this aside, the teachers interacted during snack to discuss how they would make needed adjustments to the remainder of the daily lesson. This shows that the teachers worked together to adjust the lesson, demonstrating their shared responsibility as facilitators of instruction throughout the SI. These examples demonstrate that snack time was used as an opportunity for various adults to "re-group," whether in the form of a quick check-in while referencing the curriculum book or a more involved interaction, such as making adjustments to the daily lesson plan. Additionally, since the teachers worked together to make needed adjustments, this depicts them as equals, working together to navigate instruction.

While interactions between teachers and secondary adults were largely teacher-initiated, this was not always the case. Ms. Little shared an interaction she had with a parent volunteer who initiated a side conversation with her during instruction regarding the volunteer's child and another student. Ms. Little explained, "the mom said to me, 'Well, we had to separate those two last year at school, so it's a big problem.' So, I can tell she was watching her son and this other student" (Interview with Amanda Little, July 24, 2018). In her comment, Ms. Little expressed she did not mind that the parent volunteer wanted to share this information; however, she did note "sometimes side conversations can be distracting," indicating this parent-initiated interaction briefly took away from her focusing on instruction. This comment implies that Ms. Little may have found it preferable for interactions not directly related to instruction or what was currently happening in the classroom to occur before or after instruction, but not during instruction.

In this section, I discussed the interactions between and among the multiple adults involved in Camp Kaleidoscope, as well as adult and student interactions. In the following section, I discuss teachers' expressed beliefs regarding benefits and challenges when interacting with other adults.

Finding 4: When interacting or working with other adults in a shared setting, the two teachers voiced benefits, as well as challenges.

In the previous finding, I described various interactions of multiple adults throughout Camp Kaleidoscope. While understanding the interactions that were taking place is important to learn more about the role of multiple adults, this is not the only aspect of adult interactions that should be considered. Specifically, Ms. Sykes and Ms. Little expressed benefits, as well as challenges, when interacting with other adults in a shared classroom setting. These benefits and challenges are discussed within the following sub-sections.

Expressed benefits when interacting with other adults. The teachers within this study expressed several benefits of working with other adults, including ways in which these interactions helped them to implement instruction. These benefits included being able to seek input from another adult as part of planning instruction, having additional support when implementing instruction, including data collection, and opportunities to learn from the other adults with whom one is working.

As noted previously, the two teachers demonstrated equal contributions to planning instruction through their actions and explanation of their roles during the SI. Ms. Sykes described this approach of interacting with one another when planning

instruction and explained how the teachers sought each other's' advice and worked together to determine the best way to implement instruction.

> … I would kinda ask questions of her. "How do you think I should do this?" Or "do you think there's a part here we could do a little differently?" So even though I was gonna do that part, say like the Opening Circle, if she had an idea or a way that we can kind of alter it a little bit to better suit us, we kind of plan that out the day before or sometimes even the night before she'll even text. (Interview with Lauren Sykes, July 25, 2018)

This explanation highlights the teachers' approach to interacting as part of planning with Ms. Sykes vocalizing that even when they divided instruction, the teachers planned together and sought input from one another. This demonstrates equal contributions when planning, as well as the benefit of having another adult to work and share ideas with when planning for the implementation of a rigorous curriculum. Furthermore, this also depicts a strong working relationship between the two teachers, since they interacted with one another to prepare for instruction, including parts of the curriculum that they were not responsible for leading.

A second benefit of multiple adults working and interacting in shared classrooms settings is the additional support provided when implementing instruction. In particular, the teachers described the benefit of having multiple adults in a classroom when collecting student data, a challenge associated with implementing a rigorous curriculum on one's own. When asked if they utilized the same data collection process during the school year as they did during the SI, the teachers explained the challenge of doing this without another adult present.

> **Ms. Little:** I try.
> **Ms. Sykes:** Yeah, I think I try, but it's not always consistent.
> **Ms. Little (in the background):** Yeah
> **Ms. Sykes (continuing):** I mean, I like the idea, but being by yourself
> **Ms. Little (in the background):** Yeah

Ms. Sykes (continuing): and trying to get an anecdotal note on everybody…when you're on your—kind of by yourself, you miss what some of the kids are saying or thinking…

Ms. Little:…I go in with great intentions, and I start [collecting data], and then it's like "ugh!" And I just kinda do it by memory, but then you forget stuff all the time. It doesn't work that way…

Ms. Sykes: I will say that's where it's kind of nice having another teacher—

Ms. Little: Yeah (Interview with Amanda Little and Lauren Sykes, July 26, 2018)

This demonstrates the teachers' belief that working with other adults in a classroom setting can be beneficial when implementing instruction and collecting data to inform future instruction. Additionally, the teachers acknowledged the benefit of having other adults present when implementing the "Once Upon a Time…" curriculum in particular. Ms. Little explained that if she had been the only adult implementing the curriculum, it would have been challenging and she would have had to approach instruction differently.

> If it was just me, I don't think it would flow as well because there are a lot of big components to this. I'm already thinking if I use parts of this in this school year, I'd wanna make sure a special ed teacher was with me or something to kind of help make it—there's like a full effect when you have two people kind of feeding off each other for what the goal is. (Interview with Amanda Little, July 24, 2018)

Ms. Little acknowledged the challenge of implementing the SI curriculum alone, highlighting the connection between a rigorous curriculum and the need or preference for multiple adults working together to enact said curriculum.

Teaching with another adult can also be a learning opportunity. Ms. Sykes expressed this idea as a benefit to working with other teachers, explaining "you just learn so much from the other person" (Interview with Lauren Sykes, July 25, 2018). Furthermore, she did not limit these learning opportunities to occurring only between teachers.

> I like to collaborate. Mostly because I like to learn from other people and even the parents, and even Jada. They'll say things and I'm thinking, "oh, yeah, that's a

good idea." Like Jada had an idea about putting tape on an anchor chart…and then using dry erase markers to write on there and then you erase it back off and write again…and so, she showed us how we could just put tape over there and I thought, "…I'd never heard that idea before" and "…that's really cool, that's a good idea." (Interview with Lauren Sykes, July 25, 2018)

In addition to understanding what interactions were occurring between adults as part of the intersession, the teachers expressed beliefs that suggest interacting with other adults as part of implementing instruction can be beneficial. These benefits included having another person with whom teachers could plan instruction and seek input from, working with others to implement instruction, and opportunities to learn from other adults.

Expressed challenges when interacting with other adults. Despite the expressed benefits to having other adults present to interact with as part of the SI, the teachers also identified challenges related to interacting with other adults.

The teachers noted the value of shared educational goals and equal contributions when planning and implementing instruction with other adults. However, without these factors, interacting and working with other adults was noted as having potential for challenge. Ms. Little described that with the "right" partnership, multiple adults interacting with one another can be very beneficial. However, she expressed the challenge of being flexible when implementing instruction if the other teacher she is working with does not have this same approach to instruction. She also said, "Then there's another situation where one doesn't take initiative or they kind of sit back more and let someone dominate the teaching, so that can be a huge challenge and it doesn't really make it fun…to…teach together" (Interview with Amanda Little, July 24, 2018). Although Ms. Little expressed that she did not face these challenges in her teaching partnership with Ms. Sykes, this is an important consideration when multiple adults

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interact with one another in shared classroom spaces. Ms. Little identified differing approaches to instruction or a lack of equal contributions as challenges that could reduce the benefit of multiple adults interacting and working with one another to implement instruction.

Another challenge of working with multiple adults can occur if there are limited opportunities for interactions, such as that between the two teachers and parent volunteers during the 2018 SI at WES. Since parent volunteers were not present before or after instruction, opportunities for them to interact with other adults involved in the SI, including the two teachers, were limited to brief interactions as part of and during instruction. Furthermore, since each parent volunteer was only present for one day of the SI, they did not have the opportunity to interact with other adults over the course of the two-week intersession. Ms. Little explained she saw some ways in which parent volunteers were helpful during the overall process of Camp Kaleidoscope; however, when asked if the SI experience would have been different without parent volunteers present, she responded with uncertainty.

> I don't really know because I kind of feel like I didn't really get to—I kind of encountered with them with side conversations, but I think a lot of the times they were just more kind of standing there…So, I felt like it was more kinda just an observer. Some of them were good about helping…I would say if today we didn't have a parent volunteer, was it hurtful that they weren't there? I can't really say. I don't think it made it any worse or any better for the kids…" (Interview with Amanda Little, July 24, 2018,)

Ms. Little explained that while she did interact with parent volunteers, their role largely seemed to be that of observers. Additionally, she noted some volunteers were more involved, but ultimately concluded that she was unsure of the impact their presence made for students attending the SI. If there had been more opportunities in which parent

volunteers could have interacted with the teachers to discuss their role, the curriculum, and other relevant aspects of the Camp Kaleidoscope process, parent volunteers could have gained more knowledge and experience and potentially been more active participants during Camp Kaleidoscope. This highlights the importance of opportunities for adults to interact with one another to aid in implementing instruction and in being actively involved in the various activities of the intersession.

Additional tensions when working with parent volunteers during the SI were also expressed by the teachers. For instance, Ms. Little described uncertainty regarding the role of parent volunteers when asked about challenges of having multiple adults in a classroom. She explained, "I don't know what they're thinking. I don't know what they're comfortable with," but also that "I feel like everybody has to have a job if they're in the room (laughs)," expressing the challenge of feeling like she did not always know what tasks to give parent volunteers (Interview with Amanda Little, July 24, 2018). Relatedly, Ms. Sykes described the challenge of providing thorough direction and concrete tasks to the parent volunteers. When reflecting on the role of parent volunteers during the SI, she said, "And as with the parents…I think we could've done a little better with that one but I just felt like we weren't quite as organized to tell them what to do to kind of help with different things" (Interview with Lauren Sykes, July 25, 2018). In this statement, Ms. Sykes acknowledged that the teachers could have done more to interact with parent volunteers and provide guidance regarding their role during the SI. However, brief interactions between the teachers and parent volunteers during instruction and a lack of interactions before and after instruction limited teacher opportunities to interact with and provide guidance to parent volunteers regarding their roles as part of the intersession.

Another example of this tension with parent volunteers was evident in the teachers' reservations regarding behavior management with parent volunteers in the classroom. Ms. Sykes said that, although this was less of a worry during the SI, this is still something that she thought about when having parent volunteers in the classroom.

> …with parents, I always worry how to handle behavior issues when the parent is there, because I don't wanna offend the parent if I kind of manage the child, which we didn't have to do a whole lot of during camp because camp is set up more fun. (Interview with Lauren Sykes, July 25, 2018)

Ms. Little expressed similar concerns when working with parent volunteers, explaining that she does not care to have parent volunteers in her classroom.

> …just because I know they're just gonna wanna focus on their child and they they're gonna analyze. Then you kinda feel like they're watching you, how you deal with their own personal child. Some parents can overlook their own child and look at everybody and that's great, but then I'm always wondering what they're thinking. "Okay, why did you use that tone with my child?" (Interview with Amanda Little, July 24, 2018)

The teachers' expressed beliefs of working with parent volunteers in the classroom depicted a tension between the presence of the parent volunteers and the ways the teachers interacted with students in regard to behavior management.

When considering the interactions between and among multiple adults in a shared classroom setting, it was evident that there are numerous factors that can influence a working relationship. Overall, the teachers' beliefs regarding working with other adults of varying roles (e.g., teachers, parent volunteers, student-teaching assistant) and in varying contexts (i.e., Camp Kaleidoscope, classroom during the academic year), suggests the complexity regarding multiple adults working together and interacting in a shared classroom setting.

Patterns between Multiple Adults and Curriculum

As detailed in previous chapters, the overarching goal of Project Kaleidoscope is to support students with gifted potential who are from traditionally underrepresented populations in gifted education. As part of the larger, multi-pronged system of Project Kaleidoscope, the process of Camp Kaleidoscope was one component designed to achieve this goal. Therefore, in addition to the multiple adults who participated in Camp Kaleidoscope, another input to the SI process was the "Once Upon a Time…" curriculum that was implemented during the 2018 intersession. Having multiple adults work together in a shared classroom setting to implement an academically-challenging, or rigorous, curriculum is one way to support and foster students' gifted and talented development. Through data analysis, I arrived at three research findings regarding patterns between the adults involved in the intersession and the SI curriculum. Specifically, the findings are:

5. Throughout the SI, the teachers made intentional and unintentional curriculum deviations, modifying instruction from that which was written in the "Once Upon a Time…" curriculum.

6. When fewer adults were present during the SI, the teachers' attention was more focused on task completion or managerial tasks, rather than developing enduring curricular understandings.

7. Teachers' limited curricular experience led to missed instructional opportunities even when multiple adults were present.

In the sections that follow, I discuss the aforementioned findings in detail.

Finding 5: The teachers made intentional and unintentional curriculum deviations, modifying instruction from the written curriculum.

A range of curriculum deviations. Curriculum deviations were noted over the course of the two-week intersession, and occurred intentionally and unintentionally, resulting in curricular implementation that varied from that in the "Once Upon a Time…" curriculum. These deviations included extensions or additions to the curriculum (instructional and non-instructional), adjustments to the schedule, simplification or overall reduction of an activity, and imprecise implementation. In the following sub-sections, I describe these deviations in greater detail.

Extensions and additions to the curriculum. During the enactment of the SI curriculum, Ms. Little and Ms. Sykes added to the curriculum. While these were curriculum deviations since they enacted something that was not part of the original curriculum, these were extensions that added to, rather than changing or taking away from the "Once Upon a Time…" curriculum. The teachers drew upon their curriculum experiences and pedagogical expertise to implement the following extensions to the curriculum. Table 4.5 includes examples of instructional and non-instructional curriculum extensions decided upon and enacted by the two teachers.

Table 4.5
Examples of teacher-enacted curriculum extensions

SI Day and Curriculum Activity	Extension Type (Instructional or Non-instructional)	Example from observational data	Curriculum Challenge
Day 1, Opening Circle	Non-instructional	At the end of the Opening Circle, Ms. Sykes leads the students in a movement activity. She has them stretch "way up high" and complete other stretches before they	Did not alter curriculum challenge

		transition to the read-aloud. (Observation field notes, SI Day 1)	
Day 2, Opening Circle	Instructional	Ms. Sykes leads a mini-lesson and facilitates a discussion on active listening before the planned Opening Circle activity. She explained that she did not focus on this as much or as clearly as she would have liked on the first day, so she was including it at the start of Day 2. (Observation field notes, SI Day 2)	Did not alter curriculum challenge
Day 2, Centers (Center A)	Instructional	The teachers planned to add to Center A so that it was comparable in time to Center B. As such, students were given an emotion card by the teacher to act out, as opposed to being told an emotion, and created a skit in which they included the emotion. Then, they repeated this activity, this time picking an emotion card at random, adding to the overall rigor of the task. (Observation field notes, SI Day 2)	Altered curriculum to be more challenging
Day 4, Opening Circle	Instructional	Jada made 3-column charts for students to record what they observe on their story walk. In describing the activity, Ms. Little explains that the students will be "investigators," and will use the chart to draw pictures and write words of what they see. (Observation field notes, SI Day 4)	Altered curriculum to be more challenging
Day 8, Read-aloud	Instructional	The teachers add an additional read-aloud, *We're Going on a Bear Hunt,* to this day's lesson. (Observation field notes, SI Day 8)	Did not alter curriculum challenge

In some instances, these extensions added to the rigor or challenge of the curriculum, whereas in other examples the challenge of the curricular activity was not altered. For instance, the example of Ms. Sykes leading students in a movement activity during Day 1 of the SI highlighted her pedagogical expertise, providing students an opportunity to exert some of their energy before they sat to listen to Ms. Little conduct a read-aloud. While this was an extension to the curriculum, this addition did not add to the challenge of the activity. However, given the overall rigor of the SI curriculum, this was an extension that provided students with a brief break, making it a developmentally appropriate extension for the students attending the SI. Another example of a curriculum extension that did not alter the rigor of the curriculum was the addition of another read-aloud on the final day of the SI. The teachers explained that they added this activity to the final day's lesson because they thought that the planned activities would not take as long as the allotted time.

> **Ms. Little:** Well, we kind of changed a few things today
> **Ms. Sykes:** Only because we felt like we were going to wrap up a lot faster than we thought, so we just wanted to make sure we had some interest
> **Ms. Little:** And just to have more movement for them… (Interview with Amanda Little and Lauren Sykes, July 26, 2018)

Again, the teachers used their pedagogical expertise as veteran educators, as well as their familiarity with the students and SI curriculum, to determine a need for an extension to the curriculum. They supported this choice by explaining that they knew they would likely have extra time on this day, as well as a need for students to be active since there would be a lot of sitting and listening during the final day. The text the teachers chose was aligned to the big ideas of the day, making it an appropriate extension, but did not necessarily pose additional challenge to the students.

The example of extending Center A on the second day of the SI was one instance in which the teachers did alter the curriculum to be more challenging. Within the curriculum book the activity stated:

> Place children in pairs or small groups. Tell the children that you will give them two emotions, (e.g., happy and sad). Their job is to come up with a quick skit where at least one of the characters start off as one emotion and ends up the other. If time provides, have additional pairs of traits. ("Once Upon a Time…" curriculum book, p. 23)

In the example within the curriculum book, students were asked to depict how they would start out "happy" and end up "sad" or vice versa. With the teachers' extension to this activity, students completed the skit once this way, but then randomly selected emotion cards, rather than the teacher determining a particular set of emotions they would be responsible for acting out. As such, this added to the potential rigor of this activity since students were tasked with making connections between traits that may be seemingly disconnected, unlike a pairing of the words "scared" and "brave."

The teachers also provided an opportunity for increased curriculum challenge by including a three-column chart for students to record their observations on the observation walk on Day 4 of the SI. While this graphic organizer can be seen as a support for students during this activity, it also added a level of rigor to the task since the students were asked to record (write or draw) their observations. In some instances, the curriculum extensions described above added to the level of rigor or challenge of a particular task and at other times did not alter the challenge of the curriculum. These curriculum additions do suggest that even though the teachers were implementing an academically-challenging, pre-created curriculum, they were comfortable with and confident in adding in extensions to strengthen the enactment of the curriculum.

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Schedule adjustments. Given the various curriculum extensions and other deviations, it is unsurprising that some of the curriculum deviations related to changes to the proposed schedule included on the first page of each daily lesson within the curriculum book. In some instances, the teachers took more time to implement a task (or a portion of a task) than was recommended within the curriculum book. For instance, in leading students in a discussion on how to work in a collaborative group, the teachers spent approximately ten minutes on what was recommended to be a five-minute task (Observation field notes, SI Day 3). In another example, the Day 4 Opening Circle story walk lasted nearly 20 minutes, when it was explained within the curriculum that this should be a five- to seven-minute walk (Observation field notes, SI Day 4). Part of the reason for this lengthened task was likely due to the addition of a chart for recording student observations, as described previously. In both of these examples, the teachers scaffolded the activities for the students, providing additional instruction/explanation and tools for students when completing the activities.

The teachers also made schedule adjustments when they switched the order of snack time on Days 5 and 8 of the SI. While the teachers switched the order of activities to have snack time earlier in the day than indicated in the curriculum book, it is important to note that the order of the instructionally focused activities (e.g., Opening Circle, Whole group activity, Centers) were not altered for any of the days. For example, the teachers did not move a read-aloud to come after the whole group activity if it was scheduled for the read-aloud to happen first.

Simplification or reduction of activity. Another way in which the teachers made deviations to the curriculum was by simplifying or generally reducing the steps or

complexity involved in an activity. An example of this was during the implementation of the Storytelling Center led by Ms. Little. After the observation, I recorded the following reflective note:

> When reviewing the curriculum, one thing I noted is that while Ms. Little is "switching up" the Storytelling Center in different ways through the days, she is using a limited amount of materials and provides the children with a relatively specific task when they are at the station. For instance, although they are still telling stories, she is having them draw or write rather than giving an option of building with the blocks. Furthermore, in the curriculum book (p. 34-35) there are three prompts provided for children to choose from, one being for children to refer back to the anchor chart on settings and use this as a starting point to create their story. However, I have not seen the teachers referring back to the anchor charts as much as I might have anticipated. (Observer reflection, SI Day 3)

This was a deviation that simplified the enactment of the center for Ms. Little; however, it took away some opportunities for differentiation since options for student products were limited.

There was also a curriculum activity that was simplified on the final day of the intersession. Specifically, during the read-aloud where students were to share the stories they had created from the Storytelling Center over the course of the SI, it was stated in the curriculum that "The rotation should also include a stop at the audio recording station so that children can share one of their audio recordings with a partner" ("Once Upon a Time…"curriculum book, p. 78). This was designed to be an authentic and engaging experience for students, two characteristics of rigorous curriculum. It was explained in the curriculum book that teachers should "Emphasize that they [students] are all authors in this class and they get [to] tell and listen to each other's stories" ("Once Upon a Time…" curriculum book, p. 78). While students still shared their stories with each other by re-telling them to various partners within the class, the simplification of this task altered the authenticity of the students' audio-recorded stories as they were not able to

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share these with a real audience of their peers. In both examples of the teachers simplifying curriculum activities, some characteristics associated with rigorous curriculum were reduced as part of the altered activity, potentially lessening the rigor of the activity itself.

Imprecise implementation. Lastly, I describe how imprecisely implemented activities were unintentional deviations that led to a need for intentional curriculum deviations. The following vignette depicts an unintentional curriculum deviation, which resulted in an imprecise implementation of the remainder of the activity.

> The students transition from planning their collaborative stories to presenting their stories, an activity not scheduled to happen until the following day. I realized this was not supposed to occur and asked Ms. Sykes if they wanted to wait for students to perform as the following day as indicated in the curriculum book. She said she wondered about this since the activity seemed long [for the recommended time allotted] but that since the students were creating the story that day, she thought there was a sharing portion. Ms. Sykes relayed the inadvertent curriculum deviation to Ms. Little, but the teachers chose to have the other groups present since one group had already gone. (Observation field notes, SI Day 7)

Not only was this an imprecise implementation that influenced instruction for this activity, it required the teachers to consider how they would address instruction for the remainder of the day since this deviation resulted in them being behind schedule. Additionally, since sharing collaborative stories was a large component of the Day 8 SI, the teachers had to determine how they would alter instruction for the next day since the students had already completed this activity as part of Day 7.

In their joint interview, the teachers described changes made to the whole group activity for this day of the SI. Ms. Little noted that this activity and the directions leading up to students engaging in the activity required, "a lot of listening…so, that was hefty" (Interview with Amanda Little and Lauren Sykes, July 26, 2018). The teachers also cited

the need for more student movement during this day generally, and for this activity in particular. Ms. Sykes described a connection between this need for movement and the imprecise activity implementation stating,

> Yea, and I think the reason—well, I know the big reason I was like, "Oh, we need to share," is because I felt like we needed to get them up and moving and I was like, "Oh, this is the part that comes next," and not realizing. (Interview with Amanda Little and Lauren Sykes, July 26, 2018)

Although an unintentional deviation that had impacts on the rest of the day's lesson and the following lesson, Ms. Sykes' explanation demonstrated her reasoning for implementing the activity the way the teachers did.

The examples discussed in this finding highlighted intentional and unintentional deviations, and deviations that impacted curriculum implementation in small and large ways. In the next section, I discuss how the number of adults present during the SI altered how the teachers approached curriculum implementation.

Finding 6: When fewer adults were present, the teachers' attention was more focused on task completion, rather than developing enduring understandings.

A focus on instruction and student learning. When secondary adults (i.e., parent volunteers, student-teaching assistant) engaged in non-instructional support, teachers had more opportunities to focus on instruction.

The following vignette is an example of how support from the student-teaching assistant allowed for one of the primary adults to focus her attention on conversations with students about big ideas of the lesson, rather than simply on task completion.

> Once students have been given directions for puppet making and brainstorming what their puppets will look like, they begin creating their puppets. Jada is seated at the supply table and is helping students to cut out materials and is operating a hot-glue gun based on student explanation of how the puppet should look. As Ms. Little also works with students to assemble their puppets, Ms. Sykes moves

throughout the groups interacting with students and engaging them in conversations about their puppets, such as the traits they are giving their puppets and how these traits are conveyed, aligning to the purpose of the activity. During this time, one student shows Ms. Sykes that he put a brain inside his puppet (i.e., purple and red squiggle lines) and explains to her "dogs don't live if they don't have a brain." She continues to walk around with her clipboard for recording data in her hand, talking with students about their puppets. In another interaction, Ms. Sykes asks to hear about the student's puppet. Selena (pseudonym) says her puppet's name is Kermit and Ms. Sykes asks about the puppet's traits, reiterating the difference between outside and inside traits. As Ms. Sykes interacts with students, Ms. Little and Jada continue to help students in assembling their puppets, and students begin to interact with each other, engaging in exploration and play through their puppets. (Observation field notes, SI Day 2)

As part of the above example, Ms. Sykes was able to focus her attention on interacting with students and engaging them in conversation to support their mastery of curriculum learning objectives and big ideas of the lesson. Since Jada and Ms. Little were working with students to assemble their puppets (i.e., task completion), Ms. Sykes was able to focus on developing enduring curricular understandings and know that the concrete task would still be complete since there were other adults working with students in that capacity. A parent volunteer had originally been scheduled for this day of the SI but was unable to attend. Had this additional adult been present, it is possible they too could have helped students in assembling their puppets, thus allowing Ms. Little to have circulated among the students engaging them in discussion related to the big ideas of the lesson with Ms. Sykes. The idea of secondary adults in the classroom supporting teachers in non-instructional capacities as a way to allow teachers to focus on instruction, was also vocalized by Ms. Sykes. She described the benefit of parent volunteers explaining, "It's good because they can really help out and you can utilize them to get things ready. So, that way you're [the teacher] not spending the whole time prepping materials" (Interview with Lauren Sykes, July 25, 2018).

When enacting a rigorous curriculum with fewer adults, the teachers had more guidelines in place that focused on step-by-step directions for task completion. Furthermore, the teachers vocalized that if there were not multiple adults involved in the SI, they would likely have been more focused on management, rather than interacting with the students to foster their understanding of the curriculum and related big ideas. Ms. Sykes addressed this when asked how instruction might have been different if she were the only adult present during the SI.

> I think, if I was the only adult, I know I would probably have to manage a bit more so there might be a lot of ground rules that I'd probably be laying down for the kids…I think I would have to do a lot more of that and just kinda say "This is what I need you to do, once you finish this then you're gonna move here. I think there would be more directions…and that might kinda curb…where I can let them create a little bit more because I think I'm being more kind of confining just to make sure I'm managing everybody. (Interview with Lauren Sykes, July 25, 2018)

Related to the ideas expressed by Ms. Sykes in the above quote, the teachers enacted the superhero design challenge on Day 6 of the SI by describing step-by-step directions to ensure accurate task completion. Since there were no secondary adults to aid students in filling out their graphic organizers and creating their capes and masks, the teachers were responsible for filling this role, which took away some opportunity for them to focus on developing enduring curricular understandings. For example, when completing their graphic organizers for their superheroes, a student asked Ms. Sykes what color she thought invisibility was and she responded by asking, "What do you think?" The student responded "grey," and then Ms. Sykes turned her attention to another student's graphic organizer (Observation field notes, SI Day 6). Had there been more adults present to work with the students and support them in filling out their organizers, Ms. Sykes might have had more opportunity to interact with this student. Instead of

ending the conversation with the student deciding invisibility should be represented by the color grey, the teacher could have posed follow-up questions, such as "What about being invisible makes you think of the color grey? Why? Could you tell me more about that?" Questions such as these would have pushed the student's thinking further and had him consider how this external trait represented the character he was creating. Related to the idea of teachers being able to focus on larger instructional concepts rather than task completion when multiple adults are present, is the opportunity to capitalize on "teachable moments," when there is additional adult support in the classroom.

"Teachable" moments. Not only does having additional adult supports present allow teachers to focus on the big ideas of instruction, but it can also provide an opportunity for teachers to capitalize on "teachable moments," that they might not have otherwise been able to address. Teachable moments are those instances that occur organically within a classroom setting that teachers can turn into in-the-moment, unplanned learning opportunities, whether for an individual student or the entire class. During the SI, having multiple adults present allowed for teachers to take advantage of these organic moments to further student thinking and enhance instruction. An example of teachers capitalizing on such a moment is described in the vignette below.

> Following the Day 4 whole group activity, the parent volunteer goes to the office to retrieve an ice pack for a student who bumped her head during the obstacle course. As the teacher and students return to the classroom to continue their discussion Jada remains outside to pick up all of the obstacle course materials.
>
> Since they are somewhat behind schedule, the teachers have students get their snack and continue to facilitate the discussion they were having outside. Ms. Little asks the students if different versions of the obstacle course were hard, asking why students liked certain iterations better than others.
> **Victoria:** I like the blindfolded one, but not when I hit my head.
> **Ms. Sykes,** pointing to the dramatic events anchor chart: Would you call that a dramatic moment?

Victoria nods her head "yes" and a moment later Ms. Little adds Victoria's "little bump" to the dramatic events anchor chart. (Observation field notes, SI Day 4)

The teachable moment in the above example came from an actual "dramatic event," that occurred during the whole group activity in which students completed different versions of an obstacle course. While the teachers facilitated a discussion about the course itself and which aspects of the course made it more or less challenging, interesting, and fun, a student brought up her own "dramatic event." The teachers were able to capitalize on this moment by making a connection between the student's comment and the focus of the day and adding this to the relevant anchor chart. Furthermore, since the parent volunteer and student-teaching assistant were engaging in non-instructional support tasks during this time, the teachers were able to continue their discussion (rather than completing the non-instructional tasks themselves) and take the time to discuss the unplanned, dramatic event that occurred during the activity. While the presence of multiple adults provided opportunities for the teachers to capitalize on these organic learning experiences, this was not always the case.

Even when secondary adults were present during the SI, there were some teachable moments not addressed by the teachers. For instance, despite multiple adults being present on the second day of Camp Kaleidoscope (i.e., both teachers and Jada, the student-teaching assistant) there was a missed opportunity for a teachable moment during the introduction to the whole group activity. During this part of the lesson, the teachers were leading a discussion about character traits using images of puppets and asking students to consider potential traits (internal and external) based on the different images. As evidenced during the first day of the SI, the students grasped the idea of external (i.e., outside) traits, but struggled to identify internal (i.e., inside) traits. In re-visiting the idea

of internal and external traits during Day 2, this was an opportunity for teachers to focus on these ideas to ensure student understanding. As they showed the different images, one student pointed to an image explaining that one of the characters (Bert, a Muppet from *Sesame Street*) was angry and the other character, Ernie, was happy (See image in Figure 4.2). While both of these were good descriptors, the student did not explain what about

Figure 4.2. PowerPoint image of Bert and Ernie from *Sesame Street* used during Day 2 as part of whole group instruction when discussing internal and external traits.

their physical appearance/features suggested these internal traits. As such, it was unclear if the student was basing her response off of their physical traits (e.g., wide smile, straight line for mouth, eyebrows straight across), or from prior knowledge the student might have possessed of the characters themselves.

This example highlights that some teachable moments were not addressed, with or without multiple adults present, since the teachers could have pushed students' thinking further to support them in making connections to the big ideas of the lesson. However, this was a missed opportunity to capitalize on a teachable moment and focus on an idea with which the students had previously struggled. Therefore, while the presence of secondary adults seemed to allow for teachers to capitalize on organic, teachable

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moments in some instances, this was not always the case as some teachable moments

were not addressed even with the presence of additional adults.

Teachers' roles in non-instructional tasks. Throughout the 2018 SI, Ms. Little

and Ms. Sykes engaged in a combination of instructional and non-instructional tasks.

However, it was noted that when secondary adults were not present, especially the

student-teaching assistant, the teachers engaged in more non-instructional tasks. An

overview of examples from observational data are included in Table 4.6 below.

Table 4.6
Teachers engaging in non-instructional tasks when secondary adults were not present

SI Day and Curriculum Activity	Example from observational data
Day 5, Pre-lesson	The teachers are preparing the "minefield" for the Opening Circle since Jada will not be here today and this is typically the type of task for which she would be responsible. Ms. Sykes is making "mines" for the obstacle course and the teachers discuss whether there should be two or three mines along the course. Next, the teachers discuss the whole group activity for the day. Ms. Sykes locates yarn that will be needed for the activity and Ms. Little writes on index cards with the names of places they visited during the Day 4 story walk. (Observation field notes, SI Day 5)
Day 6, Snack Time	Ms. Little is putting student work from the day and previous days into their individual folders. (Observation field notes, SI Day 6)
Day 6, Closing Circle	Ms. Sykes helps students to remove their masks and capes so that pictures of the students' creations can be taken and to put them back on after. (Observation field notes, SI Day 6)

The teachers indicated that they were aware of how their responsibilities and

actions had to be adjusted without the support of secondary adults. When asked about

this, Ms. Little shared the following response:

> Well, if we didn't have Jada, which we've been experiencing the last few days
> (laughs), we just had to kind of prepare the next day with all the materials and get

stuff ready. Oh my gosh, without her, it's been kind of tricky because she has a method of keeping everything organized, so we just kind of depended on her to do all the materials. (Interview with Amanda Little, July 24, 2018)

Ms. Little's explanation of how the teachers depended on Jada for material preparation and set-up indicates this was not a task they were responsible for when she was present. However, when she was not at the SI this was a necessary non-instructional task in which the teachers had to engage. Ms. Sykes expressed a similar idea to Ms. Little stating that "Jada…was very valuable in getting all the materials set up and organized for us, which I think is a big deal because there's a lot of materials and everything that needed to be organized for the different activities" (Interview with Lauren Sykes, July 25, 2018). This demonstrates that the non-instructional support provided by secondary adults throughout the intersession aided the teachers. Specifically, since there were other adults present to complete these tasks, the teachers could focus on instructional components of the curriculum, such as supporting students in developing enduring curricular understandings and capitalizing on teachable moments, as described previously within this finding.

Since the teachers engaged in more non-instructional responsibilities when secondary adults were not present, this also meant that the teachers had less time and opportunity to focus on certain instructional responsibilities. One instructional responsibility that the teachers engaged in noticeably less often when secondary adults, especially the student-teaching assistant, were not present was collecting informal student data. During Days 5 and 7 of the SI in which parent volunteers were present but Jada was not, there was no mention of teachers' data collection during either observation. I reflected on this difference regarding the teachers' instructional actions at the end of Day 5.

One thing I noticed about the teachers today is that it seemed as though they did not collect any data. I did not take photos of data collected throughout the day, and that was different compared to other days. However, it is important to note that Jada, the high school helper, was not here today and will not be here the next two days, and this perhaps has something to do with the lack of data collection since the teachers were needing to do some things Jada might normally do. (Observer reflection, SI Day 5)

Additionally, while Ms. Sykes collected some data during Day 6 of the SI, there appeared to be less data collection happening as compared to Days 1-4 since the teachers were spending more time preparing, organizing, and cleaning up than on previous days when secondary adults were present (Observation field notes, SI Day 6). While this might not have been the only reason there was less data collection occurring on this day and others, it is important to note the pattern between teachers' data collection and the presence, or lack thereof, or various secondary adults.

These examples demonstrate that it is important to consider what tasks the teachers engaged in, as well as the tasks in which they did not engage in, as a result of secondary adults not being present. In the above examples it is not just important what the teachers *did* do, rather it is also important to be aware of what the teachers *did not* do—collect informal student data. One of the challenges associated with implementing rigorous curriculum is the ability to collect student data and make curricular adjustments to best support the learning needs of all students. As such, not collecting data makes it difficult for teachers to implement curricular changes to support students' educational needs without specific data on which to draw to support said curriculum changes.

Throughout this section, I described ways the teachers' actions and curricular focus varied when secondary adults were present or not present. With secondary adults present, Ms. Little and Ms. Sykes had more opportunity to focus on instruction, including

supporting students in developing enduring curricular understandings and taking advantage of teachable moments. Without the presence of secondary adults, the teachers' actions became more task-focused and they were responsible for various non-instructional tasks that were typically the responsibility of the student-teaching assistant. As the teachers' attention shifted to non-instructional tasks, they had fewer opportunities to engage in tasks that are needed when implementing academically rigorous curriculum, such as collecting data and using informal assessments to adjust instruction accordingly to support students' instructional needs. In the following section and last finding of this Capstone, I discuss the teachers' experience with the SI curriculum and use of reference tools to aid them in curriculum implementation.

Finding 7: Teachers' limited curricular experience led to missed instructional opportunities.

Limited curricular experience and missed opportunities. The teachers prepared daily for each lesson, as described in teacher interviews and depicted in observational data. However, the 2018 SI was the first time they had ever implemented this particular curriculum, which included characteristics associated with rigorous curriculum (i.e., focus on enduring understandings, alignment, opportunities for differentiation, instruction that is developmentally appropriate and authentic, and engaging) detailed in the earlier review of literature. As such, they did not have the benefit of repeated experiences of working with and refining their enactment of the curriculum. Despite daily collaboration and planning, a lack of curricular experience led to missed opportunities during the SI, even when secondary adults were present to support the two SI teachers.

Throughout the SI, the teachers made intentional and unintentional curriculum deviations, including simplifying different activities within the "Once Upon a Time…" curriculum book. However, simplifying the curriculum to make it logistically less complex to implement had implications regarding the overall amount of rigor. For instance, in making adjustments to the Storytelling Center, Ms. Little presented students with the options of writing and drawing to accompany their audio recordings; yet, she also took away other options that had been recommended within the curriculum book. As noted in Figure 4.3, the Storytelling Center was a space for students to tell stories "in a variety of modalities" and "choose from a variety of media to tell their stories" ("Once Upon a Time…" curriculum book, p. 4).

Centers: Each day, there will be two centers each day for children to rotate between. One center will be a **Storytelling Center**, and the second center will be different each day. The **Storytelling Center** provides children with an opportunity to capture student voices through storytelling in a variety of modalities: acting, writing, drawing, and recording. Children will be able to choose from a variety of media to tell their stories. Additionally, each child will have a folder to hold his/her work so that he/she has a place to store things from day to day. To assist students in creating stories, there will be prompts that correspond to the concept of the day. Students will be encouraged to share their stories via an audio recording. Teachers should attempt to record each child each day, as long as students are ready and willing to record. Teachers can and should build in time for students to share what they are doing with each other. At the end of camp children will have a collection of stories, and hopefully a digital anthology that they can share with friends and family. In addition, the **Storytelling Center** can be used as an optional place children can go if they finish other activities early.

Figure 4.3. A description of the Storytelling Center within the curriculum book, emphasis added.

Ms. Little explained that for this center she had students create pictures since this was something they seemed to enjoy, and because it was a way to scaffold instruction and support students in re-telling the stories they had created. She stated,

> They loved to make pictures. And I actually—I don't know if that was the lesson plan every day to draw a picture with their story. I just always had them because they gravitated towards that, it made them use the other materials they liked, and it actually helped them focus on telling their collection today by just having like a picture on their paper. (Amanda Little, Interview with Amanda Little and Lauren Sykes, July 26, 2018)

In her explanation, Ms. Little acknowledged her limited experience with the curriculum and the fact that she was not aware if daily drawings were part of the lesson plan. In

reducing the complexity of this center, she took away some opportunities for differentiation, and perhaps influenced student engagement since there were fewer options from which students could choose. These characteristics of rigorous curriculum were taken away from or reduced within the task, influencing the rigor of the activity and resulting in potential for missed instructional opportunities.

Another missed opportunity occurred on Day 3 of the SI during the whole group activity. For this activity, students were tasked with participating in a setting design challenge with the learning objective being aimed at having students consider the connection between setting and emotion. In the midst of activity implementation, the teachers' actions suggested they were aware that the activity they enacted did not accurately reflect or align with the activity explanation and goals, resulting in different learning outcomes for students. Specifically, as part of the setting design challenge, students were to be introduced to the task by selecting an emotion they wanted to convey through a setting. Then, they would work with other children who chose the same emotion to create a setting that conveyed their group's emotion, including "three components/characteristics that evoke the emotion" ("Once Upon a Time…" curriculum book, p. 31). This activity aligned to the learning objective that students should be able to "distinguish between different settings and the feelings they evoke within us" ("Once Upon a Time…" curriculum book, p. 27). However, students were not grouped by emotion, which ultimately led to the focus of the activity being about designing an elaborate setting, rather than having students consider the connection between setting and emotion and incorporating elements into their setting to depict a particular emotion. The task implementation is detailed in the following vignette.

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Ms. Sykes tells the students they will be building a setting. She reviews the task using a teacher-made list that indicates step 1 is to "choose a setting." She explains the rest of the task and tells children they will be grouped by feeling/emotion they want to convey; however, there seems to be confusion regarding how to group students. They decide to group students by tables and Ms. Little reviews the steps of the challenge again, as though she is trying to understand the directions herself.

The children begin working on designing their setting. After working in their groups, Ms. Sykes tells the students they will share their settings and feelings that go with them. During the gallery walk the teachers facilitate discussion and ask questions demonstrating they are trying to have students make connections between setting and emotions. For instance, the teachers ask what feelings are associated with a particular setting, and "What kind of feeling does that give you?" Despite this, it is evident the emotional component of the task was secondary for students and possibly an afterthought since most, if not all, of their focus went into the design of the setting. (Observation field notes, SI Day 3)

In the above vignette, the teachers' confusion over how to group students led to missed instructional opportunities since the focus of the task shifted as a result of this curriculum deviation. Instead of students working together based on a shared interest of depicting a particular emotion, they were randomly grouped together and their attention was focused on creating a setting, rather than thinking about the connection between settings and the emotions they can evoke. When facilitating discussions about students' designs, the teachers prompted students with questions about emotions associated with their settings, encouraging students to think about this connection and to achieve the learning objectives of the task and lesson. This suggested that the teachers were familiar enough with the curriculum to know this was the intended take-away but were less familiar with the more minute details (i.e., how to group students) that were designed to support students' mastery of learning goals. Ultimately, since the emphasis of the task explanation was on designing a setting, this received the most attention from students and resulted in a missed instructional opportunity for students during this activity. While the

teachers tried to direct students to make the connection between setting and emotion in conversations toward the end of the activity, suggesting they saw the value in making this connection, the lack of clarity at the beginning of the activity led to a focus not aligned with the big ideas of the lesson. If the teachers had more experience with the curriculum, there might not have been confusion about how to group students and this missed opportunity could have potentially been avoided.

These examples demonstrate that limited experience regarding a curriculum can result in missed instructional opportunities. Specifically, if the enacted curriculum does not reflect the curriculum as it was designed, the implemented tasks and activities may not be as rigorous as intended or may not be as strongly aligned to the learning goals and objectives. Despite this challenge, the two SI teachers and student-teaching assistant did have access to and make use of reference tools (i.e., the curriculum book and sticky notes) to address areas in which they had limited curricular experience.

Reference tools to address limited curricular expertise. One way adults addressed gaps in curricular expertise during the SI was by utilizing reference tools to aid them in curriculum implementation. Since the teachers had limited curriculum experience, having such tools nearby helped them to address the challenge of implementing an academically-challenging curriculum.

"Once Upon a Time…" Curriculum. One reference tool the two teachers and student-teaching assistant all had access to was a hard copy of the curriculum book that housed the SI lessons, which they referred to throughout the intersession. While non-instructional moments (e.g., prior to students arriving for the day, transitions between activities, and snack time) were instances in which the curriculum was most often

referred to by the two teachers and the student-teaching assistant, use of this reference tool also occurred during instructional time. For instance, when Ms. Little conducted the read-aloud on the first day of the SI, it was observed that she had "the read-aloud book and curriculum in her lap" (Observation field notes, SI Day 1). Furthermore, this was not limited to the teacher leading instruction, as it was also noted that Ms. Sykes was sitting with the group of students and had her curriculum book next to her during this time.

During the Opening Circle on Day 5 of the SI, both teachers again had their curriculum books open as they facilitated a discussion based on the "Minefield" obstacle course students had just completed. The teachers reminded the students what made an event dramatic, had students share a dramatic event that happened to them with a buddy, and added to the Dramatic Event anchor chart. Although this implementation did not precisely mirror what was stated in the curriculum, the teachers did focus the discussion on the purpose of the Opening Circle and add to the relevant anchor chart. (See Figure 4.4 for an excerpt from the curriculum book).

> After the *Minefield* game, have children share how they were a good partner or how their partner helped them get across the room/blacktop.
>
> Revisit the purpose of the Opening Circle. Remind children that dramatic events (e.g., problems, challenges, and obstacles) make games and stories more interesting.
>
> **Add or refer to relevant anchor charts.**

Figure 4.4. Curriculum description of the Opening Circle discussion on Day 5 of the SI, which was similar to the teachers' implementation of this activity.

It cannot be claimed that the discussion was centered on the purpose of the Opening Circle simply because of the presence of the curriculum book as a reference tool. It is possible that the teachers would have facilitated the discussion in the same or similar manner with or without the curriculum book present. However, the proximity of the

curriculum book next to each teacher during this task suggests that the teachers used this as a tool to reference as needed when implementing the SI curriculum.

 Sticky notes. The teachers also took materials from the curriculum book by recording discussion prompts onto sticky notes, using a different tool with increased flexibility. The following vignette highlights how the teachers made use of sticky notes with materials from the curriculum book as a reference tool during instruction.

> Ms. Little is leading the read-aloud of *Knuffle Bunny Too,* having explained to students they will say "uh oh" when a dramatic even occurs within the story. She begins to conduct the read-aloud, while Ms. Sykes is seated on the floor with the students. As she reads, Ms. Little stops periodically to ask questions and remove post-it notes she has stuck to various pages throughout the book. Questions posed include how the character feels and why, what/why did a student say "uh oh" during a certain part of the text, and "What kind of emotion is she feeling right now?" (Observation field notes, SI Day 5).

In the above vignette, Ms. Little had placed sticky notes throughout the read-aloud text to indicate places where she would ask questions. Furthermore, the questions included in the description above were the same as or similar to those in the curriculum book that Ms. Little had annotated by highlighting (Figure 4.5). This suggests that she recorded questions from the curriculum book and then used a different reference tool (i.e., sticky notes) throughout the text to indicate at what point she should pose pre-determined questions.

 Ms. Little also used sticky notes placed throughout the book when she conducted the Day 3 read-aloud, *The Adventures of Beekle: The Unimaginary Friend.* Again, Ms. Little used sticky notes to write curriculum-suggested questions about the text and place them throughout the read-aloud book itself. A curriculum excerpt and images of the sticky notes on which Ms. Little recorded read-aloud questions and placed with the text are depicted in Figure 4.6.
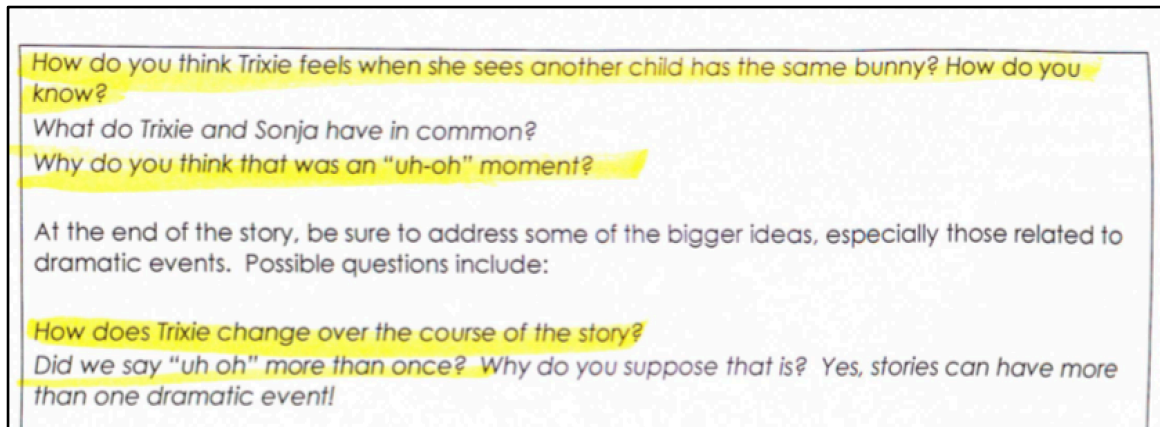
Figure 4.5. Ms. Little's annotated curriculum book for the Day 5 read-aloud, demonstrating how she used a reference tool when implementing instruction.
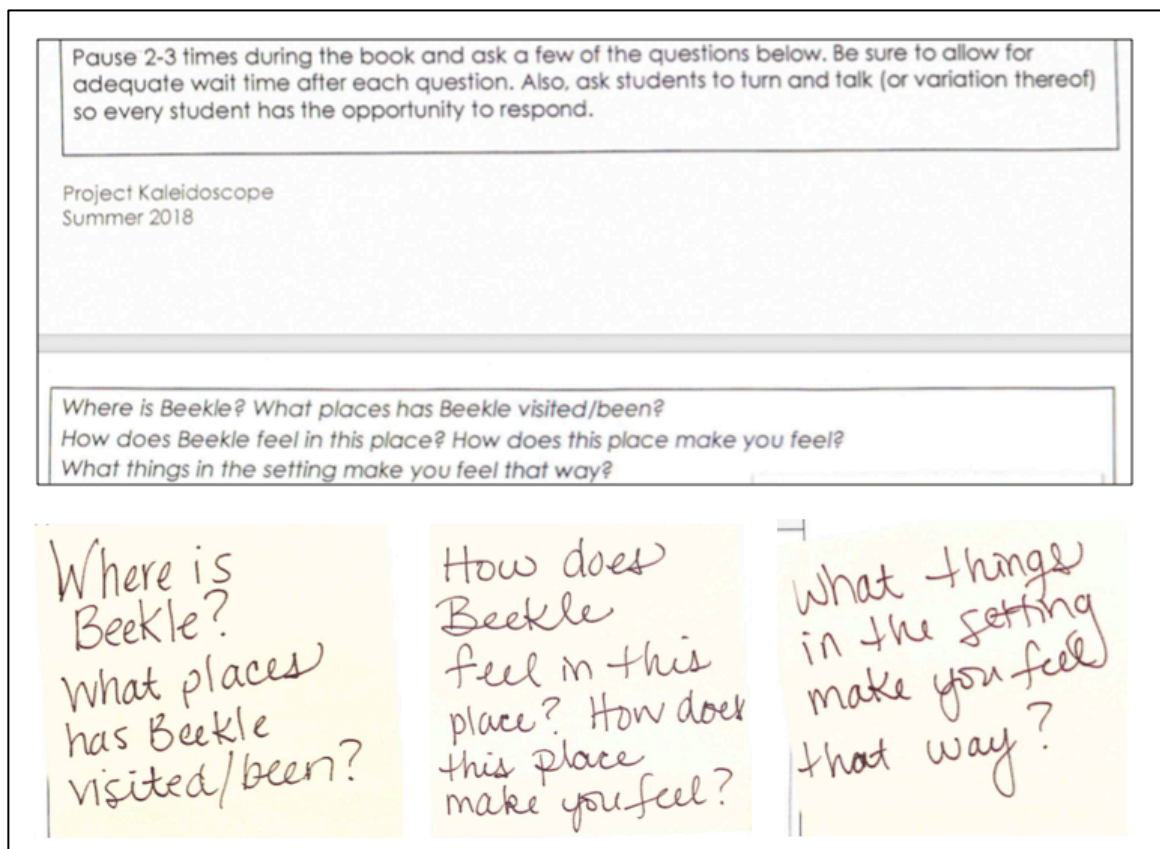
Figure 4.6. Curriculum book excerpt from the Day 3 read-aloud and post-its written on by Ms. Little and referred to while conducting the read-aloud.

These examples demonstrate that the curriculum book served as a reference tool in its

original form and was also used to transfer to curricular material to other forms (i.e.,

sticky notes as a reference tool) to allow for ease of use by the adults who had access to the reference tools.

Supporting instruction without curriculum experience. Parent volunteers who participated within Camp Kaleidoscope lacked curricular experience since they were each only present for one day of the SI, did not have access to a curriculum book, and did not arrive prior to students when the other adults collaborated and prepared for instruction. Although they lacked curricular experience, and were not expected to possess such experience, there were also instances in which secondary adults involved in Camp Kaleidoscope served as instructional support without needing curricular experience.

On Day 7 of the SI, the two parent volunteers present aided students during the whole group activity. Since Ms. Little had just modeled the task to students, the parent volunteers were familiar with what was expected of the students and the task that they would be completing, thus removing the need for the adults to have curricular experience to be able to support instruction. After Ms. Sykes' announcement, both of the parent volunteers worked with the small group their child was in, and the two teachers circulated among the different groups (Observation field notes, July 25, 2018).

The parent volunteer on the final day of the SI was also able to support the students without possessing curriculum experience. On this day, the students were sharing the collaborative stories they created the day before; however, one student was absent so the role he was supposed to play was not going to be filled. The parent volunteer worked with this group (one of his two children attending the SI was in this group) and presented with this group, taking on the role of the absent student. As the different groups rehearsed their performances, Mr. Hoyt (pseudonym) said, "I have my

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lines memorized" (Observation field notes, SI Day 8). When it was time for this group to present, Ms. Sykes told the class "We have a special guest star on this team" and the parent volunteer and group of students got up to share the collaborative story the group had created the previous day.

Even without experience with the curriculum itself, the parent volunteer was able to step in and fill the role of an absent student, giving him an active role during the whole group activity and demonstrating how he could be involved without curricular experience. Furthermore, since the teachers did not know that one of the students was going to be absent ahead of time, this was not a role that they anticipated the parent volunteer needing to fill. This suggests that secondary adults can provide support even if/when the primary adults leading instruction do not anticipate needing additional support. However, it is important that the teachers leading instruction have enough experience and familiarity with the curriculum that they are able to provide direction or guidance to secondary adults who have not been exposed to the curriculum. Ms. Sykes explained that the parent volunteers did not always seem certain of what they should be doing acknowledging, "So, in that aspect I feel like we needed to be a bit more organized to kind of give them better directions" (Interview with Lauren Sykes, July 25, 2018). This comment suggests that, at times, parent volunteers were uncertain regarding their role as part of the SI and would have benefitted from teacher guidance, but teachers' curriculum experience was needed for them to provide this direction to parent volunteers. Therefore, even though secondary adults did not necessarily need experience with the curriculum, if the teachers had limited curriculum experience, this led to missed opportunities during the SI.

Throughout this section, I described the pattern between limited curricular experience and missed instructional opportunities even when multiple adults were present during the SI. I also described ways the teachers and student-teaching assistant used reference tools to support their implementation of instruction. Finally, I described how secondary adults supported instruction without curriculum experience through guidance from teachers implementing instruction.

Chapter Summary

In this chapter, I described research findings based on my examination of the roles of multiple adults in a shared classroom setting. The findings were related to three major areas including: the actions of multiple adults involved in the intersession at Willow Elementary School, the interactions between and among multiple adults and students during the intersession, and the patterns between the "Once Upon a Time…" curriculum implemented during the SI and the various adults. Based on research findings, it is evident that actions of and interactions between and among multiple adults varied based on numerous factors and that a relationship existed between the academically-rigorous SI curriculum and the adults who were involved within the intersession. In the following chapter, I discuss implications of the previously described findings and consider implications within the context of both the macro and micro problems of practice described in Chapter 1 along with related recommendations.

Chapter 5: Discussion, Recommendations, and Limitations

This Capstone research study was born out of a concern regarding the historical and on-going underrepresentation of various populations in gifted education (e.g., Callahan et al., 2017; Crepeau-Hobson & Bianco, 2011; Ford, 1998). As such, I considered the role of multiple adults working together, coupled with the implementation of rigorous (i.e., academically-challenging) curriculum, as one approach to addressing the inequity that has existed in gifted education. Specifically, providing students identified as having gifted and talented potential, including those from underrepresented populations, with challenging learning experiences enacted by multiple adults, is one way to support students and nurture their gifts and talents. In the first chapter, I situated this study within a macro problem of practice regarding multiple adults in the classroom, as well as a micro problem of practice related to the specific context of Camp Kaleidoscope. Then, I discussed relevant literature related to underrepresentation in gifted education, rigorous curriculum, and multiple adults in shared classroom settings within the review of literature. Next, I described my methodological processes, including data analysis. In the previous chapter, I detailed findings that aligned to the research questions posed within this study. In this chapter, I include a discussion of broad implications based on this research, provide recommendations specific to the study context that could be employed to support gifted students and those with gifted potential attending future iterations of Camp Kaleidoscope, and describe specific implications related to this study.

Additionally, I address noted limitations of this study and reflect upon this Capstone research experience.

Findings for this study related to my research questions regarding the actions and interactions of multiple adults, as well as patterns between adults and rigorous curriculum. In conducting this study, it became evident that important factors related to actions and interactions of various adults throughout the SI included the roles of the various adults (i.e., teacher, parent volunteer, student-teaching assistant), experience with and access to the curriculum, and amount of time involved in the SI. Additionally, patterns between the adults and the curriculum also emerged. These related to curriculum modifications and changes based on various factors, including teachers' planning for instruction implementation, the presence of multiple adults, and curriculum experience. Since this study was designed to address a macro and micro problem of practice related to the roles of multiple adults, I begin with a discussion of broad implications related to the macro problem of practice, followed by specific recommendations to address the micro problem of practice, and then consider specific implications aligned to findings from this research study.

Discussion

It was important to examine the actions and interactions of multiple adults in a shared classroom space to understand how multiple adults can work together to best support the needs of students in the same classroom. While researchers have noted increased instances of multiple adults working together, including co-teaching partnerships (Friend et al., 2010), some have claimed that a greater focus has been on complying with legislation about meeting the needs of all students (Nichols et al., 2010),

rather than to *actually* meet the needs of all students. However, if there are going to be multiple adults working together in shared classroom settings, developing an understanding of how these adults can work to best support students, including gifted students and those with gifted potential, is critical. Since this study was designed to examine the roles of multiple adults working together to better support students' learning, including those students from historically underrepresented populations in gifted education, in a small way, this study begins to address this macro problem of practice.

Making Connections from Research to Practice

Based on findings from this research study, there are several components to consider regarding multiple adults in shared classroom settings. First, this research study adds to the literature on multiple adults of varying roles working together in the same classroom and can be extended to practical applications. In regard to adding to existing literature, there has been a call for additional research on multiple adults in shared classrooms regarding co-teaching (Cook et al., 2017, Embury & Kroeger, 2012) and parental involvement (Benson et al., 2008; Walker et al., 2011). Even though this study was not specific to co-teaching, both teachers within this study referred to this partnership in this way demonstrating a connection. Parents working as volunteers in school settings is one aspect included within the broader phrase "parental involvement" (e.g., Benson et al., 2008; Jeynes, 2012), indicating that research findings related to the role of parent volunteers during the SI adds to this area of literature as well. Additionally, this study adds a unique component to the literature since it was focused on three major areas all working in concert: multiple adults in a shared classroom, rigorous curriculum, and fostering students' gifted and talented potential.

Importantly, this study allows for connections between research and practice, addressing the macro problem of practice. Given the frequency of multiple adults working together in the same setting, this has implications for both in-service and pre-service teachers. For instance, if in-service teachers are placed into or opt into a setting where they are working with other adults to support instruction, training is necessary so they can determine best approaches to effectively implementing this approach to instruction. If the teachers do not receive training and support on how to work with other adults, it is possible that their teaching practices will not change, thus reducing the benefits and intended goals of having multiple adults in the same classroom. In addition to training in-service teachers who are or might be part of a collaborative partnership with other adults, pre-service teachers should also have opportunities to engage in and be prepared for the potential of working in the same setting as another adult. Some teacher preparation programs have begun implementing a co-teaching approach to student teaching (e.g., Tschida et al., 2015). This is a start for preparing PSTs for collaborative work settings, but this preparation should extend to other educational experiences beyond the student teaching experience, such as methodology courses. Since there has been an increased interest in co-teaching (Friend et al., 2010), therefore more instances of having multiple adults working together, it is necessary to provide support and training to pre- and in-service teachers so they are prepared to effectively work with other adults in shared classroom settings. Specific implications related to teacher preparation for working with multiple adults and in-service teachers working with other adults in shared classroom settings is further explored later within this chapter.

Additional examination of the roles of adults serving in particular roles in shared classroom settings, especially those areas where more research is needed, is a step toward more fully understanding how multiple adults can work together to better support students and positively impact learning for all students. When utilizing rigorous curriculum within gifted and general education settings, multiple adults working together can help to facilitate high-quality instruction intended to support student learning and nurture students' gifted and talented potential. Future research aimed at examining the actions and interactions of different pairings or grouping of adults, such as that between a general and gifted educator or an in-service and pre-service teacher, can add to what is known about best practices when adults collaborate to implement academically-challenging curriculum.

Factors to Consider when Multiple Adults Work Together

Findings from this study align to existing research regarding factors that should be considered when determining co-teaching partnerships or other pairings of adults working together in a classroom. Specifically, these factors include the following: choice in working in a setting with multiple adults, opportunities for collaboration, clear role expectations, and training related to working with other adults. As such, these factors have implications when adults work together and should be considered prior to and throughout a working partnership between multiple adults in shared classroom settings and by those who are responsible for establishing such partnerships.

In the meta-synthesis on co-teaching, Scruggs et al. (2007) stated that "many teachers maintained that it was necessary that co-teachers volunteer to teach together" (p. 403). Although participants in this study did not explicitly state this as a key factor, all of

the multiple adults involved within the SI elected to be part of the process and chose to participate in Camp Kaleidoscope. Furthermore, Ms. Little and Ms. Sykes described past experiences of working together and that this was a positive influence in their approach to shared instruction throughout the intersession. As such, before administrators (or other professionals in charge of scheduling and planning) determine that two teachers will be working together in a shared setting, it would be beneficial to identify which adults would be interested in such a collaboration. While this is the perhaps the most optimal way to pair teachers, given that teachers working together are often paired because they have differing and specific areas of expertise (Friend et al., 2010), this may not always be plausible. An alternative approach then, could be for administrators to have educators who are specialists in a needed area of expertise (e.g., special education teacher, literacy specialist) identify general education teachers with whom they believe they could have a successful teaching partnership. While the option for teacher choice and buy-in when working with others in a shared classroom is an important component that administrators should consider, it must be acknowledged that due to scheduling conflicts and other logistical reasons, this may not always be possible.

As such, time for teachers and other adults to work together and collaborate are important factors when multiple adults work together, especially if they do not have prior experience working with one another or did not opt into the partnership. Within the context of this study, the SI teachers took advantage of the opportunity to work together before and after instruction. The two teachers, and often the student-teaching assistant, arrived at the school more than 30 minutes before the students arrived to prepare the day's lesson together. Moreover, they demonstrated a willingness to work together to

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collaborate, rather than separating instruction and working separately to implement the curriculum. The need for collaboration, including time for planning, is a noted component within literature for adults working together. Time to plan together was a noted factor in successful co-teaching (Allen et al., 2014; Brown et al., 2013; Cook & Friend, 1995), as well as other pairings of adults working together (Biggs et al., 2016; Henley et al., 2010; Peercy et al., 2015). Therefore, when working with other adults, having time to collaborate outside of instructional time is key.

Clear expectations regarding adults' roles is another important consideration. Whether adults are employees of a school system, university students, or parent volunteers, clear expectations allow for individuals to know what is expected of them and to be able to perform in their given role. In a study by Embury and Kroeger (2012), the researchers noted unclear co-teaching expectations that resulted in variations of how students viewed teachers and their roles in two co-taught classrooms. Similarly, in their study on general educators and special educators working together, Nichols and Sheffield (2014) explained that participants believed that being aware of "professional expectations, assisted them with collaboration" (p. 40), suggesting a connection between clear expectations and successful collaborative experiences. Although I noted that the teachers' interview responses suggested a strong understanding of their role and that of the student-teaching assistant, both Ms. Little and Ms. Sykes struggled to articulate the role of parent volunteers. Furthermore, the parent volunteers themselves seemed unsure of their role at times. When adults work together in classrooms, including those environments beyond the system of Project Kaleidoscope, clear expectations can serve as a guide regarding adults' actions and interactions within the classroom setting.

Another factor that is important to consider when working with multiple adults are training opportunities for teachers and other adults, which were noted in numerous research studies as being necessary supports for multiple adults working together (e.g., Jones et al., 2012; Murawski & Hughes, 2009; Pancsofar & Petroff, 2013; Sweigart & Landrum, 2015). This idea was echoed by the SI teachers who described the need for training when multiple adults are working together during the regular academic year. This suggests that the need to train teachers when working in a setting with other adults is not limited to the process of Camp Kaleidoscope, nor is it specific to working with students in a gifted education setting or with students who have been identified as having gifted potential. The need for training for adults working together extends beyond that of Camp Kaleidoscope to a variety of contexts in which adults are in shared classroom settings to meet the needs of students.

Purposeful Partnerships between Multiple Adults and Rigorous Curriculum

Since the goal of having multiple adults work together in the same classroom setting is to support students in the classroom, it is understandable that the adults who work together should be paired purposefully to best meet the particular needs of a given group of students. This should be considered when administrators, or others in charge of planning, place or request multiple adults to work together. Furthermore, the curriculum that is used within these settings should be academically-challenging and designed to support all students' learning. As Tomlinson (2005) explained, "much of what constitutes good curriculum and instruction for gifted learners is actually much like what constitutes good curriculum and instruction for virtually all learners" (p. 161). As such, although this study was rooted in supporting students identified as having gifted potential, having

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multiple adults work together to implement rigorous curriculum to support students'

learning is not limited to a gifted education context. Therefore, teachers should be placed

together purposefully, and through the use of an academically-challenging curriculum,

can work to implement instruction to meet the needs of students within the classroom that

they teach. Implications regarding the design and implementation of rigorous curriculum

will be further described later within this chapter.

Additionally, it is important to consider the relationship that exists between one's

willingness to rely on another adult and the potential benefits another adult will have on a

shared classroom setting. There were two days during the SI that a parent volunteer was

signed-up to volunteer at the intersession, but was unable to attend. Instruction on these

days was enacted as planned, suggesting the lack of the volunteers' presence did not alter

instruction since the teachers were not relying on these other adults. However, had the

teachers been reliant upon these volunteers for support, this could have posed a challenge

to the daily lessons when they were not present. This suggests a trade-off since relying on

another adult can create dependency on that person, which can lead to challenges if the

other adult is not present when expected. However, the reverse can also be true; if

teachers are not willing to rely on secondary adults, this can lessen the impact when these

other adults are present. Therefore, it is important to have purposeful partnerships when

adults are working together so that the presence of additional adults can achieve intended

benefits of this approach to instruction.

Recommendations

To achieve the goal of increasing the number of students from underrepresented

populations who are nominated and identified for gifted education services, as well as

other goals identified within the larger research study, Moon and colleagues (2015) designed a three-pronged intervention model as part of Project Kaleidoscope. This study was focused on one aspect of the intervention model—the two-week summer intersession, referred to as Camp Kaleidoscope. As such, the following recommendations are offered as a means for supporting students who participate in Camp Kaleidoscope as this relates to the multiple adults present during the SI and the rigorous curriculum that was implemented. These recommendations are based on findings discussed in the previous chapter and are detailed in the sub-sections that follow.

Recommendation 1: Additional curriculum supports for multiple adults

Implementing an academically-challenging or rigorous curriculum is one approach to support students' learning (e.g., Little, 2012; Tomlinson, 2005). However, given the complex nature of such a curriculum, teachers may face challenges when implementing rigorous curriculum, especially if or when they are the only adult in the classroom. At times, even with multiple adults present, teachers during the 2018 SI at Willow Elementary School experienced challenges relating to limited curriculum experience, which led to missed instructional opportunities. Although challenges with the rigorous curriculum were experienced, the two teachers and student-teaching assistant used reference tools to support them throughout the intersession. Therefore, I recommend additional curriculum supports for the various adults to utilize when implementing the SI to further develop and support their curricular experience.

Recommended supports within the SI curriculum book. As evidenced in the previous chapter, Ms. Sykes and Ms. Little interacted with their curriculum books that housed the SI lesson plans on a daily basis. This included highlighting text within the

lesson, writing summarizing notes within the margins, and other notes such as student groups, and which teacher was leading a particular part of the lesson. Based on research findings, the teachers frequently used the curriculum book as a reference tool; however, even with this tool, limited curriculum experience still led to instances of missed instructional opportunities. Given teachers' frequent interactions with the curriculum book, I recommend embedding additional supports within the curriculum book that are designed to highlight key ideas of the lesson and call attention to important components that might otherwise be missed given the extensive and detailed nature of the curriculum book. Specifically, I recommend that embedded supports be added in the form of "call out boxes" within the margin of the curriculum book to direct readers' attention to important notes and provide them with helpful information to draw upon when implementing the curriculum.

Including call out boxes as a way to provide embedded curriculum support can allow for recommendations for addressing challenges commonly associated with implementing rigorous curriculum, as well as a pointed focus on characteristics of rigorous curriculum. While the content within these call out boxes can be varied, I recommend that there be a focus on the following:

- recommendations for actions that can be taken by additional adults present,
- instances that could allow for rich data collection,
- and other curricular considerations, including grouping strategies, potential curriculum extensions, and connections between Enduring Understandings and curriculum activities.

Incorporating such tips and recommendations throughout the curriculum can then serve as reminders and guide posts for teachers and other adults implementing the curriculum. Examples of call out boxes as a means to provide additional curriculum support are included in Figures 5.1-5.3. Providing such tips could also support teachers maintaining a focus on characteristics of rigorous curriculum, even when fewer adults are present.

In addition to serving as a support for teachers implementing the curriculum, this could also be a support for secondary adults, such as a student-teaching assistant. Jada used her copy of the curriculum book to review daily lessons and record notes to herself regarding actions she would take during the course of the day. This suggests that she (and other student-teaching assistants) might benefit from additional curriculum support such as those in the "Tip for Teachers" call out boxes. While Jada collected student data at times during the SI, specific "tips" such as opportunities for rich data collection would provide additional guidance for secondary adults who might be unfamiliar with data collection and unsure of when to record such data.

Read Aloud: *The Thing Lou Couldn't Do* 9:15 – 9:35 20 minutes	Materials Book: *The Thing Lou Couldn't Do* Relevant anchor charts
Purpose The purpose of this read-aloud is to demonstrate that character traits are both context-dependent and can change over time.	

Conduct read-aloud, emphasizing Lou's character traits. Select a few critical stopping points to ask questions (perhaps three or four). Be sure to allow for adequate wait time after each question. Also, ask students to turn and talk (or variation thereof) so every student has the opportunity to respond to at least one of the questions.

Possible questions include:
    Take a look at the cover illustration. What do you suppose Lou can't do?
    How would you describe Lou now?
    Based on how you described Lou, how would you expect her to act?
    Do you think Lou will eventually succeed at climbing the tree? Why? What does this tell us about Lou?
    How would you describe Lou when she first saw her friends in the tree? How would you describe her now?
    What are some ways that Lou changes over the course of the story?

Add or refer to relevant anchor charts.

Tip for Teachers: Good place to add to anchor charts.

Figure 5.1. Example of additional curriculum support in the form of a sample call out box with a recommendation for what an adult may do when multiple adults are present.

Emoji Graffiti Activity. Teachers direct children's attention to the four emoji chart papers hung around the room or placed on tables. The chart papers should have an emoji at the top depicting specific emotions (e.g., happy, scared, sad, excited). The teacher explains that children will bring their puppets and will rotate in small groups to each emoji chart paper. The children should spend about 2-3 minutes at each chart (explained below). Children should be encouraged to write and/or draw on the chart paper and the teachers can also write down ideas. When the children walk to the charts they have two jobs:

    a. Children write or draw places where either they or their puppets could or have felt that emotion (i.e., at the "scared" anchor chart children will record various places where they are scared such as a haunted house, the doctor's office etc.)

    b. The children draw things about the place that conjures emotion that the emoji is evoking and write words associated with the place and feeling.

NOTE: These charts will be used in the whole group activity about designing a setting

> Tip for Teachers: Nice opportunity for open-ended questions and data collection.

Figure 5.2. Another sample call out box within the SI curriculum. This example is related to a tip for data collection.
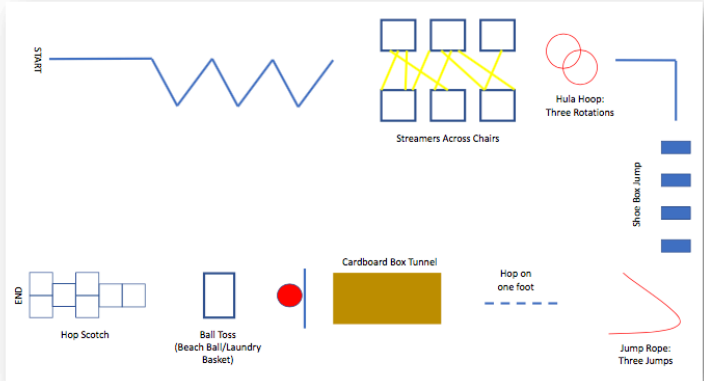
Whole Group: Obstacle Course	Materials
9:45 – 10:40 55 minutes	Various obstacle course supplies

Purpose
By encountering obstacles, children will concretely explore how—when things are put in their way—life can become a bit more challenging. Children will start with uncomplicated obstacles, and then the obstacles will increase in complexity. Afterwards, teachers will facilitate a discussion to formalize children's understanding of obstacles.

Prior to the whole-group activity, create a pattern using painter's tape (or, if outside, chalk), starting with a simple straight line. Then complicate it a bit. Make sure the obstacle course is accessible for all of the students in your class. Here's how your course might look, but create something that works for your space:

> Tip for Teachers: Extension—Have students work as a team to *collaborate* and change the course.

Figure 5.3. A sample call out box to use when implementing the curriculum that is related to additional opportunities for differentiation within the curriculum.

Although, Jada had access to a copy of the curriculum book throughout the intersession, the same cannot be said for all student-teaching assistants from the treatment sites within the Project Kaleidoscope system. As such, I also recommend student-teaching assistants be provided with their own copy of the SI curriculum book so they

can use this reference tool as a support while they work with teachers and students over the course of the intersession. Providing supports within the curriculum book is one way to address the challenge of implementing a complex, academically-rigorous curriculum, especially when adults have limited experience interacting with and enacting said curriculum and use the book as a reference tool. Curricular supports can also be created to exist outside of the curriculum book to provide access to supports for all adults involved in the intersession, including those who are present for shorter periods of time (i.e., parent volunteers).

Additional supports related to the SI curriculum. During the SI, parents of students attending Camp Kaleidoscope had the option to volunteer for one day during the intersession to observe, support, and participate in their child/children's learning. Unlike other adults, parent volunteers were only present for one day of the intersession so that a number of parents had an opportunity to be part of Camp Kaleidoscope. Furthermore, they did not have access to a curriculum book. When present, parent volunteers generally acted as observers of instruction and provided non-instructional support, with limited instances in which they provided instructional support. To provide parent volunteers with opportunities to familiarize themselves with the daily lesson, potentially increasing opportunities to serve as instructional supports during the lesson, I recommend the creation and use of brief lesson overviews for parent volunteers.

As part of the curriculum materials during the 2017 SI, members of the research team created "one-pagers" for center activities. While such overviews were not included during the 2018 SI, providing parent volunteers with an overview for the entire day's lesson (as opposed to just center activities) could provide them with relevant knowledge

regarding the daily lesson plan. As such, I recommend that daily lesson overviews (no more than one page) be created and shared with parent volunteers to provide them with a general sense of the lesson being implemented on the day they are volunteering.

By creating an overview for each daily lesson, parent volunteers can have access to the general structure of the lesson for the day they are volunteering. In this way, parent volunteers can become more familiar with the curriculum by having an abbreviated version that includes information and recommendations relevant to them, as opposed to having all of the detail (e.g., scripting) included within the curriculum book. Like the embedded curriculum supports in the curriculum book, I recommend adding overviews that would be tailored to include tips to support their intended audience (i.e., parent volunteers). Examples of tips might be non-instructional in nature, such as directions for setting up an activity and materials, or instructional, including samples of open-ended questions the volunteer might pose to students when engaging in discussion. An example overview is included in Figure 5.4. Additionally, since it was noted in Chapter 4 that the parent volunteers and teacher interactions were brief and occurred during instruction, overviews are a way to provide parent volunteers more information without taking the teachers away from instruction. In this way, the limited interactions between parent volunteers and teachers do not serve as a gatekeeper or limitation to parent volunteers being able to actively participate and support instruction while volunteering during the process of Camp Kaleidoscope.

Camp Kaleidoscope	Day 2: Creating Attachment to Character

Daily Overview (Times are Approximate)

Opening Circle	9:05 – 9:15 (10 minutes)

- *Activity Description:* Children will greet each other playing a game to determine if they are more of one trait (e.g., brave) than another (e.g., scared).
- You may add to the "Characters" and "Character Traits" anchor charts during this time, recording what students say onto the relevant anchor chart. *Note: Teachers can show you where/what these charts are.*

Read Aloud: *The Thing Lou Couldn't Do*	9:15 – 9:35 (20 minutes)

- *Activity Description:* The teachers will lead a read-aloud of a story.
- This is a great chance for you to observe and notice the types of questions teachers ask, such as questions with multiple possible answers or no "wrong" answers."
- You may add to the "Characters" and "Character Traits" anchor charts during this time, recording what students say onto the relevant anchor chart.

Whole Group: Puppet making	9:35 – 10:30 (55 minutes)

- *Activity Description:* Students will be creating puppets and including outside traits that could relate to the puppet's inside traits.
- During whole group discussion, you may add to the "Character Traits" anchor chart.
- Also, help students assemble their puppet using the hot glue gun and following their direction as to how to design the puppet. During this time, you may also ask questions to encourage students to think more about character traits.
  - What might this (insert physical feature here), suggest or tell us about your puppet?
  - How are you using outside traits to show your puppet is (insert character trait here)?

Snack Time	10:30 – 10:50 (20 minutes)

- During this time, you may distribute snacks, interact with students, add to anchor charts, or prepare for centers. Teachers can let you know what specific support they need.

Centers	10:50 – 11:35 (45 minutes)

- *Activity Description:* There are two centers: one where students are creating and acting out skits and the other where students are creating and audio recording stories. You may engage in support in the following ways:
  - Center A: Improv—Showing students what a "skit" is and demonstrating this to students by acting out a skit with one of the teachers
  - Center B: Storytelling—Asking students questions about the stories they are creating and/or helping to audio record stories. You might ask:
    - What trait are you telling a story about today? How did you show that in your story?

Closing Circle	11:35 – 11:55 (20 minutes)

- *Activity Description:* Students will work in pairs to learn more about their peers' puppets they created earlier in the day.
- This is a great chance to listen to students share their learning for the day and possibly add to anchor charts if new ideas are shared.

Closure: Clean-Up, Announcements, etc.	11:55 – 12:00 (5 minutes)

- This is a time for cleaning up and preparing for the end of the day. Teachers can let you know what specific support they need.

Have any questions? Please ask a teacher and they will be happy to help. Thank you for your participation in Camp Kaleidoscope!

Figure 5.4. A sample overview for the 2018 "Once Upon a time…" curriculum, SI Day 2. This is an example of a support tool that could exist in addition to and outside of the curriculum and could be used by adults who do not have or need access to the entire SI curriculum.

Recommendation 2: Clear guidelines and role expectations for multiple adults

Ms. Sykes and Ms. Little voiced a shared understanding or shared set of expectations regarding the responsibilities of the different adults during the SI. In particular, the teachers viewed themselves as facilitators of instruction, the student-teaching assistant as being invaluable regarding material set-up and activity preparation, and parent volunteers as extra supports who helped out occasionally based on their individual comfort level. Despite similar explanations, the teachers expressed that expectations for parent volunteers were less clear than their own roles or the role of the student-teaching assistant. Therefore, I recommend that the Project Kaleidoscope research team create expectations and guidelines for the various multiple adults (i.e., teachers, parent volunteers, and student-teaching assistant) to use as a guide to best support students during Camp Kaleidoscope and inform the adults of these expectations prior to their arrival at Camp Kaleidoscope. In addition to general expectations, I recommend members of the research team work in conjunction with SI teachers from each of the treatment sites create school-specific expectations. Specific examples and reasons for these expectations are detailed in the following sub-sections.

General expectations. Similar to the Camp Kaleidoscope Curriculum Overview and At-a-Glance document (Appendix A), I recommend members of the Project Kaleidoscope research team create an overview regarding general expectations for multiple adults serving in various roles during the intersession. When asked about considerations that should be made before placing adults, such as a student-teaching assistant or parent volunteer, in her classroom during the academic year, Ms. Sykes explained that understanding their role ahead of time is important.

Given the short duration of the SI and the likely challenge of finding a time for all adults to gather prior to the SI, I recommend that multiple adults be informed of role expectations prior to the SI, but acknowledge that this does not have to be in a face to face setting. Since the teachers from each of the five treatment sites participate in a training prior to the SI, expectations for the role of teachers can be incorporated into this training time. Teachers can inform student-teaching assistants of their role prior to the SI, since they are the ones who select and recruit these additional supports. Finally, camp reminders were sent home to all guardians of students several weeks prior to the intersession. The letters included a note for parent volunteers specifically, which could be expanded upon to include an overview of role expectations within the SI. Including an overview of parent volunteers' expectations in a letter can give parent volunteers a general sense of their role in the classroom, something Lewis et al. (2011) explained can make parents "more inclined to assist in the classroom and in children's academic efforts at home" (p. 230).

One recommended general expectation that could be included in such a document is for adults involved in the SI, including secondary adults, to arrive 15 minutes prior to the start of the daily lesson. For parent volunteers, this would allow for these adults to meet and interact with the teachers leading instruction prior to student arrival and the daily lesson beginning. Although it was requested that parent volunteers arrive approximately five minutes early, this did not occur at WES as evidenced in the actions of parent volunteers (Appendix I) and discussed in the previous chapter. By arriving early to the intersession, they will have more opportunity for increased interaction between and

among the various adults involved in the SI. This is a way for adults to ask any questions they may have or help with lesson preparation prior to students' arrival.

School-specific expectations. In addition to general expectations for all adults across the treatment sites, I recommend SI teaching partners work together with members of the Project Kaleidoscope research team to determine expectations or guidelines for adults involved in the SI that are unique to a particular school. This is key given the variation that exists even within these five sites in the same district. Since the intention of having multiple adults in a classroom is to best support student needs, and since student needs will vary from camp to camp (or class to class), acknowledging and allowing space for variation regarding the roles of multiple adults is critical. For instance, as part of the 2018 SI, not all teaching partners elected to have the additional support of a student-teaching assistant at their site, which has the potential to influence actions of the teachers and parent volunteers at that site. Other factors that could influence the role of multiple adults include the number of students participating in the intersession as well. Notably, one of the five treatment schools during SI 2018 had considerably more students than the other four school sites. As such, the ways in which the multiple adults approached curriculum implementation might vary based on having a larger student to adult ratio.

As mentioned, prior to teaching at Camp Kaleidoscope teachers from each of the school sites received training by members of the Project Kaleidoscope research team regarding the SI and the "Once Upon a Time…" curriculum. I recommend as part of the SI training for Camp Kaleidoscope 2019, members of the research team work with and provide support to the teaching pairs as they consider school-specific expectations for the various adults in the intersession, including the teachers themselves. Dedicating a portion

of the SI training for teaching partners to co-create school-specific expectations for multiple adults, provides time and space for the teachers to gain experience of working together and plan for curriculum implementation. Therefore, the teachers would be interacting with their teaching partner while simultaneously working to consider the roles of various adults involved in the SI at their particular school site.

By having SI teachers add to the expectations for multiple adults at their Camp Kaleidoscope site, their voices are being privileged and they are able to tailor expectations to their particular site. Furthermore, having teachers from the different school sites work to identify expectations during the teacher training, also allows for potential collaborations across schools. Since some teachers, such as Ms. Little, have taught during the SI multiple times, she might bring forward a recommendation or idea based on her prior experiences with Camp Kaleidoscope that teachers new to teaching the intersession may not have considered. Even though each school has a unique context with varying factors to be considered, institutional knowledge and recommendations for practice can be shared among teachers during the training regarding expectations and guidelines for adults of differing roles throughout Camp Kaleidoscope.

Recommendation 3: Teacher training on working with other adults

In addition to stated expectations, both general and school-specific, SI teachers should be provided supports in the form of training regarding how to work with other adults. Ms. Sykes explained that to have multiple adults working together during the school year, teachers would likely benefit from training. Her explanation suggests that working with other adults in shared classroom spaces is not something all teachers are accustomed to and that training could be a benefit to teachers. The idea of having more

opportunities to interact prior to instruction and to collaborate when working with other adults during the academic year was noted by Ms. Little as well.

Research also suggests the need for training when teachers work together in shared settings. In their meta-synthesis on co-teaching, Scruggs et al. (2007) explained "a very common theme across many investigations was the need for teacher training for co-teaching" (p. 404). Although the multiple adults working together in the SI went beyond that of co-teaching, both teachers referred to their shared approach to instruction as co-teaching, suggesting the relevance of this recommendation from Scruggs and colleagues. Relatedly, Sweigart and Landrum (2015) warned that "without attention to and training regarding their roles, practices, and effective collaboration, co-teaching may be equivalent to merely increasing the number of adults in the room without effectively changing their practice" (p. 28). Based on research and the SI teachers' feedback, I recommend teachers involved in future intersessions receive training specifically aimed at working with multiple adults involved in the SI.

It is important to note that due to scheduling conflicts, neither Ms. Little nor Ms. Sykes attended the 2018 SI training in its entirety. While the teachers not being present for the same training at the same time was a limitation in their ability to collaborate, members of the Project Kaleidoscope research team have discussed how to address this in future trainings. Specifically, it has been decided that two full trainings will be conducted if necessary, to accommodate the teachers' schedules in hopes that everyone can receive the full training with their teaching partner. In addition to this important step of providing the teachers with the full SI training with their teaching partner, there should also be time allotted for teaching pairs to get to know one another, discuss expectations for working

with other adults (as described in the previous recommendation), and provide explicit training on working with other adults, including common approaches to co-teaching.

Introductions. One component of having teachers work together with other adults is to provide time for them to interact and collaborate with one another. Although the teachers during the 2018 SI training did this throughout the training, there was limited opportunity for the partners to get to know each other and share their own educational beliefs. However, researchers have recommended that teachers work together to "develop a shared vision with regard to what they consider as good teaching and learning" (Flujit et al., 2016). Ms. Little and Ms. Sykes both attributed knowing each other and being familiar with the teaching style of the other as beneficial when working together. Even though all teaching pairs consisted of educators from the same school, it cannot be assumed that the teachers have worked together previously or know much about their partner or their teaching style. Additionally, as members of the same grade-level team, the teachers had prior experiences of collaborating together. While Ms. Little and Ms. Sykes already had these past experiences, setting aside time for teachers to get to know their teaching partners can be a valuable component of the SI training. In addition to an introduction between the teachers and Camp Kaleidoscope, I recommend the SI training include time for teaching partners to learn about each other, their teaching philosophies, and goals for the intersession as they align with goals of the Camp Kaleidoscope process.

Expectations and explicit training. Another component of training SI teachers to work with multiple adults relates to the previous recommendation regarding role expectations. In learning more about the expectations of the roles of adults in the SI, as well as creating school-specific expectations, the teachers would be able to spend time

considering how they will implement instruction when multiple adults are present. Furthermore, this is an opportunity for them to consider ways in which the various adults might work together to achieve the goal of supporting students during the implementation of a rigorous curriculum.

Finally, I recommend explicit training regarding working with multiple adults, including one's teaching partner. Examples of this training might include an overview of co-teaching approaches with discussion of which approaches are best to implement more often. As researchers have noted, the most common co-teaching approach, one teach/one assist (Scruggs et al., 2007), is not considered to be the most successful (e.g., Keely, 2015; Ploessi et al., 2010) in changing educational practices. Therefore, making teachers aware of other co-teaching approaches and providing time for them to consider when and how they can implement these various approaches could aid in strengthening SI teachers' approach to teaching with another adult.

Archibald, Coggshall, Croft, and Goe (2011) explained that "to be considered high quality, professional development must be delivered in a way that yields direct impact on teacher practice" (p. 3). Aligning training on multiple adults to the specific context in which teachers will be working has the potential to influence teacher practice when working with other adults. Overall, providing teachers opportunities to get to know their teaching partner and role expectations of different adults involved in the SI, along with training to prepare them to work with other adults, can support teachers as they work with adults of varying roles throughout Camp Kaleidoscope.

Alignment between Findings and Recommendations

The recommendations described within this chapter are grounded in research findings previously described. Furthermore, they are intended to support multiple adults as they work together to implement academically-challenging curriculum designed to foster students' gifted and talented potential. Table 5.1 depicts alignment between the aforedescribed recommendations, and the findings detailed within Chapter 4.

Table 5.1
Alignment between recommendations and research findings

	Rec. 1: Additional curriculum supports for multiple adults	Rec. 2: Clear guidelines and role expectations for other adults	Rec. 3: Teacher training on working with other multiple adults
Finding 1: The primary multiple adults (i.e., the two teachers) had equal opportunities for leading and supporting instruction and engaged in shared instruction.		✓	✓
Finding 2: Secondary multiple adults (i.e., parent volunteers and the student-teaching assistant) served in one of three roles: observer, non-instructional support, and instructional support.	✓	✓	✓
Finding 3: Interactions that took place between and among multiple adults and students varied based on two major components: (1) when the multiple adults were interacting (i.e., before, during, or after instruction) and (2) who was interacting.		✓	
Finding 4: When interacting or working with other adults in a shared classroom setting, the two teachers voiced benefits, as well as challenges.		✓	✓

Finding 5: Throughout the SI, the teachers made intentional and unintentional curriculum deviations, modifying instruction from that which was written in the "Once Upon a Time…" curriculum.	✓	
Finding 6: When fewer adults were present during the SI, the teachers' attention was more focused on task completion or managerial tasks, rather than developing enduring curricular understandings.	✓	
Finding 7: Teachers' limited curricular experience led to missed instructional opportunities even when multiple adults were present.	✓	✓

Implications

In the previous sections, I described large implications related to the macro problem of practice of this study and specific recommendations to address this study's micro problem of practice. Additionally, there are also specific implications that are noteworthy and should be considered in light of this research study and the aforedescribed research findings. Within the remainder of this section, I describe specific implications related to the following: curriculum design and implementation of curriculum, pre-service teachers and teacher preparation, co-teaching and multiple adults working together, and underrepresentation of certain populations within gifted education programs.

Curriculum Design and Implementation of Curriculum

Implementing academically-challenging curriculum has the potential to benefit students, including supporting the development of students' gifted and talented potential.

However, as described in the review of literature, there are also challenges when implementing rigorous curriculum. These challenges include but are not limited to a need for expertise in both pedagogy and content (e.g., Estes & Mintz, 2016; Hockett, 2009), alignment between the written and enacted curriculum (e.g., Azano et al., 2011; Ball & Cohen, 1996), collection of assessment data and use of this to inform instruction (e.g., Tomlinson & Moon, 2013), and time constraints (e.g., Beecher & Sweeny, 2008; Hartley & Plucker, 2014). As such, these challenges should be considered by instructional designers and curriculum developers tasked with creating and designing rigorous curriculum.

Given the need for educators to have content-area expertise when implementing academically-challenging curriculum, as well as the goal of moving students toward expertise (Hockett, 2009), this is an area that should be considered when designing rigorous curriculum. To support educators in gaining content-area expertise prior to implementing a challenging curriculum, instructional designers should include and draw attention to necessary background information related to the content of the lesson or unit. Thus, teachers are able to gain familiarity with relevant background information they may not have previously known if they lacked expertise in a particular area, addressing the challenge of lacking content-area expertise. Furthermore, this can address the challenge of the time-consuming nature that is oftentimes associated with implementing rigorous curriculum. If background information is included at the beginning of a unit or lesson, educators do not have to spend time searching for this information to then teach themselves prior to implementing instruction. This background information should include facts that educators need to know to implement a particular curriculum; a list of

or link to additional, related resources; and any additional content-specific information that educators should know prior to implementing instruction.

An additional challenge associated with implementing rigorous curriculum can occur when teachers' implementation of a curriculum is misaligned to the written curriculum in a way that reduces the rigorous nature of the written curriculum. Research has been conducted that highlights varying levels of alignment to curriculum (e.g., Azano et al., 2011; Pence et al., 2008). Therefore, it is important for curriculum designers to identify essential aspects that make the curriculum academically-challenging and should not be modified, as these are key components to the rigor of the curriculum. Acknowledging that the written curriculum and enacted curriculum do not always align is important, as curriculum designers can use this knowledge to highlight those aspects of the curriculum that should not be modified. This information could be included within the background information at the start of a lesson, as part of the described purpose for a particular activity, or in the form of call-out boxes to draw teachers' attention to these essential components of a curriculum that should be enacted as indicated.

To achieve benefits of implementing a rigorous curriculum, curriculum designers should consider including necessary background expertise within curricula and identifying key components of a curriculum that should be enacted as written to maintain curriculum rigor. By incorporating these practices into instructional design, curriculum can be created in a way that incorporates characteristics of rigorous curriculum, while simultaneously supporting educators in the implementation of said curriculum.

Pre-service Teachers and Teacher Preparation

A second implication based on this study is the role of pre-service teachers serving as multiple adults in classroom settings, as well as the role of teacher preparation programs in preparing future educators to navigate such classroom settings. As evidenced within this study, with fewer secondary adults present, the teachers' attention shifted from a focus on aligning instruction to enduring curriculum understandings to an increased focus on non-instructional tasks. This is an important consideration for PSTs during their teacher preparation programs, as it can be a challenge to complete all necessary non-instructional tasks while still focusing on instruction aligned to big ideas, especially given teachers' numerous responsibilities. Furthermore, despite an increase of multiple adults in shared classroom settings (Friend et al., 2010), this is not always the case. As such, PSTs need to be prepared to address both instructional and non-instructional needs within their future classrooms. Therefore, one recommendation for teacher preparation programs is to include a greater focus in pedagogy and methods courses that prepare them to effectively manage non-instructional components within their future classrooms. In doing this, PSTs will gain greater experience with classroom management, such as setting expectations and classroom norms, establishing classroom procedures, and other aspects related to classroom structure. With such structures in place, pre-service and novice teachers can place their focus on instructional tasks when in the classroom, including when implementing rigorous curriculum.

Another way to support PSTs as part of their teacher preparation program is to provide specific learning opportunities through coursework and field experiences related to working with other adults in shared classroom settings. According to findings from a

study conducted by Pancsofar and Petroff (2013), "special educators were more likely to be prepared during their initial training to engage in co-teaching than were general educators" (p. 92). However, there should be greater opportunities for all PSTs to receive training on working with other adults so that they can be prepared if presented with an opportunity to work with others once they are in-service teachers.

An additional implication to consider is that of the partnerships that exist between teacher preparation programs and local K-12 schools. While field experiences are common components of teacher preparation programs, university-school partnerships could work to implement a co-teaching approach to PST preparation, such as in the study described by Tschida et al. (2015). Opportunities to "practice" teaching have been identified as important for teacher preparation (Grossman et al., 2009; Lowenberg Ball & Forzani, 2009) and providing PSTs with the experience of working with an in-service teacher as a "co-teacher" or additional supporting adult is one way in which this practice can occur. Having another adult, in this case, a future educator, providing additional support has the potential to aid in-service teachers as well. Since the goal of having multiple adults in a classroom is to change and enhance instruction (e.g., Ploessi et al., 2010), this is an area for future research if PSTs are to work as supports with in-service teachers. Specifically, I recommend research be conducted in settings where PSTs are working to support and learn from in-service educators in shared classroom settings to examine if the presence of PSTs leads to changes in instruction for in-service educators.

Co-teaching and Multiple Adults Working Together

Educational legislation has been noted as a key factor in the increase of multiple adults in shared classroom settings, particularly in regard to co-teaching partnerships.

However, Nichols et al. (2010) claimed that "co-teaching is being initiated primarily for compliance with NCLB and less for quality instruction" (p. 651). If multiple adults are working together to adhere to educational policy, I recommend a modification to policy language to stress that having multiple adults working together should result in changes in one's teaching practice and improved instruction. As Sweigart and Landrum (2015) explained, having more adults in a classroom together will not automatically result in changes to practice or improved instruction for students. However, if schools are going to invest in having multiple educators work together in the same setting to comply with educational policy, these adults' skills and knowledge should be utilized to best support students.

With a change in policy language to focus on improved teaching practices, comes the need for teacher supports to work with other adults. Just as PSTs should be prepared to work with others within the same classroom, in-service teachers need supports as well. This should include opportunities for on-going professional development for educators (e.g., partnerships between a general educator and education specialist, general educator and teaching assistant, two general educators with different areas of content expertise) working with other adults. Professional development could include learning about collaborative practices and best approaches to co-teaching, as well as opportunities for the adults to apply their knowledge from the professional development to their shared classroom context. Supporting teachers as they work with other adults can, in turn, aid them in better supporting the learning needs of their students, thus meeting the goal of adults working together in shared classroom settings.

Underrepresentation within Gifted Education

The catalyst for this research study was the on-going issue of underrepresentation of certain populations in gifted education. Therefore, it is essential to discuss implications related to the issue of underrepresentation. To begin, I recommend a push-in approach to gifted education with multiple adults (i.e., general educator and gifted educator) working together in the classroom. When a gifted educator pushes into a general education classroom, they are able to provide instruction to and work with all students within the class to foster gifted potential, as opposed to working with a select, smaller group of students. This is a start toward addressing the larger issue, since all students are able to participate in gifted education lessons/curriculum and receive instruction from a gifted teacher. However, if the general education teacher is not involved in instruction, whether they are physically present or not, they may miss opportunities to identify students' gifted potential that might not be evident when implementing a general education curriculum. This suggests that in addition to utilizing a push-in approach to gifted education, general and gifted educators must work together during this time to support the needs of all students, including those students from historically underrepresented populations in gifted education.

This idea is supported by the work of Henley and colleagues (2010) who identified the need for inclusive practices so there is alignment between general and gifted education curriculum. If a gifted teacher is leading instruction, the general educator could participate by actively supporting instruction or engaging in purposeful observation while collecting student data. By having a gifted teacher and general education teacher work together during gifted lessons with all students, they can address challenges

associated with implementing rigorous curriculum (e.g., expertise in content and pedagogy, collecting formative assessment to inform instruction) while also working with all students to foster gifted potential. Furthermore, this presents an area for future research regarding what is happening in classrooms where a push-in approach to instruction is already being utilized. In conducting such research, this would be an opportunity to identify common practices occurring when utilizing a push-in approach to gifted instruction, including curriculum implementation, data collection, and adult actions and interactions. From this work, best practices could then be identified when a gifted and general educator work together during a push in approach to gifted instruction.

In addition to utilizing a push-in approach to gifted instruction to provide all students with access to such instructional experiences, students should also be exposed to rigorous curriculum as part of their general education experiences. Tomlinson (1999) indicated that all students should participate in respectful (i.e., meaningful) work as part of instruction. As such, all students should be exposed to rigorous, academically-challenging curriculum, that can then be differentiated based on their varied learning needs. This suggests a need for the adoption and utilization of rigorous curriculum in general education settings that incorporates the characteristics of academically-challenging curriculum previously described. Not only does this have the potential to enhance learning for all students, the implementation of rigorous curriculum in general education settings can also foster gifted and talented potential of students who might traditionally be overlooked in the gifted nomination and identification processes.

Considering research implications allows for connections to be made to practice, which can ultimately lead to improvements in education. The previously described

implications are varied and would require collaboration, communication, and commitment to supporting pre- and in-service teachers, university-school partnerships, and educational policy related to multiple adults working together in the same classroom. However, by addressing implications for curriculum design and implementation, PST preparation, co-teaching and multiple adults working together, and underrepresented populations within gifted education, this has the potential to lead to positive educational change aimed at supporting the needs of all students.

Limitations

As with all research studies, this Capstone study had several limitations that must be acknowledged. These limitations are discussed in the remainder of this section.

The first limitation is that the data sources (i.e., observations, interviews, and lesson plan/curriculum books) described in Chapter 3 were archival in nature, meaning the data were collected prior to the proposal of this study. While this means I did not get feedback on my data collection protocols from the members of my Capstone committee, I did utilize the observation and Exit interview protocols other members of Project Kaleidoscope used to collect data during the 2018 SI at the different treatment sites. Furthermore, I received feedback on the multiple adults interview protocol from the PI of the larger research study and revised the protocol according to this feedback. Another study limitation related to data collection was the amount of time spent in the field. In describing ways to enhance the trustworthiness of research findings, Rossman and Rallis (2017) cited extended time in the field or "data [that] are gathered over time" (p. 53). Due to the structure of the SI, data were gathered over the course of two weeks during eight different observations. While this may not be considered an extended amount of time,

these observations did occur every day of the SI, capturing daily instruction and totaling over 25 hours of observational data.

It must also be noted that the student to teacher ratio over the course of the SI was smaller than that one is likely to find in a traditional classroom setting, even with multiple adults present. Specifically, 11 students signed up to attend Camp Kaleidoscope at Willow Elementary School, although this number varied slightly due to some student absence. Over the eight-day SI there were two to four adults present each day, excluding my own presence as a member of the research team. This is an important consideration regarding transferability of this study to other contexts involving multiple adults in shared classroom settings outside of the Project Kaleidoscope system. An additional limitation is that this study did not contain the full perspectives of secondary adults (i.e., parent volunteers and student-teaching assistant) involved in the intersession since formal interviews were not conducted with those ancillary participants.

Even in light of said limitations, the recommendations previously described align to research findings from this study as depicted in Table 5.1. This suggests that members of the Project Kaleidoscope research team should consider these recommendations as they revise the 2019 curriculum, plan the SI teacher training, and prepare for another iteration of Camp Kaleidoscope to support students in the gifted and talented development process.

Reflection

While this study was focused on better understanding and examining the roles of multiple adults within the context of Camp Kaleidoscope, this was prompted by inequities regarding the historical underrepresentation of certain populations in gifted

education (Ford, 1998; Moon et al., 2015). Through this Capstone study, I have been able to align my research and educational interests in a way that is methodologically rigorous, as well as practical. As an educator, using research to support practice is embedded within my teaching philosophy. This Capstone experience has been an opportunity for me to delve into research that is meaningful to me and offer practical recommendations that can be implemented to work toward making educational improvements. While these improvements may be minor in nature, I believe all teachers share the desire for positive educational change, regardless the size. I look forward to continuing to marry research and practice in my future academic endeavors.

Chapter Summary

In this chapter, I considered the macro problem of practice regarding multiple adults based on study findings. Then, I presented recommendations to Project Kaleidoscope based on research findings from examining the actions and interactions of multiple adults involved within Camp Kaleidoscope. These recommendations included additional curriculum supports for the various adults involved in the SI, clear guidelines and role expectations for all SI adults, and training for teachers on working with other adults. I then described specific implications this study could have on a larger scale related to multiple adults working together in shared classroom settings. Additionally, I addressed limitations of this research study. Finally, I presented a reflection of this Capstone experience. When multiple adults come together in shared classroom settings, they have the potential to support the varying needs of all learners and positively influence students' learning experiences. Through the use of rigorous curriculum implemented by multiple adults, students with gifted potential, including those from

populations that are traditionally underrepresented in gifted education, can engage in rich

educational experiences in which their gifted and talented potential is fostered.

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Appendix A: Camp Kaleidoscope Curriculum Overview and At-a-Glance

Camp Kaleidoscope: Curriculum Overview

Each day of this curriculum contains the same basic components:
- Background
- Learning Objectives
- Opening Circle
- Read Aloud
- Whole Group Activity
- Snack
- Centers
- Closing Circle
- Anchor Charts

Following are descriptions of each of these components (excluding Snack);

Background: The background section of the daily lessons provides teachers with a broad overview of the focus of the day. For some lessons the background section will have teacher notes delineated in bold print. The teacher notes are meant to bring attention to anything that might require more intensive set up time. For an example, see the teacher note on Day Four, which reminds teachers that they will want to set up the obstacle course for the whole group activity. In addition, the background section lists the relevant anchor charts (described below), i.e., those anchor charts that will be highlighted on that day.

Learning Objectives: Each day has several learning objectives: understandings, essential questions, and what we would expect children to know and be able to do by the end of the day. The understandings are the big ideas that we want our children to come away with, and the essential questions are there to provoke thought and discussion. The "K's" refer to what we want children to know by the end of the lesson while the "S's" refer to what we want children to do or the skills we want children to master.

Opening Circle: The opening circle serves two purposes: to help children and teachers connect with one another and to help the children connect to content in meaningful and engaging ways. Children and teachers will be encouraged to congregate in a circle each morning so that all children and teachers can make eye contact and listen to one another. The day will typically begin with a greeting to provide the children with a sense of belonging.

Read Aloud: There will be a daily read aloud each day. Each read aloud book was specifically chosen to help children make sense of the topic or concept of the day. For example, the book *The Adventures of Beekle: The Unimaginary Friend*, was chosen because we wanted children to see a variety of settings and realize that a setting can be real or imaginary. Further information about the purpose of each read aloud is embedded in daily lesson plans.

Whole Group Activity: Each day there will be a whole group activity. The purpose of the whole group activities is to allow the children an opportunity to grapple with the big ideas for the day—and, often, on their own, with partners, or small groups within the whole group setting. Moreover, these activities are designed to allow children to have a chance to apply their knowledge in a whole group setting before doing so in a small group, or center. Some whole group activities involve creation, while others are designed to allow children to engage in movement (e.g., the obstacle course). These activities are designed to allow children to have a chance to apply their knowledge in a whole group setting before doing so in a small group, or center.

Centers: Each day, there will be two centers each day for children to rotate between. One center will be a **Storytelling Center**, and the second center will be different each day. The **Storytelling Center** provides children with an opportunity to capture student voices through storytelling in a variety of modalities: acting, writing, drawing, and recording. Children will be able to choose from a variety of media to tell their stories. Additionally, each child will have a folder to hold his/her work so that he/she has a place to store things from day to day. To assist students in creating stories, there will be prompts that correspond to the concept of the day. Students will be encouraged to share their stories via an audio recording. Teachers should attempt to record each child each day, as long as students are ready and willing to record. Teachers can and should build in time for students to share what they are doing with each other. At the end of camp children will have a collection of stories, and hopefully a digital anthology that they can share with friends and family. In addition, the **Storytelling Center** can be used as an optional place children can go if they finish other activities early.

The second center, which—for ease of reference—we will refer to as the **Other Center**, is specifically tied to the topic and concepts of the day and is designed to provide children with an opportunity to further apply their knowledge and understanding of the learning objectives.

In addition to the two foregoing centers, there will also be an **Optional Reading Center**. The **Optional Reading Center** is a place for children to visit if they finish early or if an activity is not particularly appealing to them. The materials in the center will be introduced to the children on Day 1 during the **Other Center** for that day.

Closing Circle: The purpose of the closing circle is to wrap up the day and end on a positive note. This time is designed for teachers to help children reflect on their learning for the day and also to continue to build classroom community.

Anchor Charts: This component of the curriculum is embedded throughout each lesson (and in nearly activity within each lesson). The anchor charts serve several purposes: First, the anchor charts are a way to capture the children's thinking and make learning visible. They become living documents that children and teachers can (and should) add to throughout the day. The charts will help students develop a deeper understanding the elements of a story, as well as various habits of mind. We also want children to come to understand that their voices matter. Therefore, one way to reinforce this concept is by having the children add their own ideas to the anchor charts, whether that be in writing or by drawing a corresponding picture. Additionally, if a teacher records a child's contribution, he or she should put the child's name next to that contribution as a way of honoring his or her ideas and voice.

On the next pages you will find a day-by-day overview of Camp Kaleidoscope

AT-A-GLANCE: Week 1

	DAY 1	DAY 2	DAY 3	DAY 4
Universal U & EQ	**U:** A good story is emotionally compelling and satisfying. Good stories make us feel something. **EQ:** What makes a good story?			
Topic	Camp Intro & Community Building My Voice Matters	Creating attachment to Character	The Emotional Power of Setting	Dramatic Events: Challenges, Obstacles, and Problems
U(s)	**U1:** There is only one you, so your story is unique. **U2:** Storytelling can free your voice. **U3:** Sharing stories gives you a window into someone else's world.	**U1:** Compelling characters are multi-dimensional. **U2:** Compelling characters' traits are dynamic. **U3:** Listening makes me a better friend.	**U1:** Characteristics of setting evoke emotion. **U2:** Different perspectives open our minds.	**U1:** Challenges, obstacles, and/or problems create drama. **U2:** Every individual has a unique perspective; therefore, everyone can make a valuable contribution.
EQ(s)	**EQ1:** Why does my voice matter? **EQ2:** Why do we share stories?	**EQ1:** What makes a character compelling? **EQ2:** Why do we listen?	**EQ1:** Why do different settings evoke different feelings? **EQ2:** Why do other people's ideas matter?	**EQ1:** What makes for a dramatic event? **EQ2:** How can I work well with others?
Opening Circle	The Name Game Eyeball Puppet stories	This, That or Both?	Greeting Act It Out Emoji Graffiti Activity	"Story" Walk
Whole Group	Who Am I, Inside and Out?: Inside/Outside Traits with Butcher Paper	Puppet-Making	Setting Design Challenge (emoji-inspired)	Obstacle Course
Read Aloud	Marisol McDonald Doesn't Match	The Thing Lou Couldn't Do	The Adventures of Beekle: An Unimaginary Friend	Knuffle Bunny
Centers	What to do in the Optional Reading Center	Improv	Storytelling Quickfire Challenge (same setting, different story)	Play Obstacles
	Storytelling Center: Introduction to Storytelling	Storytelling Center: Tell about a time when I was … (a trait)	Storytelling Center: Telling a story based on setting	Storytelling Center: An Obstacle I Have Faced
Closing Circle	A Warm Wind Blows	Exploring Puppets' Character Traits	Discussing others' contributions to a project	Story Walk Revisit

AT-A-GLANCE: Week 2

	DAY 5	DAY 6	DAY 7	DAY 8
Universal U & EQ	**U:** A good story is emotionally compelling and satisfying. Good stories make us feel something. **EQ:** What makes a good story?			
Topic	Dramatic Events: The "Uh Oh" Moment	Resolution, Happily Ever After, and The End	Collaborative Story-Creating	Sharing Our Stories
Daily U(s)	**U1:** Good stories need a dramatic event (i.e., an "uh oh" moment). **U2:** Every individual has a unique perspective; therefore, everyone can make a valuable contribution.	**U1:** Resolutions give us closure and/or comfort. **U2:** We can learn from other people's stories.	**U1:** Sharing stories gives you a window into someone else's world. [Purposeful revisiting of Day 1]	**U1:** Nobody can tell your story like you. [Purposeful revisiting of Day 2]
Daily EQ(s)	**EQ1:** How does a series of events become a good story? **EQ2:** How can I work well with others?	**EQ1:** Why are resolutions important? **EQ2:** How can other people's stories be about us?	**EQ1:** Why do we share stories? [Purposeful revisiting of Day 1]	**EQ1:** Why does my voice matter? [Purposeful revisiting of Day 2]
Opening Circle	Minefield	Cliffhanger Activity (Three Little Pigs video) Exploring Story Endings	Hula Hoop Pass	Making a Campfire
Read Aloud	Knuffle Bunny Too	Ten Rules of Being a Superhero	Mr. Wuffles	Individual Story Sharing
Whole Group	Plotting Knuffle Bunny and ending: the "uh oh" moment Story Card Stories	Superhero Design Challenge	Collaborative Story Creation Challenge	Collaborative Story Sharing
Centers	Play Obstacles (with a twist)	Same Story, Different Ending	Being a Book Critic	Picking a Book
	Storytelling Center: Overcoming Obstacles	Storytelling Center: My Superpower and How I Used it to Save the Day	Storytelling Center: Anthology Introduction	Storytelling Center: Anthology Conclusion
Closing Circle	Storytelling Center Share	Save the Day Share	Let's Talk Good Books! Zoom	One Word Whip Activity to close camp

If you are interested in serving as an assistant, please indicate any of the days that you would be available. **Again, no experience is necessary!**

Please note that we only have space for the children we have invited to this program; unfortunately, we cannot allow siblings and/or friends to also attend—even on dates that you have agreed to work with us.

You can either place a check mark next to each date you are available; if you prefer certain days over others, please feel free to number them in the order of your preference. We do our best to accommodate your first choice. Please note that positions will be filled on a first come, first serve basis.

Day, Date	Available √	Preference (1, 2, 3)
Monday, July 16	√	2
Tuesday, July 17		
Wednesday, July 18		
Thursday, July 19	√	1
Monday, July 23	√	
Tuesday, July 24		
Wednesday, July 25	√	3
Thursday, July 26	√	

Please fill out this form:

Your Name: _____

Child's Name: _____

Relationship to Child: _____

Day, Date	Available √	Preference (1, 2, 3)
Monday, July 16		
Tuesday, July 17		
Wednesday, July 18		
Thursday, July 19		
Monday, July 23		
Tuesday, July 24		
Wednesday, July 25		
Thursday, July 26		

☐ No, thank you. I will not be able to be a parent assistant.

Appendix C: Camp Kaleidoscope Observation Template

Summary Session Observation

Teachers: _____
Assistants: _____
Site/School: _____
Date: _____
Topic: _____
Number of Children: _____
Parent Volunteer: _____

**Please note: Photos can be accessed by clicking the following Box link:

Prior to Observation:

Environment:

Student List:

**Please note: For more detailed information for students, the following Box link is (School name) Summer Session Student Information:

Opening Circle:

Read Aloud:

Whole Group:

Snack Time:

Centers:

Closing Circle:

Closing:

Observer Reflection:

Appendix D: Camp Kaleidoscope Observation Protocol

DO NOT TAKE PICTURES OF CHILDREN

Prior to Observations
- Prior to observations, read (copy, if needed) lesson plan for annotating significant "moments": Consider deviations for possible follow-up, conversations and engagement (or lack thereof), etc. [See **Materials** and **Instruction** below.]
- Attach student list.
- Discussion with teacher regarding any anticipated changes.

Environment
- Note whether teacher is in her own classroom or someone else's [may impact extent to which teacher posts items on the wall or makes other decisions]
- Orient yourself to the classroom by describing the locations of stations, materials, student desks, etc. Look for examples of literacy embedded within the classroom. You may wish to draw a map, but all of this is only necessary one time. [If you are a subsequent observer, get map from prior observer and supplement as appropriate]
- Take daily pictures of Anchor charts to see the evolution [beginning and end of day]
- What things get written on the board?
- What things get hung on the wall?

Materials: Make note of deviations

Instruction
- Make note of deviations
- Notable interactions (e.g., student interactions and comments; student questions/teacher responses; unexpected moments, good or bad; student responses to activities, good or bad)
- Implementation of aspects from modules

Assessment and Data
- How are teachers using data, both formal and informal (e.g., child work, responses, behavioral cues, etc.) to inform their instruction?
- Do teachers appear to be assessing (formally or informally) children and, if so, how?
- What type of feedback are teachers providing to children?
- Photograph data collection to the extent possible (clipboard use, etc.)

Talent Development
- The extent to which teachers facilitate talent (e.g., not being "sidetracked" by behavioral issues and instead positively redirects, allowing children to explore ideas)
- Do the teachers appear to recognize that students have different language backgrounds?
- How is language instruction differentiated by the teachers? How do they make these decisions? [Differentiation does not need to be built into lesson, but can happen in the moment.]
- Are children interacting with texts (whether they can read them or not)?
- Are teachers allowing for children to go beyond the original scope of activities?
- Are open-ended questions being asked, and if so does the teacher allow for a follow up question that "pushes" student understanding?

Read-Alouds
- Open-ended questions (as opposed to yes/no questions)
- Follow-up questions
- Think time
- Honoring children's unique/creative responses
- Introduction of new vocabulary (and how?)
- Who (and how) are children being selected for responses and/or being provided opportunities respond? Consider opportunities for children to
- Manner in which text is used (e.g., read, shown, summarized, etc.)
- Note substantive versus tangential conversations regarding the texts

Student Work
- Photographs of creations (writing, drawing, etc.)
- Capturing data from storytelling center via photographs and/or field notes

Observer Reflection: Voice memos permissible

Time Stamps: Add time stamps as needed – especially if the teachers make significant changes to the suggested timing in the curriculum.

Appendix E: Camp Kaleidoscope Multiple Adults Interview Protocol

*Note: This will be in addition to the regular Camp Kaleidoscope interview and will take place with one teacher at a time.

Introduction: Since this is in addition to and before the Camp Kaleidoscope interview with both teachers, I will briefly review the following.

- o Participants will be reminded that participation is voluntary. Further, all data obtained from the interview will remain confidential and their identity will not be made public at any point.

- o Tape recording: The researcher will ask permission to audio record the interview. If permission is granted, the interview will be recorded and after they will be transcribed and the audio recording will be deleted.

- o Content ownership: Once the interview is transcribed, I will delete the audio recording and upload the transcription to a secure UVA Box account that only members of the research team will have access to for the remainder of the study.

- o Overview and purpose: At the start of the interview, I will explain to the participants that the purpose of this interview is to explore one aspect of camp in further detail—multiple adults in the classroom. Therefore, I am wanting them to discuss their thoughts and ideas about having multiple adults in the classroom (i. e., two teachers, parent volunteers, and a high school helper) throughout camp.

Body of the Interview:
- o Topic 1: How multiple adults interacted in the classroom
    - o What were the types of tasks and responsibilities that various adults engaged in throughout the week? (Could you please give me an example?)
        - o Other teacher
            - ▪ How did you determine various responsibilities such as who would lead a task/activity?
            - ▪ How did you prepare for lessons?
        - o Parent volunteers
        - o High school helper
    - o What direction, if any, did you give to other adults in the classroom for support? (Could you please give me an example?)
        - o Other teacher
        - o Parent volunteers
        - o High school helper
    - o Tell me a little about the differences between the multiple adults who were in the classroom throughout Camp Kaleidoscope and how their role (i.e., other teacher, parent volunteer, high school helper) impacted the way in which they were utilized (i.e., the tasks and responsibilities in which they engaged)

- - Could you give me an example?

- Topic 2: Beliefs on multiple adults being present in the classroom
  - Tell me about the benefits, if any, of having another adult in the classroom for the following roles:
    - Two teachers
    - Parent Volunteers
    - High school helper
  - Tell me about the challenges, if any, of having another adult in the classroom for the following roles:
    - Two teachers
    - Parent Volunteers
    - High school helper
  - Are there any perceived challenges you could imagine coming up if two teachers had different styles of teaching, different personalities with kids, etc.?
    - Could you please elaborate…?
  - You and "Other teacher," have experience being part of the same grade level team. How, if at all, did this impact your experience of teaching together during Camp Kaleidoscope?
    - Planning?
    - Teaching?
    - Data collection?
  - Based on the type of curriculum you implemented, can you tell me a little about the usefulness of having two teachers?
    - Option 1: How, it at all, might this transfer to your regular classroom with a GRT and a talent development focus?
    - Option 2: How might this transfer to your future work as an ITRT with regular classroom teachers?
  - In what ways, if any, do you think your experience as a Camp Kaleidoscope teacher might have been different had there not been multiple adults in the classroom?
    - Could you give me an example?
    - What aspects of the curriculum, if any, would have been most impacted by not having multiple adults in the room? Why? How?
    - How might you have approached instruction differently had you been the only adult to implement this curriculum?
    - How would your experience have been different if there were two teachers but no parent volunteers? No high school helper?
  - In what ways could implementing multiple adults in a classroom be a way to better utilize parent volunteers in the classroom?
  - What do you believe are necessary considerations for a school to make before implementing multiple adults in a classroom?
    - Why?
    - How, if at all, would the roles of those adults impact the considerations that need to be made?

- o Topic 3: Background related to teaching and teaching with multiple adults
    - o Tell me about your teaching background generally.
        - o Years teaching, experience
        - o Education
        - o Could you elaborate on…
    - o Tell me about your background and experiences teaching with multiple adults (e.g., parent volunteers, high school helpers, SPED teacher, GRT, literacy specialist, etc.).
        - o Could you elaborate on…
        - o Please tell me more about….
    - o How, if at all, was your experience of working with multiple adults during Camp Kaleidoscope **similar to** your experience of working with multiple adults during the regular academic year?
    - o How, if at all, was your experience of working with multiple adults during Camp Kaleidoscope **different from** your experience of working with multiple adults during the regular academic year?

Summary and Closure:

- o Thanks: I will thank the participants for their time and for discussing their thoughts regarding multiple adults in the classroom with me.

- o Keeping the Door Open: I will remind the participants they may contact me if they have any further comments or if they have any questions or concerns they would like to discuss.

Appendix F: Camp Kaleidoscope General Interview Protocol

Summer Session (2018) Interview

Thanks for teaching these past two weeks. It really was great to be able to see the kids in action and to provide them with opportunities that they might not otherwise have access to. Thanks also for your willingness to talk with me today. I've got some questions that focus on 3 big areas. I'll ask you some questions about the curriculum and camp generally, the students, and the data you collected. There's no right or wrong answer and you both should feel free to pipe in to respond. Do you mind if I record our conversation? It's easier so that I don't have to try to write down what you say. We'll have the recording transcribed and then it will be destroyed.

NOTE: Interviewer: If they don't want you to record, then you will need to scribe the best you can how they respond.

Remember you will need to listen to hear the data…this is where follow-up questions come from…building off their responses to your question.

Make sure they have access to the data that they collected on each student.

The first topic is on the Curriculum and the Camp itself:

1. What were your overall impressions of the two-week camp experience for you? For the kids?

2. What lessons/activities did you think were the best? Why?

3. What lessons/activities didn't work? Why?

4. As you know, the interactive read alouds were a central part of the lesson each day. Would you describe how the read-alouds went over the two weeks? (For example, how did the students engage with the story? Make personal connections? Make inferences about character, setting, dramatic events? How did it help the students to grapple with the Understandings and Essential Questions for the day?)

   What worked well or what didn't work? Why?

5. The anchor charts addressed key terms each day and tied all of the days together. Would you describe how the anchor charts were used over the two weeks? (For example, how did the students engage with the anchor charts? How did it help the students to grapple with the Understandings and Essential Questions for the day?

   What worked well or what didn't work? Why?

6. The storytelling center was a new component this year and occurred daily, giving it a prominent place in this curriculum. Describe your approach to implementing this center. (i.e., what technology did you use, how did you use it? How did you introduce the center every day? How did you work with the students during the center?)

   How did the students respond to this center? In what ways did this center help to allow for or hinder students' expression of their knowledge and ideas about stories?

   What worked well or what didn't work? Why?

I want to move to a couple questions about the kids.

As you know, the camp lessons were designed to foster student literacy through talent development activities that didn't feel like typical school. This allowed students to show off their TABs in ways that perhaps doesn't typically happen in school. The kids that were invited were kids that had a discrepancy in their PALS scores and the DAP.

7. Overall, what did you notice about students in these two weeks? **(For example, in terms of their growth and change over the two weeks or as compared to the previous school year, in terms of their TABs, or in terms of their interaction with the curriculum and/or each other and the teachers. Encourage the teachers to share about all of the students. They are welcome to refer to any notes or data they have.)**

8. Were there any particular students that stood out for you? Who? Why? **(You may have a couple students that you are particularly interested in and if they don't name them you can ask specifically about them.)**

9. Would you refer any of the students from this past two weeks to receive additional support from the GRT? Do you think that with continued support the student might be nominated for screening for gifted services?

       If yes, who and why?

I'd like to ask you about the data that you collected over the two weeks. I noticed that you collected data by <<<FILL IN THE BLANK (clipboard, notebook with a tab for each student>>>.

10. Is this something that you do during the regular school year?
       If yes, how often? How do you use the data?

11. In general, what are the types of things that you noted about students?

Final question

12. What did you learn from teaching the summer session? Is there anything you plan to take from this experience and implement during the school year? If so, what? Why?

Appendix G: Round 1 A priori Code List

Code	Definition
Lesson/Curriculum Sections	
Embedded Curriculum Support	Use this code when there is background information embedded within the curriculum to support implementation of said curriculum/lesson. Also, use this code when tips, tricks, suggestions, and/or explanations to teachers are provided to support curriculum implementation.
Opening Circle**	Use this code during Opening Circle. Code the entire block of observer field notes related to the Opening Circle. This is the opening activity in each lesson. During this time, children and teachers will be encouraged to congregate in a circle each morning so that all children and teachers can make eye contact and listen to one another. The day will typically begin with a greeting to provide the children with a sense of belonging.
Read Aloud**	Use this code whenever teachers or another adult are engaging in reading a text to students. This is not limited to read-alouds occurring during the Read Aloud time. Read aloud time is the section of the lesson in which a/the read aloud book was specifically chosen to help children make sense of the topic or concept of the day. For example, the book *The Adventures of Beekle: The Unimaginary Friend*, was chosen because curriculum developers wanted children to see a variety of settings and realize that a setting can be real or imaginary. However, use this code during any type of instructional grouping, such as in whole group, small group, or one-on-one. Code the entire block of observer field notes related to read-alouds.
Whole-Group Activity**	Use this code during Whole Group Activities. Code the entire block of observer fields notes related to Whole Group Activities. *Please note that this is the Whole-Group Activity as designated in the lesson plan book, not just when students are working together as a whole group (For instance: you would NOT use this code during Opening Circle).

	Ex: Puppet-making activity from Day 2 of Camp Kaleidoscope. Ex: Obstacle course on Day 4 of Camp Kaleidoscope. There is a whole group activity for each lesson. The purpose of the whole group activities is to allow the children an opportunity to grapple with the big ideas for the day—and, often, on their own, with partners, or small groups within the whole group setting. Moreover, these activities are designed to allow children to have a chance to apply their knowledge in a whole group setting before doing so in a small group, or center.
Centers**	Use this code whenever students are in Centers. Code the entire block of observer fields notes related to Centers. There are two centers that students will rotate between each day of Camp Kaleidoscope. The first will be a Storytelling Center, and the second will be different each day. The second center, which—for ease of reference—we will refer to as the Other Center, is specifically tied to the topic and concepts of the day and is designed to provide children with an opportunity to further apply their knowledge and understanding of the learning objectives. In addition to the two foregoing centers, there will also be an Optional Reading Center, which students can engage in as often or as little as they like. The Optional Reading Center is a place for children to visit if they finish early or if an activity is not particularly appealing to them. This center is different from the prior two in that students choose to go here, and there is not a set daily activity written into the curriculum.
Closing Circle**	Use this code during Closing Circle. Code the entire block of observer field notes related to Closing Circle. The purpose of the closing circle is to wrap up the day and end on a positive note. This time is designed for teachers to help children reflect on their learning for the day and also to continue to build classroom community.
Multiple Adults	
Teacher—Ms. Little	Use this code anytime the observer specifically indicates that Ms. Little is participating as part of camp. If/when Ms. Little is referenced as involved with an activity, code the activity in

	its entirety. Use this code to capture the actions of Ms. Little throughout Camp Kaleidoscope. Ex.: Ms. Little is working with students at the Storytelling Center. She explains to them the directions for the station that day. While some children begin drawing or writing stories, Ms. Little works with students one at a time so they can audio record their latest story.
Teacher—Ms. Sykes	Use this code anytime the observer specifically indicates that Ms. Sykes is participating as part of camp. If/when Ms. Sykes is referenced as involved with an activity, code the activity in its entirety. Use this code to capture the actions of Ms. Sykes throughout Camp Kaleidoscope. Ex.: Ms. Sykes is sitting on the carpet during the read-aloud, which is being led by the other teacher. Ms. Sykes is encouraging students to engage with one another during turn and talks and draws the other teacher's attention to students who have not shared their ideas with the whole group yet, so that the other teacher can call on these students.
Parent Volunteer**	Use this code anytime the observer references a parent volunteer as part of camp. If a parent is referenced as helping in an activity, code the activity in its entirety. Use this code to capture the actions of the parent volunteer(s). Ex.: If a parent volunteer is working with a small group during the Setting Design Challenge, use this code for all lines of the observation that are specific to this group when that parent volunteer is with them. Ex.: If the observer explicitly states a parent volunteer is present in the classroom but not participating (e.g., talking on their phone, sitting apart from the group) code the sentence(s) where they are referenced, but not the entire activity since they are not participating.
Student-teaching assistant**	Use this code anytime the observer references the student-teaching assistant (i.e., high school helper and additional teacher support) as part of camp. If the student-teaching assistant is referenced as helping in an activity, code the activity in its entirety. Use this code to capture the actions of the student-teaching assistant.

	Ex.: If the student-teaching assistant is helping to organize or set-up an activity (whether this is during official camp time or this happens prior to or after the lesson).
Researcher	Use this code anytime the observer engaged in a conversation with a student or adult or contributed to the lesson/curriculum in some way and described this exchange. This could be a side conversation with a teacher or parent or a summary of a conversation the researcher engaged in included as part of the observation reflection. *Note: Do not code the entire reflection with this code simply because it is from the perspective of the observer. Only use this code in the reflection if the observer/researcher is referencing something they (the observer/researcher) did as part of the lesson or an interaction with a student or other adult.
Any other adults	Use this code anytime the observer references another adult (e.g., school principal, another teacher) as part of camp.
Actions of Multiple Adults **(can apply for any of the multiple adults—this could be 1 adult or more)**	
Instructional	
Leading instruction (whole-group)	Use this code when one or more adults is/are leading instruction by implementing the curriculum (even if it is a curriculum deviation) with the entire group of students. Ex.: One teacher is leading the morning circle. Ex.: Both teachers are facilitating the whole group activity.
Supporting instruction	Use this code when one or more adults is supporting instruction while another adult is leading instruction. Ex.: The supporting or assisting teacher might be working with one student in the group or engaging in brief side conversations with students (should be instructional in nature, such as sounding out a word the student does not know how to spell). Non-ex.: Correcting a student's behavior during whole group instruction.
Working with a center or small group of students	Use this code when one or more adults is working with a small group of students or with students in a center to support instruction. This should be instructionally focused (e.g., asking open-ended questions, helping students create

	something, recording students, providing direction on how to complete a task/activity).
Collecting student data	Use this code when any adult is collecting student data. Ex.: When employing the one teach/one assist approach, the observing teacher is recording student data based on responses shared during a read-aloud. Ex.: During centers, the student-teaching assistant or parent volunteer records data based on conversations with students.
Data**	Use this code when a teacher (or other adult) makes notes (e.g., in a notebook) about student(s) or references data about a student. These notes could be about responses that students made, teachers' perceptions of student(s) responses, teacher descriptions of student characteristics (e.g., quiet, shy). Ex.: An adult is recording student data on clipboards. Ex.: An adult is recording information on a TABs form.
Feedback**	The teacher or other adult gives feedback to the student based on informal data. This could be praise feedback, effort feedback, ability feedback, and/or negative feedback. Ex: PRAISE feedback: excellent, good job, that's a great job; EFFORT feedback: You're working so hard on your reading; ABILITY feedback: you're really smart; NEGATIVE feedback: your work is really messy.
"Important in-the-moment scaffolds"	Use this code when an adult provides additional support to a student or students that was not previously discussed or included in the planning process. Ex.: Ms. Sykes is describing the center activity for the day, and realizing that Louisa was not present the day before and is therefore unprepared for the activity, pairs this student with a buddy to review what was learned/discussed the previous day.
Non-instructional	
Management*	Code for any of the skills and techniques that adults used to keep students organized, orderly, focused, attentive, and on-task. Management could also refer to the skills and techniques used to organize resources and other camp materials. Also, use this code when field notes indicate an absence or lack of management regarding any of the above.

Behavior Management	Use this code when an adult engages in a form of behavior management. Ex.: Redirecting a student who is demonstrating off-task behavior. Ex.: Telling the class they need to (re)focus, pay attention, "eyes on me," etc. Ex.: Engaging students in conversation to address a disagreement between peers. Encouraging students to take turns, listen to their peers, etc. Ex: Having students participate in a transition activity, such as singing a song, stretching, yoga poses, etc.
Clerical	Use this code when an adult engages in/performs a clerical task. Ex.: One teacher takes the roll and calls the home of an absent student. Ex.: A parent volunteer stores students' work in their folders.
Other (Non-Instructional)	Use this code when an adult engages in non-instructional task that does not fit the definition of "management," "behavior management," or "clerical." Add a memo to explain what the adult is actually doing.
Interactions between and among Multiple Adults (can occur between any of the multiple adults with the exception of the Teacher-Teacher Interactions code—see below)	
Teacher-Teacher Interactions**	Use this code when teachers (i.e., Ms. Little and Ms. Sykes) are interacting with one another. This might include conversations between the teachers before, during, or after the daily lesson. Specific examples might include discussion of how the teachers would share classroom responsibility (who would lead what activity, division of work, etc.), support one another during instruction, or possible tensions between the teachers. *Please note, this is not the same as co-teaching. Use this code to capture the interactions of the two teachers.
Collaboration/Planning	Use this code when multiple adults are engaged in collaboration or planning together. This could come in the form of discussing upcoming plans for lesson implementation or jointly setting up the classroom space for learning activities.

	It is important to note that this code should be used when multiple adults are collaborating, and, as such, are acting as equal partnerships in regard to the task in which they are engaged. This could occur between any pairing of multiple adults.
Directive/Instructions	Use this code when one adult gives directions or instructions to another adult This could also be in the form of a question. Ex.: "Could you help to set up Center A?"
Questions	Use this code when one adult asks a question related to the implementation of Camp Kaleidoscope. Ex.: "How would you like to break students into groups for centers?" Ex.: "What should I say if the student says they have nothing to write about?" Ex.: One teacher asks the other about a section of the lesson—"Do you know when we are supposed to refer to the anchor charts?"
Offer of assistance	Use this code when one adult offers support to another adult. This could include asking another adult if they need assistance. Ex.: "Here, I can file those papers into folders for you." Ex.: "What would you like me to do? How can I help?" Ex.: A parent volunteer asks one of the teachers what they can do to help out during center time.
Expression of support or appreciation	Use this code when one of the multiple adults expresses support for another adult or appreciation for another adult. This could be through what they say or inferred through their actions. Ex.: "I don't know what we would do without Jada!"
Expression of challenge or frustration	Use this code when one of the multiple adults expresses challenge regarding working with another adult or frustration toward another adult. This could be through what they say or inferred through their actions. Ex.: "It felt like there were a lot of cooks in the kitchen today."

Co-teaching Approaches	
One teach/one observe	Use this code when one adult is leading instruction while another adult observes. This code should be used whether the observing adult is doing so purposefully (e.g., recording student data) or not.
One teach/one assist	Use this code when one adult is leading instruction and another adult is assisting to support the adult leading instruction. Ex.: The supporting or assisting teacher might be working with one student in the group or engaging in brief side conversations with students (whether instruction or non-instructional).
Station teaching	Use this code when students are in small groups and are rotating to different centers or stations. However, this does not mean that students are simply in small groups. This code should be used when there are two or more groups of students being instructed differently or engaging in different learning activities.
Parallel teaching	Use this code when students are divided evenly between multiple adults and are being taught the same content.
Alternative Teaching	Use this code when students are purposefully divided into two groups of differing sizes, with the small group intentionally clustered. This approach to teaching with multiple adults is intended to provide students in the small group with additional or different support. Ex.: Students were absent and need to be taught what they missed or complete the activity they missed. Ex.: Some students are involved in a special interest group.
Team Teaching	Use this code when multiple adults are working together to plan, deliver, and assess students. Ex.: The two teachers and Jada are all sitting at a table together, reviewing the lesson for the next day. Ms. Sykes poses a suggestion on how they can implement stations. The three multiple adults engage in conversation, deciding that Jada will support students in the reading center while the other adults each lead a separate station.

	Ex.: The two teachers are delivering joint instruction at the front of the class, both providing direction and comments to students, and building off of one another. Non ex.: Both teachers are teaching separate groups of students during centers.
Rigorous Curriculum	
Curriculum Deviation*	Use this code any time the observer indicates the curriculum is modified, supplemented, substituted, and/or omitted. Code all observer notes relevant to the deviation. If the coder notices any deviations not referenced by the observer, use this code and add a Memo in MAXQDA to draw attention to this deviation.
Curriculum Evaluation	Use this code when the curriculum is being evaluated (by any of the adults) or an evaluative statement (positive or negative) is made about the curriculum. For example, this may be a comment of professional judgment regarding curriculum implementation and why the curriculum should be modified, an explanation of why the individual intends to or did implement the curriculum in a particular way, reference to something that "worked" or "didn't work" when implementing the curriculum.
Characteristics of Rigorous Curriculum	
Focus on Enduring Understandings in Curriculum	Use this code when a reference is made to an enduring understanding (this could be a reference from one of the multiple adults or an observer comment about an enduring understanding, including a missed connection or opportunity). Also, use this code when Enduring Understandings are included within the lesson plan book. Enduring Understandings are deep understandings that allow students to apply and transfer knowledge to other settings.
Aligned Curriculum	Use this code when a reference to curriculum alignment is made (this could be a reference from one of the multiple adults or an observer comment about alignment or a lack of alignment). Also, use this code when there is alignment within the lesson plan book (this may be explicit or implicit). Alignment occurs when there is agreement between learning objectives, academic standards, learning activities, and assessments.

Differentiated Curriculum	Use this code when there are opportunities for differentiation in the curriculum or a reference to differentiation is made (this could be a reference from one of the multiple adults or an observer comment about opportunities, or a lack of, for differentiation). Use this code when opportunities for differentiation are presented within the lesson plan book. Also, use this code if an opportunity for differentiation was embedded within the lesson plan, but was not presented to students and memo this as a "lack of differentiation." Instruction can be differentiated based on students' interest, readiness, and/or learning profile.
Developmentally Appropriate Curriculum	Use this code when a reference to developmentally appropriate instruction is made (this could be a reference from one of the multiple adults or an observer comment about developmentally appropriate, or developmentally inappropriate, instruction). Also, use this code when references to developmental appropriateness is mentioned/addressed within the lesson plan book. Developmentally appropriate instruction refers to pacing or appropriate level of challenge.
Authentic Curriculum	Use this code when there are opportunities for authentic learning experiences in the curriculum or a reference to authenticity is made (this could be a reference from one of the multiple adults or an observer comment regarding authenticity). Authentic instruction mimics the work of an expert and involves students with real-world issues or challenges to solve.
Engaging Curriculum	Use this code when there is a reference (within the curriculum, from a multiple adult, or from the observer) regarding engagement and engaged students, or a lack of these things. Engaging instruction occurs when the curriculum or activities students are engaged in encourage connections between the

	student and what they are learning and/or personal student growth.
Curriculum Challenges	
Expertise	Use this code when a multiple adult demonstrates expertise or a lack of expertise in regard to curriculum content. Also, use this code within the lesson plan book when it is evident there is an expectation of expertise required to implement said curriculum. Use this code when expertise or a lack of expertise alters the implementation of the curriculum. Ex.: A teacher could modify a learning activity to adjust for student interest, capacity, or choice, demonstrating expertise in the content area and/or pedagogy.
Assessment	Use this code when assessment is referred to (by any of the multiple adults, observer, or in the lesson plan book) or when any assessment (including informal data collection) is taking place. Also, use this code if assessment data is being used to inform future instruction. Ex.: The teachers are discussing student groupings for centers and decide to put Tom in a group with Jerry because it was noted yesterday that Tom really engaged in conversation with Jerry and he typically does not express himself verbally often.
Time	Use this code when the concept of time is addressed (*Note: this does not include "time stamps" within observation notes). This could be referenced by any of the multiple adults, within the lesson plan book, or noted by the observer. This could be in regard to a lack of time, making adjustments to account for time, etc.
Conceptual and Theoretical Framework	
Project Kaleidoscope System	Within the boundaries of Project Kaleidoscope is a three-pronged intervention model which includes online PD modules, parent nights, and the SI. Use this code when there are references to the larger Project Kaleidoscope system and the intervention model prongs other than the SI (i.e., online PD modules, parent nights, teacher training). These references could be from a multiple adult, the observer, or stated within the curriculum.

Boundaries	Use this code when reference is made to something outside of the boundaries of the Project Kaleidoscope system (from a multiple adult, observer, or stated within the curriculum). The environment, or the area outside of the boundaries of this research project, includes legislation (e.g., NCLB and IDEA), as well as state and district policy (e.g., local gifted plan, gifted policies, staffing procedures). Therefore, the boundary for this framework are those things which exist or occur independently of Project Kaleidoscope.
Recommendations	Use this code when recommendations (explicit or implicit) are made by any of the multiple adults (including researcher/observer) in regard to changes or feedback to the Project Kaleidoscope system generally, and Camp Kaleidoscope specifically.
<td colspan="2" align="center">**Beliefs**</td>
Adult Learning Opportunity	Use this code when an adult expresses that they have learned something—whether from the curriculum, a student, other adult, and/or the experience of Camp Kaleidoscope generally. Ex.: A parent volunteer describes how they will implement something they learned at the SI in their home. Ex.: A teacher describes how a student taught them about a topic that they themselves were unfamiliar with.
Expressed Perceptions regarding Multiple Adults	Use this code when an adult expresses their perceptions/opinions vocally or through actions and interactions of the role of multiple adults in a shared classroom setting. This could be negative or positive; relate to other teachers, TAs, parents, etc.
Adult Beliefs (Other)	Use this code when an adult (any of the multiple adults other than the observer/researcher) expresses their beliefs vocally (anything other than that which is specific to multiple adults). For example, this could include their teaching and/or gifted philosophy, beliefs about curriculum, their opinions regarding students, etc.
Observer Reflection*	Use this code for the observer reflection notes, usually found at the end of the observation, however observer reflection notes may be found anywhere within the observation.

	The note may be a comment on what is happening during the classroom instruction. It may also be a summary that provides context or other information about the lesson, students, or classroom. Observer questions, commentary, connections to other observations/schools/literacy practices/modules all count as observer reflection. Brief clarification or descriptive notes from the observer should not be labeled with this code. Ex: Clarification about location of students in the room or who was speaking at a given time.

*indicates the code was taken from the larger research project's Summer 2018 SI Code System

**indicates the code was modified based on an existing code within the larger project's Summer 2018 SI Code System

Appendix H: Round 2 Code List

*MA = multiple adult (includes two teachers, parent volunteers, student-teaching assistant)

Code	Definition

Missed Opportunities and MAs	Use this code for the following:
	• When MAs are present and a missed opportunity occurs (i.e., missed opportunity **with** MAs)
	   o Ex.: A parent volunteer is present but there is a missed opportunity when they are working with a small group because they are not asking open-ended discussion questions.
	• When a missed opportunity occurs when MAs are not present or it is noted that MAs could have addressed this missed opportunity (i.e., missed opportunity **due to lack of** MAs present)
	   o Ex.: A small group of students is working on a task. There is no adult in their group so the students are off-task and/or the students' thinking is not extended to focus on enduring understandings aligned to the concrete task.
	*note that this code also includes MAs' perceptions regarding missed opportunities

Maximized opportunities and MAs	Use this code for the following:
	• When MAs are present and a maximized opportunity occurs (i.e., one or multiple adults takes advantage of having MAs in the classroom by extending learning and/or talent development; something that would not have been able to happen with only one adult present)
	   o Ex.: During snack (non-instructional time) one or several MAs are sitting with the students having conversations related to the content or big idea of the daily lesson.
	   o Ex.: There are four small groups working and each has a MA supporting instruction.
	*note that this code also includes MAs' perceptions regarding maximized opportunities

Frequency/duration of MAs	Use this code for the following: • When a reference is made to the frequency and/or duration of MAs being present in a classroom. This should be used for all references regarding time regardless of how little or much time is being referred to. This includes, but is not limited to, teacher or other MA beliefs and observer comments. This could also be Camp Kaleidoscope specific or more general in nature.

	- o Ex.: One teacher comments that Jada's presence in the 2017 SI helped her to be prepared and know how to support the teachers for the 2018 SI. - When the frequency and/or duration of a MA being present in the classroom is a help to them supporting students or teachers. - o Ex.: Jada is able to help a student who was previously absent to create their hand puppet because she is familiar with the task since she was present for all of Week 1 of the SI. - When frequency/duration is a hinderance to supporting students or teachers. - o Ex.: A parent volunteer arrived late and was not present for the Opening Circle. - o Ex.: One teacher notes that having parents in their classroom during the school year is challenging because the parent is not in the room often enough to know the routine, expectations, etc.
Initiative	Use this code for the following: - A MA other than a teacher takes initiative (instructional or non-instructional) to support students and/or teachers. - o Ex.: A parent sees that a student is struggling to write something down and asks, "what are you writing, buddy?" and the two engage in a conversation with the parent helping the student to vocalize their idea and then sound out the words to write it on their paper. - A MA describes the role of/makes reference to initiative or a lack thereof (this could also include observer reflections and comments). - o Ex.: During an interview, one of the teachers comments on Jada's initiative and how this helped her because the teachers did not have to stop and explain—Jada just knew what to do to support the teachers and students.
Versatile/versatility	Use this code for the following: - When MAs demonstrate versatility (i.e., adapting easily from one role/task to another). - o Ex.: One teacher is leading instruction while the other is supporting. During the task/activity, the two teachers seem to switch roles (i.e., leading or supporting instructor) without ever vocalizing to the other or otherwise indicating a need to switch roles.

	• When MAs lack or do not demonstrate versatility and being able to/capable of switching from one task or focus to another would be helpful or is needed. ○ Ex.: The teachers discuss a curriculum deviation where they would parallel teach the same center at the same time; however, one of the teachers is not able to teach a center other than the one they were originally planning to teach/lead. *note that this code also includes MAs' perceptions regarding versatility

Curricular experience/expertise	Use this code for the following:
	
	• When MAs (any, but mainly the two teachers) demonstrate experience/expertise or a lack thereof in regard to the "Once upon a time…" curriculum. This includes when MAs or observer reflections directly address/make reference to the role of curricular experience/expertise.
	
	    ○ Ex.: The student teaching assistant is preparing an upcoming activity because she is familiar with/has experience with the curriculum and therefore knows what needs to be done for activity set-up.
	
	    ○ Ex.: One of the teachers notes that they were not as familiar with the curriculum since it was the first time teaching it, but now that she has taught it once she would like to implement aspects of it into her teaching during the school year.

Other pedagogical or content experience/expertise	Use this code for the following: • When MAs demonstrate experience/expertise or a lack thereof in regard to aspects of Camp Kaleidoscope other than the curriculum itself (e.g., familiarity with expectations of the classroom, knowledge of students, etc.). This includes when MAs or observer reflections directly address/make reference to the role of experience/expertise regarding pedagogy and content (other than that which is specific to the curriculum). ○ Ex.: One of the teachers plans to add in a stretch break to the daily lesson because she knows the students will likely be tired or distracted from sitting for an extended period of time.
Curricular focus	Use this code for the following: • When there is a noted or particular focus (by observer or any MAs) when implementing the "Once upon a time…" curriculum. ○ Ex.: The teachers explaining ways parent volunteers and Jada were needed to implement

	certain aspects of the curriculum (e.g., when students were in any small group, when the topic was more in-depth, when there was more set-up required for a task).
	    ○ Ex.: When conducting the daily lesson, one teacher repeatedly makes reference to the enduring understandings of the day, indicating a focus on this curricular aspect.
	• This could also include areas of the curriculum in which teachers expressed areas of concern or need for additional support
	    ○ Ex.: Students understanding the big idea of the day
	    ○ Ex.: Implementing the curriculum with exact fidelity
	    ○ Ex.: Simplifying the curriculum so the students could complete tasks more easily
	*note that this code also includes MAs' perceptions regarding curricular focus

Curricular fidelity	Use this code for the following:
	• When MAs (mainly teachers but could be any) reference making changes, adjustments, etc. to the curriculum. These could have been planned, in-the-moment, or inadvertent curriculum changes. Also, if there are expressed benefits or challenges to curriculum fidelity.
	    ○ Ex.: The teachers explain that they decided to extend the lesson by including an additional read-aloud aligned to the big idea/enduring understanding of the daily lesson.
	    ○ Ex.: One teacher describes how she will implement aspects of the SI curriculum into her classroom, but that she plans to make changes so that challenges she experienced during the first curricular implementation are not repeated.
	**Note that this code is not the same as curriculum deviation. That code was focused on noting deviations. This code is intended to dig deeper into the "why" behind curriculum deviations and fidelity or a lack thereof to the curriculum.

Relationship between/among MAs	Use this code for the following: • When MAs or the observer makes reference to the relationship/dynamic between or among MAs. This could be specific to Camp Kaleidoscope or more general. It could reference a positive relationship/dynamic, a changing relationship/dynamic, or a relationship/dynamic that is challenging.

	o Ex.: One teacher describes how her previous experience of working with the other teacher allows them to have a strong working relationship where they each know the teaching style of the other.
	• This could also include the engagement or lack thereof between and among various MAs.
	    o Ex.: The observer notes that the teachers seldom interact with a parent volunteer and the parent seems unsure of what to do.
	• This could also include references to or instances of "power dynamics" or "power structures" between/among various MAs.
	    o Ex.: One teacher referenced the challenge of one person dominating instruction or co-teachers not being on the same page when it comes to teaching style/approach to instruction.

Appendix I: Overview of Actions of Multiple Adults

Key: ● = instructional, including support; ● = non-instructional support;
● = observing instruction; ● = action not indicated, unclear; empty box = not present

		Ms. Little	Ms. Sykes	Parent Volunteer	Student-teaching Assistant
Day 1	Pre-lesson	blue, purple	blue, purple		purple
	Opening Circle	blue, purple	blue, purple	yellow	purple, yellow
	Read-aloud	blue	blue, purple	yellow	gray
	Whole-group Activity	blue, purple	blue, purple	blue, yellow	blue, purple
	Snack	blue, purple	blue, purple		purple
	Centers	blue	blue, purple	yellow	blue, purple
	Closing Circle	blue	blue	gray	purple
	Closing	purple	blue, purple	gray	purple
	Post-lesson	blue, purple	blue, purple		purple
Day 2	Pre-lesson	blue, purple	blue, purple		blue, purple
	Opening Circle	blue, purple	blue, purple		gray
	Read-aloud	blue, purple	blue, purple		purple
	Whole-group Activity	blue, purple	blue, purple		purple
	Snack	blue, purple	blue, purple		purple
	Centers	blue	blue, purple		blue, purple, yellow
	Closing Circle	blue, purple	blue, purple		gray
Day 3	Pre-lesson	blue	blue, purple		blue, purple
	Opening Circle	blue, purple	blue, purple	blue, purple	blue
	Read-aloud	blue	blue	gray	purple
	Whole-group Activity	blue	blue, purple	blue, purple, yellow	purple
	Snack	blue	blue, purple	purple	blue, purple
	Centers	blue, purple	blue, purple	purple, yellow	blue, purple

Day	Activity	Col 1	Col 2	Col 3	Col 4
	Closing Circle	blue	blue	blue, purple	purple
	Closing	blue, purple	blue, purple	gray	gray
	Post-lesson	blue	blue		gray
Day 4	Pre-lesson	blue, purple	purple		blue, purple
	Opening Circle	blue, purple	blue, purple	blue, purple	purple
	Read-aloud	blue, yellow	blue	yellow	purple
	Whole-group Activity	blue, purple	blue, purple	blue, purple, yellow	blue
	Snack	blue	blue, purple	gray	purple
	Centers	blue, purple	blue, purple	yellow	blue, purple
	Closing Circle	blue	blue, purple	gray	blue, purple
	Closing	gray	purple	gray	gray
	Post-lesson	blue, purple	gray		gray
Day 5	Pre-lesson	blue, purple	blue, purple		
	Opening Circle	blue	blue	yellow	
	Whole-group Activity	blue	blue	blue, purple, yellow	
	Snack	purple	blue	gray	
	Read-aloud	blue	blue	gray	
	Centers	blue, purple	blue, purple	blue, purple, yellow	
	Closing Circle	blue, purple	blue, purple	gray	
	Closing	purple	gray		
	Post-lesson	blue	blue		
Day 6	Pre-lesson	blue, purple	blue, purple		
	Opening Circle	blue	blue		
	Read-aloud	blue, purple	blue		
	Whole-group Activity	blue, purple	blue, purple		
	Snack	blue, purple	blue		
	Centers	blue, purple	blue, purple		

Day	Activity			Parent Volunteer 1	Parent Volunteer 2
	Closing Circle	🔵🟣	🟣		
	Closing	⚪	🟣		

*

Day	Activity			Parent Volunteer 1	Parent Volunteer 2
Day 7	Pre-lesson	🔵🟣	🔵🟣		
	Opening Circle	🔵🟣	🔵🟣	🔵🟣	
	Read-aloud	🔵🟣	🔵	🟣🟡	
	Whole-group Activity	🔵	🔵🟣	🔵🟡	🔵🟣🟡
	Snack	🔵	🔵	🟣	🟣
	Centers	🔵	🔵🟣	🔵🟡	🔵🟣
	Closing Circle	🔵🟣	🔵🟣	🟣	🟣
	Closing	🟣	🟣	⚪	⚪

**

Day	Activity			Parent Volunteer 1	Parent Volunteer 2
Day 8	Pre-lesson	🔵	🔵🟣		🟣
	Opening Circle	🔵🟣	🔵	🔵🟡	🔵🟣
	Read-aloud	🔵	🔵🟣	🔵	🟣
	Snack	🔵	🔵	🔵🟣	⚪
	Whole-group Activity	🔵🟣	🔵🟣	🔵🟡	🔵🟣🟡
	Centers	🔵🟣	🔵🟣	🟡	🔵🟡
	Closing Circle	🔵🟣	🔵🟣	⚪	
	Closing	🟣	🟣	⚪	

Note: Two teachers and two parent volunteers present; no student-teaching assistant; final two columns are adjusted for this day only
**Note:* Two teachers, one parent volunteer, and one student-teaching assistant present; columns for this day are the same as Days 1-6 above