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Levels of Feedback Observed in Kindergarten Classrooms: Perceptions and Reality

A dissertation

presented to

the faculty of the Department of Early Childhood Education

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Philosophy in Early Childhood Education

by

Jacqueline Johnson

December 2017

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Dr. Pamela Evanshen

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Keywords: Feedback, Kindergarten Students, Effective Teachers, Teacher Perceptions

ABSTRACT

Levels of Feedback Observed in Kindergarten Classrooms: Perceptions and Reality

by

Jacqueline Willis Johnson

The most powerful influence on student achievement is the classroom teacher and the most effective instructional strategy teachers can use to increase student learning and achievement is effective feedback (Hattie & Timperley, 2007). The research on teacher feedback in kindergarten classrooms is scarce therefore this study helps reduce the void in the literature on the importance of teacher feedback in kindergarten classrooms.

The purpose of this study was to examine effective teachers' perceptions of the amount and kind of feedback they provide to their students and to determine if their perceptions match the feedback they actually provide. The participants in the study were four teachers from a public elementary school in middle Tennessee. Each teacher received the rating of effective teacher according to their 2015-2016 state-wide teacher evaluation.

This study is based upon Lev Vygotsky's sociocultural theory which proclaims student learning can be increased when teachers provide the necessary support to complete a task at a level higher than their current level of functioning. Teacher feedback is an effective and efficient instructional strategy to bridge the gap between students' actual level of understanding and the level required to become independently successful. It is important, therefore that teachers

become knowledgeable of feedback that will encourage rather than discourage independent learning.

The qualitative design of this study included observing and analyzing teacher feedback during whole group instruction in kindergarten classrooms. The researcher collected data on four observed levels of teacher feedback: feedback about the task, feedback about the process, feedback about self-regulation and personal feedback about the self.

Teachers' perceptions of the kinds of feedback they provide most frequently did not match observed levels of feedback. The participants perceived themselves to provide more feedback about the process and self-regulation which are the most effective levels of feedback to increase student achievement. Their perceptions did not match observed levels of feedback provided to their students.

The results of this study may be used as a catalyst for districts to provide professional development to instruct teachers how to effectively use the four levels of teacher feedback to increase student academic progress.

DEDICATION

It is a difficult task to express my appreciation to those who have traveled with me on this journey. It is humbling to recall how each has supported me, and words cannot express how each has contributed to helping me accomplish my goal. I will not only remember this journey for the rest of my life but my family, friends, committee members, and mentors who accompanied me.

This dissertation is dedicated to my friends, my families at “The Village,” and my personal family. To Kathy Green and Deborah Lock, there is no way I can do justice in placing a value on your support in helping me through tough times. To Helen Lane, my dear friend, we have leaned on each other all the way to the end of this path in life. I will cherish your friendship forever. To Margaret and Deanae, I would fail at any attempt to capture with words how much your spiritual guidance, prayers and momentous support has been my lifeline before, during and God willing, for many years after this milestone. To my parents at “The Village”, thank you for cheering me on and your patience during those times when I switched events with the children to meet deadlines for my research.

Education has always been a high priority in our home. I dedicate this dissertation to my mother, Carter Ruth Willis Williams; my sisters, Frances and Michelle; and to the memory of my brother, James Earl. I cherish the love and expressions of pride shown by my children, Christopher, Charlotte, Marcus and Marissa. I also appreciate the jokes about being a “student” along with my grandchildren, Ania, Peyton, Amir, Roman, and Andrew. I hope through my work ethic and perseverance I have served as a role model for them and my other grandchildren, Anakin, Harley-Quinn and Khaleesi who are not yet in school. Once again, thank you to all my

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Lord, plans to prosper you and not to harm you, plans to give you hope and a future” (Jeremiah 29:11). I can indeed do all things through Him as He strengthens me. To God be the glory.

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CHAPTER 1

INTRODUCTION

Throughout the nation, schools have been experiencing increased demands to hold teachers accountable for student achievement. This demand is leading to an increase in teacher accountability measures. Resulting accountability measures include observation of specific strategies implemented by kindergarten through twelfth grade teachers. These measures were intended for three purposes (a) to increase student achievement, (b) to hold teachers accountable for identifying gaps in student learning before they fell behind, and (c) to hold teachers accountable for providing appropriate interventions to children who are struggling (Guernsey & Mead, 2010).

As the beginning of formal education in America, the kindergarten years are critically important as the pressure to increase student achievement continues to be a national focus. “Kindergarten is a critical period in children’s early school careers. It sets them on a path that influences their subsequent learning and school achievement” (West, Denton, & Germin-Hausken, 2000, p. v). Kindergarten is a time of growth and exploration; a place where children learn by experiencing the world around them without fear of making mistakes and where they feel their efforts are valued. Therefore, the role of the teacher in this critical year is to provide foundational instruction and other necessary supports to help students become successful.

According to McCrea (2013), “the role of the kindergarten teacher in assessing a child’s future performance cannot be overemphasized” (p. 4). McCrea (2013), also stated, kindergarten teachers’ perceptions “...determine in large part how children are taught and evaluated in kindergarten” (p.2). Moore (2008) found most kindergarten teachers perceive self-regulatory skills to be more of a concern than academic skills for school readiness. Lin, Lawrence &

Gorrell (2003) found kindergarten teachers perceptions of school readiness "...tend to view preparing children to satisfy social demands of schooling as a higher priority than academic skills development" (p. 233). Dockett, Perry, Tracey (2000) found teachers identified children's capacity to follow instructions as one of the most important domains of school. However, "children need to possess a number of academic skills and competencies in order to participate actively in formal learning offered in schools" (McCrea, 2013, p. 14). Across the nation there exists a demand of greater accountability from schools and teachers for increased student achievement and employing consistent, reliable teaching strategies to impact learning and achievement. Therefore, as a primary influence on student learning and achievement, it is important to study if teachers' perceptions of how they teach align with what they are observed to teach.

Several studies have shown an individual teacher can significantly impact student learning and achievement (Fisher & Frey, 2007; Frey & Fisher, 2011; Hattie, 1999; Hattie & Timperley, 2007; Marzano et al., 2005; Wright, Horn, & Sanders, 1997). Wright et al. (1997) determined the classroom teacher to be the most important factor to affect student achievement. Furthermore, Sanders and Horn (1998) found teacher effect "to be the dominant factor affecting student academic gain" (p. 5). Also, Wong, Britton, and Ganser (2005) suggested teacher effectiveness is the most significant factor in raising student achievement. As a result of these and other important studies (i.e., Little, Goe, & Bell, 2009; Marzano, Pickering, & Pollock, 2001; Rand Corporation, 2012; and Sanders & Rivers, 1996), teacher effectiveness has been shown to be the critical factor in increasing student academic achievement (National Research Council, 2001). It is therefore important to identify and describe specific teacher strategies that affect student achievement.

Teacher accountability has been a national priority since the implementation of the No Child Left Behind Act (NCLB) of 2001, signed into law by President George W. Bush (Jorgensen & Hoffmann, 2003). NCLB reauthorized the Elementary and Secondary Education Act of 1964 (ESEA), the principle federal law affecting education from kindergarten through high school. NCLB included four main points: “accountability for results, an emphasis on doing what works based on scientific research, expanded parental options, and expanded local control and flexibility” (U.S. Department of Education, 2004, p. 1). The first of the four main points, accountability for results, has received an increasing national focus on accountability for student outcomes, specifically, student learning and achievement.

In studies identifying practices of effective teachers, several researchers have noted the positive relationship between student achievement and the range of teacher strategies to engage students (Bulger, Mohr, & Walls, 2002; Gardiner, 1998). One strategy in particular, teacher feedback, has been found to be a significant determinant of academic achievement in the classroom. According to Hattie (1999), as a teaching strategy, feedback is one of the most powerful influences on learning and achievement. The interrelatedness of student achievement, teacher effectiveness and teacher feedback, suggests these important topics should be included in studies involving effective practices of classroom teachers.

An important strategy used by effective teachers is to provide students with meaningful feedback. When given at the appropriate level, it provides guidance to students on their performance (Kim, 2010). Tunstall and Gipps (1996) found feedback to be most effective when focused on improvement and achievement. Dale (2011) reported researchers consistently found when teachers used effective feedback, student achievement was positively and powerfully impacted. An examination of effective research-based practices, such as effective teacher

feedback and observations of teaching strategies used by kindergarten teachers to impact student achievement, is an important component in this research

Statement of Purpose

Across the nation schools are placing a greater emphasis on evaluating teachers' effectiveness based on student achievement. Recent studies have shown the most powerful factor in student achievement is the classroom teacher (Frey & Fisher, 2006; Hattie, 1999; Hattie & Timperley, 2007; Marzano et al., 2001; Wong, 2005; Wright et al., 1997), yet little research currently exists on the systematic investigation of the power of feedback to increase student learning in kindergarten through second grade. This is primarily because much of the research on American school children is focused on students in grades four through twelve and "little information is available on kindergarten programs in the United States..." (West et al., 2000, p. v.). It is compelling that as a nation, we seek to understand what is happening in kindergarten classrooms and provide teachers with the resources they need to implement strategies that will produce the greatest gains in student achievement.

When given correctly, teacher feedback can be a powerful teaching strategy by providing students with both cognitive and motivational factors in the learning process (Brookhart, 2008). Teachers are what matter the most in the classroom and the most powerful effect teachers can have on student learning and achievement is to provide effective feedback (Hattie & Timperley, 2007). Hattie (1999) identifies *dollops of feedback* as the single most important teacher strategy critical to student achievement. However, Stiggins (2007) and Hattie and Timperley (2007) found teachers provide little if any effective feedback, the frequency of teacher feedback is low, and when feedback is given to students it is often related to individual student characteristics (e.g., good boy, or good girl, or you did a good job) rather than related to the students' work (e.g,

you followed directions and placed the blocks in the same order as in the picture we drew).

Hattie and Timperley (2007) suggested feedback should focus on four levels to make the feedback effective (a) feedback about the task or product (FT) informs the student if their work is correct or incorrect and may also include information on how to correct or improve the product or task, (b) feedback about the process (FP) is the level of a deeper understanding of learning involving "...the construction of meaning (understanding) and relates more to the relationships, cognitive processes, and transference to other more difficult or untried tasks" (Hattie & Timperley, 2007, p. 93), (c) feedback about self-regulation (FR) provides information so the student can develop "...greater skill in self-evaluation or confidence to engage further on a task" (Hattie & Timperley, 2007, p. 93), and (d) feedback about the self as a person (FS) which is usually unrelated to the student's performance on the task but can impact learning "...only if it leads to changes in students' effort, engagement, or feelings of efficacy in relation to the learning..." (Hattie & Timperley, 2007, p. 96). In these situations, FS may impact learning for struggling students or students with low self-confidence.

The purpose of this study was to identify the kinds of feedback kindergarten teachers are using in the classroom and align those observations with reported teachers' perceptions. The four levels of feedback as defined by Hattie and Timperley (2007) were used to analyze the feedback kindergarten teachers provide to their students. This study asserts the level of teacher feedback and the circumstances under which it is given should be required instruction in teacher education programs and an essential component of professional development at every grade level.

Rationale

Although recent studies have shown the most influential factor on student learning is the classroom teacher (Frey & Fisher, 2006; Hattie, 1999; Hattie & Timperley, 2007; Marzano, et al., 2001; Wong, 2005; Wright et al., 1997), the literature is lacking in the amount of research on the effectiveness of kindergarten teachers in respect to effective teacher feedback. It should be apparent that when more than 93% of five-year-olds in America attend some form of kindergarten (Ackerman, Barnett, & Robin, 2005), and teachers are evaluated on the performance of these students, that more research is needed on factors that significantly affect student achievement. Teacher feedback has been identified as the most effective teacher strategy to increase student achievement therefore there is a need for research to identify the kinds and amount of feedback teachers give to their students. Providing effective feedback requires skill, time and thought (Hattie & Timperley, 2007) to improve teacher effectiveness and this study identified areas in which teachers provided effective feedback as well as missed opportunities to provide students with the levels of feedback that would enhance student learning and achievement.

Over a lifetime, students spend approximately 15,000 hours in school, which is equivalent to approximately 30 percent of their waking time with a teacher (Hattie, 2009), yet limited research exists on how best to help teachers develop and implement effective strategies for improving student achievement (Murnane & Steele, 2007). Effective teacher feedback is an important instructional strategy to increase student achievement but with such limited research available on kindergarten teachers there is a need to determine if teachers are aware of the impact of teacher feedback and how to use feedback effectively. Because of the substantial investment teacher preparation programs and professional development have made in training teachers, this

research will be important in examining what is currently happening in kindergarten classrooms with teacher feedback and contribute to the knowledge base of what effective teachers are doing. Evidence from this study of what effective teachers are doing regarding teacher feedback can be used to improve teacher preparation programs and professional development opportunities in terms of quality feedback that leads to student achievement.

Theoretical Framework

This study is based upon the sociocultural theory of Lev Vygotsky whose major writings include *Thought and Language* (1962), and *Mind in Society* (1978), both published and translated into English posthumously. Sociocultural theory focuses on cognitive development as a socially mediated process of learning in which adults provide support for children as they experience new concepts (Dodici, Draper, & Peterson, 2003). The child is described as a social being who communicates and learns through interactions with peers and adults, and within this reciprocal social context the child experiences competency (Farquhar & White, 2014).

Relevant concepts from Vygotsky's theory include (a) development occurs from the outside in, (b) zone of proximal development, (c) learning from mature adults or more able peers, (d) private speech, (e) cooperative learning, and (f) assessment (Vygotsky, 1978).

According to Vygotsky, there is an important relationship between the cultural and social effects on learning, therefore the role of the teacher is vital to how students acquire knowledge in the classroom. Vygotsky (1978) asserts that learning is first interpersonal through interactions with others, and as concepts are internalized, learning then becomes intrapersonal. When learning becomes internalized, it is not just duplication or replication of that learning, but the result of how an individual (a) processes what was learned, (b) synthesizes that information and (c) transforms their thinking to make appropriate application based on individual social, cultural

and historical contexts (Winsler & Carlton, 2003). Effective teaching not only involves imparting information and understandings but also involves providing the appropriate level of feedback so students can internalize the understandings and direct and evaluate their actions and efforts accordingly (Hattie & Timperley, 2007).

Bangert-Drowns, Kulik, Kulik, and Morgan (1991) identified categories of feedback along the interpersonal and intrapersonal levels. They stated feedback can be distinguished by the method in which it is delivered: interpersonal (via a teacher or peer); mediated (via text, computes, etc.); and learning domain (affective or cognitive). According to Salomon & Colberson (1987), feedback can either promote or inhibit learning thereby affecting the internalization process positively or negatively. Feedback such as FT, FP, FR, as identified by Hattie & Timperley (2007) positively promotes learning, whereas FS often inhibits learning because it addresses the student as a person such as praising the individual and does not offer information related to the task. Therefore, an understanding of the four levels of feedback can lead to more effective instructional practices to better help teachers understand under what circumstances to provide the most effective feedback that will enhance learning and achievement.

Hattie and Timperley (2007) identified four major levels at which feedback should be directed for maximum effectiveness. Feedback directed at the task (FT) or product, often referred to as corrective feedback, focuses on how well the task is accomplished or on the correctness or incorrectness of the task. Providing students with correct information (FT) is the foundation for the success of the next two feedback levels. Examples of feedback at the FT level are *good*, *right*, *no*, or repeating the students' response to indicate correctness or incorrectness. FT is the most frequently used feedback among teachers. The second level, feedback about

processing of the task (FP) focuses on external strategies and cues, such as those provided by the teacher, to assist in error correction or scaffolding. Whereas FT is more surface learning about the task, FP guides students toward constructing meaning and toward a deeper understanding of the task. Feedback at the FP level does not provide the answer but guides students as they arrive at the answer on their own. Examples would be feedback loops between the teacher and the student as the student is led by cues and other strategies. Feedback about self-regulation directs the student to use internal assists such as self-evaluation and confidence to accomplish the task. FR requires students to expend more effort than the other feedback levels in accomplishing a task. Examples of feedback at the FR level include, *what do you think will happen, think about it, or remember*. The last feedback level, feedback about the self (FS) as a person is the lowest level of feedback as it is focused on the personal level and rarely contains any information about the task or encourages engagement with or commitment to the learning goal. Examples of FS would be praise that is not related to the task such as *good boy*. Although each level has its significance, according to Hattie and Timperley (2007), feedback is most effective when it guides students from FT to FP and back to FR because it helps students understand how they are progressing in the learning goal, how they process information about the task and how to develop fluency and automaticity.

Classroom dialogue, such as feedback, is also an instructional strategy teachers can use to help students process information based on their unique social and cultural backgrounds. Any new information received is internalized against the backdrop of their formative socialization which is why teachers should continuously evaluate where children are in their learning (i.e. through effective teacher feedback). Hattie and Timperley (2007) stated feedback not only imparts information and understandings but it should also effectively assess and evaluate how

students understand information “...so that the next teaching act can be matched to the present understanding” (p.81). They identified three questions to describe how feedback contributes to this process and each question depends on the level to which the feedback is directed: where am I going (understanding the learning goals); how am I going (involving a teacher, peer or self-strategizing to provide information about progress or how to proceed), and where to next (providing more challenges, “...greater fluency and automaticity, more strategies and processes..., deeper understanding, and more information about what is and what is not understood” [Hattie & Timperley, 2007, p .90]) . Addressing these three questions, teachers can correct any inconsistencies and work within the child’s zone of proximal development to scaffold their learning to the next level.

Effective instructional practices also include teachers providing a temporary support to bridge the gap between students’ actual level of understanding and the level required to independently problem solve. Vygotsky (1978) refers to this process as the zone of proximal development (ZPD), a process where adults or more competent peers help students experience new concepts. According to Bodrova (1997), “The lower level of the ZPD is defined by the child’s independent performance and its upper level is defined by the most a child can do with assistance” (p. 20). The child is considered within the ZPD as long as improvement in level of knowledge is possible with adult assistance (Bowman, Donovan, & Burns, 2000). The teacher’s challenge is to ascertain where students are within the zone in order to extend their thinking to the point where students become independent learners; teachers continuously monitor students’ learning to keep students within their ZPD. (Cortazzi & Hall, 1998).

Vygotskian theory (1978) asserts students’ level of learning can be increased by providing the necessary support (scaffolding) to complete a task at a level higher than their

current level of functioning. This scaffolding process is continuously adjusted by varying students' participation to help them accomplish a task or goal (Greenfield, 1984).

Instructional scaffolding is crucial to effective teaching due to its capacity to provide students with the various sub skills to become independently successful (Clark & Graves, 2005). "Children need explicit scaffolding, constructed within expertly delivered instructional conversations that address the language, knowledge, and strategies required for problem solving..." (Gibson, 2008, p. 324). Scaffolding occurs when teachers temporarily provide extra guidance on a task to help the student advance to higher levels of thinking however, if given too much guidance, scaffolding can interfere with students' enthusiasm and motivation (Love, Burns & Buell, 2007). Teacher feedback is an effective and efficient instructional practice to help move students toward independent learning, however, it is important teachers are aware of the focus of effective feedback and how to give appropriate feedback that will encourage rather than discourage students' independence and enthusiasm.

According to Fosnot (1996), Vygotsky considered assessments that only address the ability to merely answer a problem as inadequate. However, when considering a learner's capabilities, the progress the student makes during formation of concepts in collaboration with an adult, is far more valuable than the final score on an assessment. Through an interactive process, such as feedback, effective teachers build on students' prior knowledge and then scaffold learning by providing effective feedback to help them adapt learning strategies to feedback received from teachers (Stiggins, 2002).

Vygotsky elaborated on the concept of mental tools. According to Bodrova and Leong (2001), these tools, or strategies, exist in various forms to help children restructure their thinking. One way children guide their own thinking is through talking aloud to themselves, a form of

procedural self-talk referred to as private speech. Although adults may use private speech occasionally, pre-school and elementary children gain the most from its use. Vygotsky described private speech as a precursor to verbal thinking that is very effective in helping children think through a problem when most of their higher mental functions have not developed fully (Bordrova and Leong, 2001). This self-talk becomes internalized and eventually the child learns to act without talking aloud.

According to Vygotsky (1978), the process of teaching cannot be separated from the process of learning, and learning is highly interactive. Teaching is indelibly linked to how children learn and develop intellectually. Because children enter schools from varied backgrounds, ethnicity, and cultures, it is essential that teaching is relevant. Teachers should ensure presentation of new information is connected to prior learning and relevant or children will have a difficult time making the association. Effective teachers understand the importance of providing students with clear learning goals and use effective teacher practices, such as feedback, that provide each student with opportunities to succeed academically.

According to Winsler and Carlton (2003), now more than ever, sociocultural theory is needed to help teachers "...understand, embrace, and respond pedagogically to the increasing ethnic, cultural, and linguistic diversity of today's early childhood classroom" (p.255).

Sociocultural theory offers a unique perspective of specific conceptual tools teachers need to consider in understanding and facilitating feedback to further enhance children's development and learning.

The Vygotskian perspective focuses on several areas in education including assessment, teacher-child interactions, and teacher education (Winsler & Carlton, 2003). To assess a child's cognitive ability, Winsler and Carlton (2003) suggested the Vygotskian approach of a child's

continuum of development is viewed from a perspective of their knowledge, skills, and abilities within their zone of proximal development. They further suggest Vygotskian theory places a premium on the contributions of society to individual development. Therefore, assessing a child's cognitive domain would naturally necessitate teachers having the skill to promote reciprocal communication and participation between teachers, students, peers and the student's environment. The power of feedback in formative assessment is evident in its ability to influence cognitive and motivational factors simultaneously (Brookhart, 2008).

According to Brookhart (2008), teacher feedback about a student's work is essential in formative assessment and she further stated, "Giving good feedback is one of the skills teachers need to master as part of good formative assessment" (Brookhart, 2008, p. 1-2).

Research Questions

The purpose of this study was to examine the kinds of feedback effective teachers are using and to understand if the feedback they actually provide aligns with their perceptions. Understanding the kinds of feedback effective kindergarten teachers are using in the classroom can serve as a goal for less effective teachers to incorporate in their toolbox of effective teaching strategies. The following questions guided this research.

1. How do teacher's perceptions of their use of feedback compare to the observed feedback given in the classroom?
 - a. How do teachers' perceptions match the observed amount of feedback given to their students?
 - b. How do teachers' perceptions match the observed levels of feedback given to their students?

2. What levels of feedback do effective teachers, as identified by Tennessee Educator Acceleration Model (TEAM) scores give to children in kindergarten classrooms?
 - a. What levels of feedback are given most frequently by effective kindergarten teachers?
 - b. What levels of feedback are given least frequently by effective kindergarten teachers?

Terms

The following words are defined for the purposes of this research study.

Effective feedback: Hattie (1999) defines effective feedback as feedback that provides the student with information on how and why they understand or misunderstand information and what they need to do to improve their understanding. Only oral feedback given during whole group instruction is the focus of this study.

Effective teacher: An effective teacher, as defined by the Tennessee Department of Education, and for purposes of this research, is a teacher who receives an overall TEAM rating of 3 with scores ranging between 2.75-3.49. Teachers with a rating in this range are considered “At Expectations” and identified as one who “understands and implements most of the instructional skills, knowledge, and responsibilities described in the TEAM rubric” and “uses data to set and reach teaching and learning goals and makes the expected impact on student achievement” (Tennessee Department of Education website, 2015).

Feedback: Feedback is defined by this researcher as verbal communications provided by a teacher to students during or after a task.

Feedback levels: Feedback level, as described by Hattie and Timperley (2007), refers to information at a particular level of a student's performance or disposition. The effectiveness of the feedback is influenced by the level at which the feedback was given: Hattie and Timperley (2007) identified four levels of feedback:

- Feedback about the task is (FT) feedback that informs the student if their answer was correct or incorrect or feedback that provides directions.
- Feedback about the process (FP) is the level at which the student receives feedback about the strategies he/she used to accomplish the task or feedback about strategies that could be used to accomplish or to extend the task.
- Feedback about self-regulation (FR) is feedback that points to the students' self-regulation, or abilities, or self-confidence (such as, *look to see if the bear you chose matches the one on the wall*).
- Feedback about the self (FS) is personal feedback about the student such as, *good boy* or indication of how smart the student is such as, *kiss your brain*.

Feedback loop: A complete cycle of output information, the feedback response, information about the response and reaction that results from this information (Easton, 1966).

Scaffold: Tharp and Gallimore (1988) define scaffold as providing tips, dialogue, cues, and other strategies to guide students as they adjust learning strategies and processes needed for independent problem solving.

TEAM scale score: The TEAM score is a combination of qualitative data, student growth data and student TCAP achievement data used to create a range of scores referred to as Level of Overall Effectiveness (LOE) Scale. Kindergarten students do not participate in

TCAP testing however the Tennessee State General Assembly passed a law (T.C.A. §§ 49-6-103–49-6-110) during the March 2016 legislative session that required all school districts to implement the state approved student growth portfolio model for kindergarten teachers in the 2017-2018 school year (Tennessee Department of Education, 2017). Fifty percent of kindergarten teachers’ evaluation will be comprised of classroom observations; 35% of the teacher evaluation is based on student growth according to the portfolio growth model and 15% of teachers’ evaluation is comprised of student achievement data based on school-wide or system-wide student growth as represented by TVAAS (Tennessee Department of Education, 2017). The descriptors for educator effectiveness are:

- Significantly Above Expectations (4.25-5.00)
- Above Expectations (3.50-4.24)
- At Expectations (2.75-3.49)
- Below Expectations (2.00-2.74)
- Significantly Below Expectations (Under 2.00)

Zone of proximal development (ZPD): Vygotsky (1978) refers to this process as the distance between what a child can accomplish while independent problem solving and the level of problem solving that can be accomplished with the guidance of an adult or in collaboration with a more expert peer.

Limitations

1. Given the small sample size of this study results should not be generalized to all effective teachers. Additionally, all four participants were female and taught at the same school, therefore generalization across gender or for teachers in different school districts cannot be made.
2. Most days the learning time began with a lengthy song and movement exercise for both Math and English Language Arts (ELA). Several times the teachers did not make any verbalizations during this time, however, the time was counted in the observation time. Therefore, some observations had considerably more verbalizations than others.
3. The presence of the researcher may have had a slight impact on teacher behavior during the observations, however, each teacher was visited several times by other observers in the classroom during the time the researcher was present. Therefore, the presence of the researcher may not have had a significant impact on teacher behavior.
4. Although all four teachers were rated as effective teachers by TEAM, their professional and educational backgrounds were slightly different. Additionally, one teacher had five children with disabilities in the classroom whereas none of the other teachers had any children with disabilities.

Summary

Kindergarten students, just as K-12 students, should be provided numerous opportunities to talk about their experiences and to learn how to construct meaning from their experiences. Effective teachers tend to scaffold students' learning in a variety of feedback levels by providing tips, dialogue, cues, and other strategies to guide students as they adjust learning strategies and

processes needed for independent problem solving (Tharp & Gallimore, 1988). Recognizing that effective teaching increases student performance, educators committed to students' academic success will want to nurture and enhance their skills to become more effective in the classroom (Cameron, Berger, Lovett, & Baker, 2007).

Therefore, this research compared teachers' perceptions of providing specific feedback to students to the kinds of feedback they were observed to provide. Additionally, this research identified and described the levels and amount of teacher feedback given by kindergarten teachers as identified by the Teacher Observation Feedback Checklist (Appendix A), an author developed checklist based on Hattie & Timperley's (2007) levels of feedback. Specifically, this research described the levels and amount of teacher feedback among effective kindergarten teachers.

CHAPTER 2

LITERATURE REVIEW

The increased focus on teacher accountability has emphasized the importance of identifying specific teacher strategies that have the greatest impact on learning. Teacher feedback is a classroom strategy that is crucial to the learning process (Hattie & Timperley, 2007). In fact, Marzano et al. (2001) stated “the most generalizable strategies a teacher can use is to provide students with feedback relative to how well they are doing” (p. 96). Heritage (2010) further states teachers need to provide feedback strategies to support metacognitive development and self-regulation. Wiggins (2012) also suggests more emphasis should be placed on how feedback can improve learning which is becoming a topic of interest, especially in Tennessee, with the Department of Education teacher evaluation tool, Tennessee Educator Acceleration Model (TEAM) based on student achievement (Tennessee Department of Education, 2015). TEAM includes an evaluation of teacher feedback (Appendix B) at all grade levels including kindergarten classrooms.

This review of related literature acknowledges effective teacher feedback as the most powerful teacher strategy to enhance student learning (Hattie, 1999). Hattie (1999) defines effective feedback as feedback that provides the student with information on how and why they understand or misunderstand information and what they need to do to improve their understanding. According to Marzano (2007) effective feedback should focus on specific skills and knowledge teachers want to convey to students. Hattie and Timperley (2007) identified four levels of effective feedback however it is questionable whether teachers exhibit a clear understanding or consistent application of effective teacher feedback. The following sections

will include a review of the literature on teacher accountability, effective teachers, and teacher feedback.

Teachers' Perceptions

Kindergarten teachers are a key factor in preparing children for school and school success as they “have been found to play an important role in further developing children’s school readiness” (McCrea, 2013, p. 12). Lewitt and Baker (1995) stated, kindergarten teachers “frequently make critical decisions for individual children based on their own notions [perceptions]” (p. 130). The perceptions of kindergarten teachers are multifaceted therefore it is important to understand how they perceive their use of teaching strategies that have been proven to increase student achievement. According to Lin et al. (2003), kindergarten teachers’ perceptions are shaped by “...their own experiences as learners and teachers, school structure, teaching conditions...” (p. 227) and other social and community needs and values. Lin et al. (2003) reported that in a study of kindergarten teachers by Heaviside and Farris (1993), they found kindergarten teachers perceived their role as societal agents of change in teaching certain school expectations and that over half of the teachers placed more importance on students’ ability to “...following directions, not being disruptive in class, being sensitive to others, and taking turns” (p. 226). If kindergarten teachers are placing more emphasis on behavioral factors than academic concerns, it is important to know to what extent teachers are providing specific teaching strategies that are easy to employ that will increase student learning and achievement. A review of the literature revealed very little research on teacher feedback in kindergarten classrooms as well as a significant void in the research on kindergarten teachers’ perceptions of feedback, therefore the need for further exploration in this area.

Influences on Teacher Accountability

Coleman Report

The role of schools and teachers in student learning has been a topic of concern for educational policy since the release of the 1966 Coleman Report. The report found the measured attributes of schools (curriculum, facilities) and teachers (teachers' verbal ability; educational background) have relatively small effects on student success. Since the release of the Coleman Report, several studies disputed the findings and have found that schools significantly affect student learning studies (Brophy & Good, 1986; Moynihan, 1968; and Hanushek, 2016). It has been a gradual but significant climb from the view of American schools and teachers having little effect on students to acknowledging the tremendous impact of the role of schools and individual teachers on student learning.

The Coleman Report (Coleman et al., 1966) was the result of the Civil Rights Act of 1964 which required the Commissioner of Education to conduct a national survey of educational opportunities in America. The report had a damaging effect on the perception of U.S. education as it concluded that the effects of schools and teachers only account for approximately 10 percent of the difference in student achievement (Coleman et al., 1966). However, Brophy & Good (1986) conducted a review of hundreds of studies in the 1970s on effective teacher practices and found individual teachers can profoundly affect student learning even if schools do not. Furthermore, their review of the research was so compelling that Brophy and Good (1986) determined, "The myth that teachers do not make a difference in student learning has been refuted" (p. 370). However, as a nation, there continues to be great concern about the impact of the American educational system.

Although national leaders had been troubled by a declining educational system, it was the relationship between the weakening of the economy and a poor educational system that paved the way for an outcry in educational reform. This dissention led to the establishment of the 1991 National Commission on Excellence in Education and subsequent laws which ultimately focused on the role of the teacher in student learning and achievement.

No Child Left Behind Act

On January 8, 2002, the No Child Left Behind Act of 2001 (NCLB) was signed by President George W. Bush. This Act embodied four key requirements: stronger accountability for student outcomes; greater flexibility for states, and local school districts in the use of federal funds; more school choices for parents of children from disadvantaged homes; and an emphasis on teaching methods grounded in research based practices (U.S. Department of Education, 2002). Under NCLB school districts that did not make sufficient Adequate Yearly Progress (AYP) for disadvantaged students were initially targeted for assistance. Districts that did not meet AYP after receiving assistance were put on corrective action and finally restructured. The intent was to ensure all children who were left behind (did not achieve AYP) were given every opportunity to succeed academically. By 2009 it had become evident that among other issues, the ambitious goal of NCLB, to have 100% of students in the United States proficient in reading and mathematics by the end of 2014-2015 school year would not be met, resulting in reauthorization of NCLB by Congress.

American Recovery and Reinvestment Act

President Barack Obama signed into law the American Recovery and Reinvestment Act of 2009 (ARRA), a historic legislation created to stimulate the economy, support job creation, and invest in education (U.S. Department of Education, 2009). The Act prepared the foundation

for reform in the educational system by supporting initiatives leading to gains in academic outcomes. The ARRA provided \$4.35 billion for a competitive grant program, Race to the Top (RTT), which would reward states for demonstrating success in making substantial gains in student achievement, achievement gap closure, increasing high school graduation rates, and ensuring students are college and career ready. The Act also required states to emphasize reform in the following areas: implementation of data systems that measure student growth and success and inform school personnel how to improve instruction; recruitment and retention of effective teachers and principals; and turning the lowest achieving schools into successful schools (U.S. Department of Education, 2010). Additionally, the competitive grants required school districts to put in place comprehensive reforms to "...encourage the broad identification, dissemination, adoption, and use of effective policies and practices" while "...significantly increasing student academic achievement for all groups of students" (U.S. Department of Education, 2010, p. 36). States receiving RTT grants would provide a model for other states to follow as they develop their own strategy to address educational reform (Rudalevige, 2003). Tennessee was one of two states to be the first in the nation to receive a Race to the Top grant.

First to the Top

First to the Top (FTT), Tennessee's competitive RTT application for federal funds to reform education, placed heavy emphasis on increasing student achievement and identifying effective teachers and providing them support where needed (Tennessee Department of Education, 2013). An important part of increasing student achievement was the implementation of the Tennessee Educator Acceleration Model (TEAM), an educator evaluation system that began in all Tennessee public schools in the 2011-2012 school year. TEAM was developed as a rubric based on research and best practices as outlined in numerous national and state teacher

boards and agencies, and from prominent researchers. Adopted by the Tennessee General Assembly in January 2010, the legislation required 50 percent of TEAM to consist of student achievement data with 35 percent of the evaluation to be based on growth through a TVAAS or equivalent measure, and the final 15 percent to be based on a measure of student achievement as adopted by the Tennessee Department of Education and selected by individual school districts. The evaluation included another 50 percent of qualitative measures comprising teacher observations of which the use of teacher feedback is observed; pre and post teacher conferences; and prior evaluations and performance.

TEAM Observations

The minimum number of teacher classroom observations is based on licensure and previous evaluation scores (Tennessee Department of Education, 2013). Teachers with a professional license are required to have a minimum of two classroom visits with a minimum of 60 total contact minutes. Apprentice teachers have a minimum of four classroom observations with a minimum of 90 total contact hours. At least half of the observed domains are required to be unannounced. The purpose of the observations is to identify the most effective teacher practices that improve student learning. Additionally, because teacher accountability for student achievement continues to be a national priority, it is essential to identify specific teacher practices that significantly impact student learning and achievement.

Teacher Effectiveness

The majority of early research on effective teachers has focused on two primary indicators of teacher effectiveness (a) identification of factors that contribute to teacher effectiveness, and (b) how to assess teacher effectiveness. In attempts to identify factors attributed to effective teachers, for years scholars have ensued in debates over whether teaching

is an art because of characteristics of a teachers' personality (Miller & Miller, 1971), or whether teaching is a science because of specific behaviors of effective teachers (Medley & Mitzel, 1959). According to Marzano (2007), the foundation of instructional strategies in the classroom should be built on strong scientific research, the art of teaching is in understanding when and with whom to use specific strategies. Additionally, Burns (2005) stated that although the educational arena benefits from scientific research, it must also consider more subjective judgments. The major issues to arise from the debate of teaching as an art, a science, or both has focused on what teachers are doing and how well they are doing in raising student performance. Since the mid-1970s, teacher assessment and teacher evaluations became the major tools for determining which factors were analogous to effective teachers (Berlinger, 1976; Shulmeister, 1978).

The measures used to determine student academic achievement are extremely important as these measures become the criteria for judging teacher effectiveness (Sammons, DeLaMatre, & Mujtaba, 2002). The authors suggested that focusing on a narrow range of measures will yield only partial indicators of effectiveness. Therefore, Creemers (1994) suggested including all processes occurring within the classroom (e.g., school leadership, climate, curriculum, etc.) when measuring teacher effectiveness.

Defining effective teachers has been a challenge. As policymakers became increasingly involved in educational reform, the question of what makes a teacher effective took on new importance and educational research began to focus on school factors related to learning outcomes (Darling-Hammond, 1999). The next section addresses the many ways effective teachers has been defined.

Defining Effective Teachers

Research has shown that the classroom teacher has a greater impact on student achievement than any other school factor (Bill and Melinda Gates Foundation, 2010; Chauncey, 2005; Goldhaber, 2002; Hanushek, & Rivkin, 2004; Hattie, 1999; Hattie & Timperley, 2007; Holley, 2008; Rivkin, Hanushek, & Kain, 2005; Wright et al., 1997). According to Wright et al. (1997), the teacher is the most important factor that affects student learning, and effective teachers tend to be effective with students "...of all achievement levels, regardless of the level of heterogeneity in their classrooms" (p. 63). Additionally, it has been found that effective teachers have more of an impact on student academic success than class size, per-student spending, socio-economic background, or previous academic performance (Chauncey, 2005).

Rivkin et al. (2005), using data from longitudinal information on individual student achievement in the state of Texas, sought to determine if there are "... significant and systematic differences between schools and teachers in their abilities to raise achievement" (p. 418). The data consisted of test scores of three cohorts of students from grades 3 through 7. The authors report that the repeated observations from the three cohorts of more than one-half million students in over three thousand schools determined that student achievement is correlated with teacher effects and with school effects. Results revealed there were large differences among teachers' impact on student achievement and they found that high quality instruction throughout the primary grades could substantially offset any disadvantages often associated with low socio-economic backgrounds. The results confirmed Heritage's (2010) assessment of high quality instruction which found that although scores inform students where they are at a fixed point, scores alone are not very helpful for instruction because they do not provide teachers with sufficient information they need to scaffold students' learning. Effective feedback is an

interactive process in which teachers build on the existing knowledge of their students to “...support or scaffold learning in small increments by focusing on key errors and prescribing the corrective steps needed for improvement” (Gallagher & Worth, 2008, p.5). This practice is very valuable in that it reveals gaps between what students know as indicated by scores, and the learning goals in order to reach the intended learning targets (Gallagher & Worth, 2008).

After looking at the differences between schools and teachers in raising student achievement, Rivkin et al. (2005) sought to determine important differences in teacher quality in student outcomes. They stated their findings are consistent with previous research in that the data does not provide evidence that a master’s degree or teacher test scores increases a teacher’s effectiveness, nor is teacher experience significantly related to student achievement.

Their study considered correlations of averages of fifth, sixth and seventh grade annual mathematics and reading achievement gains between two cohorts of students, to determine if there were any observable differences and the effects of school and teacher characteristics on student achievement and school resources and found that an advanced degree does not improve teaching skills; there is little evidence that the quality of teaching significantly increases after the first three years of teaching; there is a modest but statistically significant effect on reading growth in mathematics and reading in the early grades; and family socio-economic effects on student achievement are relatively small. Results concluded that these observable characteristics of schools and teachers, did not explain variations in achievement growth between classrooms in spite of the fact that there was substantial overall achievement gain in the between teacher variation. Heritage (2010) also suggested such studies are useful for accountability but in addition to considerations of teacher accountability, placement and certification, she suggested a closer look at instructional practices to support both teaching and learning.

Rivkin et al. (2005) concluded individual teachers have a significant impact on student achievement as they found large differences in the quality of instruction among teachers. Highly effective teachers who provide quality instruction need to have an indication of student's proximal zone of development (Heritage, 2010). Highly effective teachers recognize that knowing what learning is within the students' reach can help teachers more effectively plan for student learning and they make use of instructional practices, such as effective feedback to help students move forward (Heritage, 2010).

Finally, Rivkin et al. (2005) considered the total systematic effect of students, families, teachers and schools and used an approach to measure inputs (teacher) and outputs (student) in achievement. They used a comprehensive model of the rate of student learning to provide an analytical framework to help identify the variance of teacher quality and observable factors. This growth formulation, frequently referred to as a value-added model, eliminates many confounding influences such as prior histories of parental and school inputs. Wright et al. (1997) conducted the most comprehensive research on the use of a value-added in computing the effects of teachers on student achievement which resulted in the ability to measure student academic gain from year to year.

Wright et al. (1997), used a statistical mixed model analysis of variance (ANOVA) methodology to conduct a longitudinal analysis of student achievement data to determine system, school, and teacher effects on student academic gains. Student academic gains were calculated from students' scale score on the Tennessee Comprehensive Assessment Program (TCAP). TCAP is a mandatory achievement test for third through eighth graders, given each spring, to Tennessee students which measures reading, language arts, mathematics, science, and social

studies skills. TCAP assessments in English language arts (ELA) and math were replaced in the 2015-2016 school year with new measurements called TNReady.

One important component of the TCAP assessment was its ability to measure the academic progress of students from year to year to provide a measurement of student academic gain, which is a student's scale score in one year minus their scale score the previous year (Wright et al., 1997). Thirty analyses were conducted using TCAP scores in the spring of 1994 and spring of 1995 of third, fourth and fifth grade students. Two sets of school systems from Tennessee were used in the study: one set of thirty school systems in East Tennessee and another set of twenty-four school systems in Middle Tennessee. Classrooms were classified as low, moderate, and high achievement. Heterogeneity and class group size was classified as small, ten to nineteen students; or large, twenty to thirty-two students. Results clearly show two of the most important factors that influence student gain are the teacher and the achievement level for the student. Teacher effect was highly significant in each analysis and had the largest effect size in twenty of the thirty analyses conducted.

Wright et al. (1997) emphasized the identification and interpretation of factors that affect student learning and achievement are highly complex issues and acknowledged their study did not include direct, systematic observations of classroom teaching and learning such as the use of effective teacher feedback. They suggest such characteristics that differentiate teachers who consistently have students demonstrating high achievement gains over time, from those teachers who do not, appears to be a worthwhile future study on teacher effectiveness.

During the latter part of the last decade and continuing today, a growing body of research has focused on the link between effective teachers and student achievement scores as a direct measure of teacher effectiveness (Murnane & Steele, 2007). As a way of isolating the learning

that a teacher adds to students, value-added studies have been considered the preferred method of measuring teacher effectiveness as they tend to control for certain student characteristics of a student's background, past achievement scores and prior school characteristics that may influence student performance (Murnane & Steele, 2007). Value-added studies define a highly effective teacher as one whose students show the most academic gains from the previous year, as the goal of all teachers should be to add value to the academic experience of all students. Two initiatives in the state of Tennessee, the Tennessee Value Added Assessment System (TVAAS) and the Tennessee Department of Education's Student Teacher Achievement Ratio (STAR); and another initiative in Texas, the University of Texas at Dallas Texas Schools Project, have produced the most cited research on the use of value-added models to measure teacher effectiveness (Center for Public Education, 2005).

According to the Center for Public Education (2005), TVAAS, initiated in 1990, was the first system in the U.S. to track data for measuring the performance of individual teachers according to the annual achievement gains in student test scores and to make comparisons of teacher effects on student achievement. This statistical analysis of student achievement data (TVAAS) provides teachers and schools with individual student academic growth over time, grade level academic growth over time and school academic growth over time. The STAR Project was designed to "evaluate the effects of smaller classes on student achievement over four years (Center for Public Education, 2005, p. 2). The STAR is unique in that it randomly assigns students "from various racial and socioeconomic backgrounds to small and regular-size classes" (p. 2). When used with TVAAS, STAR provides a unique opportunity for educators to examine other variations in student achievement. When combined, TVAAS and STAR data determined teachers significantly affect student achievement and differences found in student achievement

were impacted more by the teacher than by ethnicity, socio-economic status or other school factors. Additionally, it was found that students who had identical scores prior to entering second grade (although not a mandatory testing grade) and had highly effective teachers for the next three consecutive years, in fifth grade, these students scored between 52 and 54 percentile points above students who had less effective teachers during those three consecutive years (Sanders & Rivers, 1996).

TVAAS and similar added-value studies have provided empirical evidence that teachers significantly impact student achievement however these studies do not identify specific teacher practices (i.e. teacher feedback) commonly recognized as measures of effectiveness. The following section identifies effective teachers as the most critical factor affecting student achievement and reviews research findings regarded as indicators of effective teachers such as the use of effective teacher feedback.

Indicators of Effective Teachers

Because of their impact on student achievement, teachers are vital to the learning process, yet there seems to be differing opinions as to what makes a teacher effective. There are many dimensions of teacher effectiveness therefore determining what makes teachers effective in the classroom can be a complicated task (National Commission on Teaching and America's Future, 1996). Stronge, Ward, and Grant (2011), suggested teachers are effective because of the combination of a variety of personal and professional factors that are executed in the classroom. According to the National Academy of Education (2005), effective teachers understand (a) cognitive stages of development, (b) how instruction supports development, and (c) how their students learn and perform. The National Board for Professional Teaching Standards (NBPT, 2012) provides a national voluntary certification upon successful completion of an assessment

program “designed to recognize effective and accomplished teachers who meet high standards based on what teachers should know and be able to do” (NBPT, 2012). Although the question of what makes teachers effective has been the focus of considerable research for decades (Aaronson, Barrow, & Sanders 2003; Berlinger, 1976; Creemers, 1994; Ferguson & Ladd, 1996; Frey & Fisher, 2006; Hattie, 1999; Hattie & Timperley, 2007; Marzano et al., 2001; Muijs & Reynolds, 2000; Muijs & Reynolds, 2001; Muijs & Reynolds, 2002; Murnane, & Steele, 2007; Reynolds, 1998; Rivkin et al., 2005; Sammons et al., 2002; Shulmeister, 1978; Stronge, Richard, & Catano, 2008; Stronge et al., 2011; Wong, 2005; and Wright et al., 1997), requirements in the No Child Left Behind Act (2001) included narrowing indicators of effectiveness to focus on specific aspects of highly qualified teachers.

In efforts to ensure improvement in learning outcomes for children, NCLB identified a highly qualified teacher as a teacher with full certification in a content area, a minimum of a bachelor’s degree and demonstration of competence in both subject knowledge and teaching skills (NCLB, 2001). After reviewing numerous teacher quality studies, Rice (2003) found content knowledge only contributes to quality teaching up to a certain point but an advanced degree does not necessarily improve ability.

Some studies have confirmed small effects of teachers’ academic ability, as measured by verbal aptitude scores and ACT scores, as predictors of student academic outcomes (Ferguson & Ladd, 1996; Murnane & Steele, 2007). In an analysis of student achievement of 30,000 fourth grade students, Ferguson and Ladd (1996) found teachers’ verbal and cognitive ability (as measured by ACT scores) have a greater impact on student achievement than socioeconomic class, class size and teaching experience combined. Sammons et al. (2002) stress that effective teachers “...show they believe all children can master the curriculum and emphasize the

positive” (p. 14). According to Reynolds (1998), effective teachers emphasize (a) the positive and (b) are successful in helping students gain an internal locus of control through focusing on their own efforts and outcomes.

Through questionnaires and classroom observations, the expanding research on effective teaching has focused on the relationship between teacher behaviors and student outcomes by identifying specific factors that correlate to student achievement and attainment (Muijs & Reynolds, 2002). Previous studies by the authors (Muijs & Reynolds, 2000; 2001), as well as prior research by Mortimore et al (1988), found classroom factors to be the primary predictors of student achievement over time. Therefore, Muijs and Reynolds (2002) sought to determine which classroom factors had the greatest impact on student achievement.

In a longitudinal study of 32 primary schools (and four comparison schools), Muijs and Reynolds (2002) investigated four classroom level factors to determine the effects on student growth in mathematics over a three-year period: (a) teacher behaviors, (b) teaching styles, (c) teaching beliefs, (d) teacher self-efficacy, (e) class size or setting. Students were tested at the beginning and end of each of the three years on a numeracy test that covered the main topics in the British national curriculum for the relevant age group. Teaching behaviors and teaching style of over 150 teachers were measured from 2-6 times over the three years using a classroom observation scale. Teacher beliefs and teacher self-efficacy were measured by a teacher questionnaire in which teachers rated themselves on a four-point scale. The study concluded there is not any one particular strategy, behavior, teaching method, or classroom organization that makes the difference in student achievement and growth in mathematics, but it is very obvious that a number of teaching and classroom factors have a definite effect on student

achievement with teacher behaviors as four times more significant than classroom organization and teaching styles.

Further, the body of research recognizes four teacher behaviors found to be positively related to student achievement: (a) providing a positive classroom climate demonstrating efficient classroom management, effective behavior management, a warm, supportive environment, and high teacher expectations and enthusiasm; (b) an interactive teaching environment characterized by the teacher's consistent and effective use of higher level questioning, appropriate use of wait time, and the use of immediate feedback which not only acknowledges correct answers/statements but prompts students to clarify, expand or correct incorrect answers/statements; (c) the use of a variety of teaching strategies for different learning needs and a variety of resources and materials to engage students; and (d) time on task which is described as the number of students actively engaged throughout the lesson or task (Muijs and Reynolds, 2002). The authors concluded the interaction of educational processes and various factors that produce certain educational outcomes are very complex, therefore all aspects of teaching need to be employed at the most optimal level. One aspect of teaching that has a tremendous impact on student outcomes is the teacher practice of providing effective teacher feedback. Research shows that it is not merely providing feedback to students that is critical, but it is the quality, timeliness and level of feedback that has the greatest impact on achievement (Hattie, 1999; Hattie & Timperley, 2007).

Teacher Feedback

Dorr (2006) stated, "Vygotsky was clear: the task of education and cognitive development is to connect abstract, schooled, scientific concepts to those of everyday life" (p. 138). Kindergarten students need guidance from their teachers as they attempt to make these

connections. Guidance is apparent when teachers scaffold students' learning by providing the necessary support to help them successfully complete a task, and with teachers' assistance, children can accomplish more difficult tasks than they can without teacher support and guidance (Vygotsky, 1978). One effective way of providing the support and guidance that will increase student achievement is through effective teacher feedback.

Wagner and Wagner (1985) defines feedback as any type of information provided to learners. Narciss (2006, 2008) defines informative feedback as any external information given as a post response to learners to inform them of their performance or position in the learning process. Ramaprasad's (1983) definition of feedback is information that alters the gap between the students' actual performance and the intended goal.

The most quoted definitions of feedback are knowledge of results (Arnett, 1969, p.12) and "information regarding some aspect(s) of one's task performance" (Kluger & DeNisi, 1996, p. 255). Early researchers have linked the two definitions to address the significance of teacher feedback to student learning (Arnett, 1969; Illgen, Fisher, & Taylor, 1979; Ivancevich & McMahon, 1982; and Wood, 1997). Academic feedback is a term used in academia that refers to strategies teachers use to inform students of the correctness of their written or oral responses and the term is profoundly associated with student achievement (Filby & Cahen, 1985).

Much of the research on feedback has been conducted in learning contexts associated with behaviorism and information processing (Van den Bergh, Rox, & Beijard, 2013), where the main objective was to either confirm or change one's learning or performance (Mory, 2003). They determined the purpose of feedback in academia to be different as feedback in the educational setting aligns more closely to the learning theory of constructivism.

Sadler (1989) states, in order to be effective, the feedback must (1) help students understand the learning goal, (2) inform students where they are in the learning process, and (3) provide students with strategies they can use to close the gap between what they know and to achieve the desired goal. Hamid and Mahmood (2010) proposed to be effective feedback has to be relevant to the needs of the student; has a specific purpose; is beneficial toward achieving academic goals; is helpful in raising student performance; is timely, and is descriptive rather than evaluative. These sources recognize a clear connection between effective teacher feedback and student achievement.

Since the 1990s, the link between teacher feedback and student achievement has received increasing attention. Bangert-Drowns et al. (1991) conducted a meta-analysis on the effectiveness of feedback and found although teachers can offer feedback in many ways (written, verbal, non-verbally), merely giving feedback is not enough to be effective so they stress the necessity of developing activities and questions that provide feedback to students about what to do next.

Whereas Bangert-Drowns et al. (1991) focused on the quality of feedback as opposed to its presence or absence, Butler and Neuman (1995), Kluger and deNisi (1996), and Black and Wiliam (1998) studied descriptive feedback. A number of researchers have conducted research on effective feedback strategies teachers use in primary classrooms (Tunstall & Gipps, 1996; Black & Wiliam, 1998; Clarke, 2000; and Hargreaves, McCullum & Gipps, 2000). Gipps, McCallum, and Hargreaves (2000) reported on feedback as a significant teacher strategy in the teaching and learning process which can be evaluative (judgment) or descriptive (providing information about the judgment). Tunstall and Gipps (1996) determined in order to be effective, descriptive feedback must be specific, constructive and individualized so that students

understand why they made mistakes in order to help improve their learning. Rodgers (2006) defined descriptive feedback as a strategy to focus on the details of the learning process. Kohn (1999) and Wong and Waring (2009) agree that praise, whether in the form of material rewards or words such as *very good* can be confusing as to exactly what is being praised. Wong & Waring (2009) suggested effective feedback should invoke awareness, reflection and a call to action. The general agreement on the outcomes of effective feedback is that it is a powerful teacher strategy to support and regulate learning processes (Ifenthaler, 2010).

Because of the impact of teacher feedback on student learning and achievement, it is important to understand the levels of feedback and the frequency of effective feedback to support student success (Dutke & Reimer, 2000). Some of the most compelling research on effective feedback that increases student performance has been conducted by Butler and Nisan (1986), Gipps and Tunstall (1998), Hattie (1999) and Hattie and Timperley (2007). These studies highlight the importance of (a) the presence of feedback, (b) timeliness of feedback, (c) the type of teacher feedback (descriptive vs. evaluative), and (d) the levels of teacher feedback (task, processing of the task, self-regulation or the self as a person) in the classroom.

Butler and Nisan (1986) examined the effects of (a) comments, (b) grades, and (c) no feedback on learning and motivation. Their study included a sample of 261 sixth grade students attending nine classes in three elementary schools. Three classes were randomly assigned to an experimental group receiving no feedback, an experimental group receiving nonthreatening comments, and an experimental group receiving grades. The researchers found when descriptive comments (descriptive feedback) were given, students scored higher on the final tasks. Those who received numerical grades (evaluative feedback) scored high on the quantitative task but lower on the qualitative tasks. The group that received no feedback scored much lower on the

final session. Butler and Nisan's study (1986) suggested both the availability and nature of the feedback to students would highly influence whether student interest is sustained or weakened.

In a meta-analysis on various instructional K-12 classroom strategies, Marzano et al. (2001) found that merely informing students their answers are correct or incorrect resulted in a negative effect size of $-.08$ and -3 percentile gain. When feedback provided additional information on what the student specifically did that was correct or incorrect, the effect size was $.53$ and 20 percentile-gain. Additionally, they found providing feedback within a short amount of time had an effect size of $.72$ and $.26$ percentile gain. The researchers further suggest a short time does not mean providing feedback within seconds of the student's answer as adequate wait time may allow the student an opportunity to clarify their response. However, when feedback was given after one week in K-12 classrooms, it had an effect size of only $.26$ and percentile gain of 10 , emphasizing the negative effect of delayed feedback on student achievement.

Black and Wiliam (1998) found marks or grades do not have a great impact on student learning. It is only when the feedback provides guidance in which students can understand their current status, progress and challenges that they can improve their learning and descriptive feedback, as opposed to evaluative feedback, was identified as an effective way to provide this guidance (Stiggins, Arter, Chappuis, & Chappuis, 2004). Stiggins et al. (2006) suggests teachers provide more descriptive especially during formative assessments so students can make adjustments in their learning summative assessments or their final grade. Stiggins et al. (2006), and Chappuis and Stiggins (2002) consider descriptive feedback as an ideal strategy for teachers to model how they want students to think through their work. Descriptive feedback should provide students with information and strategies to answer three questions: Where they are now in terms of their current status; where are they going in reference to achieving their goal; and

how can they close the gap between what they know and identify the next steps (Stiggins et al., 2004; Sadler, 1989).

Evaluative feedback is usually given in terms of letter or number grades, checks, smiley or frowning faces, or other symbols (Davies, 2003). She further states this type feedback informs the student that they may or may not need improvement, but does not provide the information they need to make a correction or to go deeper with their response. She suggests teachers decrease the amount of evaluative feedback and increase their descriptive feedback to improve student learning.

In an investigation of kinds of teacher feedback, Tunstall and Gipps (1996) conducted observations and tape recordings of classroom dialogue during whole class instruction, individual instruction and across the curriculum. Their study on teacher feedback consisted of eight first and second grade teachers and their students (N=49) in six schools across five school districts in London. Audio tape recordings of classroom dialogue and classroom observations provided evidence of feedback during whole class instruction, individual instruction, and across the curriculum. A total of fifteen visits were made to each school and between 24 and 36 hours data was collected from the recordings and observations on teacher feedback. Specifically, the researchers wanted to know about the kinds of feedback teachers give to their students and the students' perceptions of that feedback. From the study results, the authors developed a typology of quality feedback that identified feedback as evaluative (judgmental) or descriptive (task related) (Gipps & Tunstall, 1998).

Hattie (1999) conducted a comprehensive study of the previous 30 years on the effects of schooling and accumulated 337 meta-analyses and 200,000 effect sizes from 180,000 studies representing over 50 million students and covering practically all effects of schooling on

academic achievement. He found that the most powerful single influence on student achievement is feedback and the easiest and best way to improve education is through the use of “dollops of feedback” (p. 9). He further stated the foundation of teaching is to impart information and then assess and evaluate students’ understanding of the information and align the next teaching to what the student presently understands. Therefore, it is critical that feedback provides the student with information on how and why they understand or misunderstand information, and what they need to do to improve their understanding (Hattie, 1999). Additionally, he stated the quality of the feedback is more important than the frequency of feedback and oral feedback is more effective than written feedback (Hattie, 1999). In 2013, Hattie conducted over 800 meta-analyses consisting of 52,637 studies that involved 83 million students and provided 146,142 effect sizes on influences on student achievement. His study concluded that although teachers have a tremendous impact on student learning it is what teachers do that more critical to student learning than teachers’ educational level, years of experience and other similar factors. According to Hattie (2013), effective teachers implement strategies for students that model how to think or strategize about the learning content. When effective teachers see learning occurring, or not occurring, they use meaningful and purposeful strategies to alter the course of learning to help students meet the learning goal or challenge students who have achieved the goal.

Hattie (1999), along with a colleague, expanded his work proposed a model of four levels of feedback (Hattie & Timperley, 2007) in which the focus of the feedback impacts its effectiveness: (a) feedback task or feedback about how the student performed on a task, (b) feedback processing or feedback about cognitive processes, strategies and transference, (c) feedback about self-regulation or feedback that enhances self-efficacy, and (d) feedback about

the self as a person or personal feedback such as praise. Feedback about how the student performed on the task and feedback about the process students used to approach the work are the most powerful levels of feedback. Feedback that focuses on self-regulation strategies students use, or their abilities as capable learners, can also be powerful if the feedback is given in a way that it enhances self-efficacy. Whereas feedback about the self can be effective in terms of classroom interactions, providing feedback about the self is not an effective form of feedback in terms of furthering student learning. Therefore, according to the authors, effective feedback must be directed to the task and process, and/or to self-regulation as opposed to the self-level alone.

Hattie and Timperley's (2007) feedback model firmly affirms that feedback requires necessary skill involving both giving (by teachers) and receiving (by students) which goes beyond a stimulus-and-response exchange but is aided by a positive classroom climate and ensures opportunities, time, and resources for students to be responsive to feedback.

Summary

This review of related literature has provided a historical perspective of the classroom teacher as the most significant influence on student achievement (Frey & Fisher, 2006; Hattie, 1999; Hattie & Timperley, 2007; Marzano et al., 2001; Stronge et al., 2008; Strong et al., 2011; Wong, 2005; Wright et al., 1997) and identifies effective feedback as the most powerful strategy teachers can implement to enhance learning and achievement (Hattie, 1999). It is furthermore evident through this review that the research on teacher feedback to students in kindergarten through second grade is very scarce. This is especially true in kindergarten classrooms which indicates a vacuum that should be addressed. Recognizing the importance of feedback on academic achievement and the need for further research in kindergarten classrooms, the purpose

of this study is to describe the kinds of feedback that teachers use with their kindergarten students.

CHAPTER 3

METHODOLOGY

The purpose of this research was to examine teachers' perceptions of the amount and kind of feedback they provide to their students and to determine if their perceptions match what is actually happening in the classroom. The following questions guided this research:

1. How do teachers' perceptions of their use of feedback compare to the observed feedback given in the classroom?
 - a. How do teachers' perceptions match the observed amount of feedback given to their students?
 - b. How do teachers' perceptions match the observed levels of feedback given to their students?
2. What levels of feedback do effective teachers, as identified by TEAM scores give to children in kindergarten classrooms?
 - a. What levels of feedback are given most frequently by effective kindergarten teachers?
 - b. What levels of feedback are given least frequently by effective kindergarten teachers?

Research Design

A qualitative approach was used for this study because as noted by Hoepfl (1997), "qualitative methodologies are powerful tools for enhancing our understanding of teaching and learning" (p.47). Additionally, according to Creswell (2007), qualitative research is exploratory and is conducted in a natural setting where the researcher uses an instrument to collect information based on measures completed by the participants or by observations recorded by the researcher. Morse (1991) states a need exists for qualitative research when exploring a new topic

that needs to be understood, when the topic has not been studied with a particular sample before, or if the topic needs to be illuminated because little research exists in that area. The study of teacher feedback is a new area in need of study in kindergarten classrooms because of the scarcity of research at this grade level.

Strauss and Corbin (1990) defined qualitative research as “any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification” (p. 17). Hoepfl (1997) stated, “quantitative researchers seek causal determination, prediction, and generalization of findings, qualitative researchers seek instead illumination, understanding, and extrapolation to similar situations” (p. 47).

Although a quantitative design could also be appropriate for such a study as the present one, a qualitative methodology was used based on the rationale stated by Hoepfl (1997), “Qualitative methods are appropriate in situations where one needs to first identify the variables that might later be tested quantitatively, or where the researcher has determined that quantitative measures cannot adequately describe or interpret a situation” (p.48). The goal of this study was to identify and describe a phenomenon. The richness of details and insights from this study supports the possibility of a future qualitative study to help support discovery of what is happening in kindergarten classrooms.

The design of this study allowed the researcher to observe kindergarten teachers, an under represented research sample, in their natural environment as they provided feedback to students. The need exists to identify and describe teaching strategies that make the most impact on student achievement. There is an even greater need to understand what effective teachers are doing in kindergarten classrooms to affect student success. The design of this study provided the

researcher opportunities to enter classrooms and observe teachers' use of feedback in a natural setting during large group instruction.

Teacher feedback has been identified as a powerful strategy to impact student learning and achievement. Hattie and Timperley (2007) identified four levels of feedback. Utilizing a descriptive research design, the researcher developed a Teacher Observation Checklist (TOF) to identify the levels of feedback provided to kindergarten students and to record field notes. Additionally, audio recordings were made during the observations which were later transcribed and used to review the checklist and field notes. A questionnaire was also developed by the researcher to gain demographic information. The following pages describe the methods used to conduct this research on effective feedback in kindergarten classrooms.

Participant Selection

The following steps were taken to obtain permission for participation in this research. Contact information for directors of schools in middle and east Tennessee was obtained from the Tennessee Department of Education website. The researcher sent an email to school directors in the middle and eastern regions of the state requesting permission to conduct the current research in kindergarten classrooms. Only one school director in east Tennessee and two directors in middle Tennessee granted permission to contact principals in their school system regarding the research. Contact information for the principals of the three school systems were obtained from the school districts' website. An email was sent to principals informing them that permission had been granted by their school director to conduct research in their school and requesting permission to contact their kindergarten teachers about participating in the study. The email also stated eligibility to participate in this study requires teachers to have taught kindergarten one complete academic year prior to the 2016-2017 school year.

Only one principal from a school in east Tennessee and one principal from a school in middle Tennessee responded to the request to contact kindergarten teachers regarding participation in the study. A final round of emails was sent out one week after the first emails to solicit more responses from more principals in each of the three school districts. One week after the last email, there were no additional responses from principals.

One teacher from east Tennessee considered participating but after meeting with the principal, they decided the teacher would not participate in the study. That school was originally coded School A. An email was sent to all four kindergarten teachers at the middle Tennessee school, coded as school B, requesting their participation in the study. An informed consent form and a questionnaire (Appendix C) was attached to the email. The teachers were asked to sign, scan, and email the consent form and questionnaire to the researcher within one week if they chose to participate. They were further informed that the consent form with their original signature and initials, and the questionnaire would be collected by the researcher on the first day of observations. Each teacher returned the scanned consent form and questionnaire via email.

Participants

Four kindergarten teachers from the same school participated in this study. The principal provided the TEAM scores for the four teachers participating in the study. All four teachers were considered effective teachers as determined by their 2015-2016 TEAM level of effectiveness scores, Teacher W: 3.69, Teacher X: 3.78, Teacher Y: 3.66, and Teacher Z: 3.17. According to TEAM, 2.75-4.24 is considered an effective teacher.

All emails to and from all teachers were permanently deleted after assigning the codes to ensure anonymity. Emails to and from those choosing not to participate or who did not respond to the first round of emails were deleted as well.

The informed consent included procedures for the study, a statement that there were no known risks to participating in the study, benefits of participating, and statements attesting to confidentiality and voluntary participation in the study. The questionnaire (Appendix C) included personal and professional information about the four participants in this study. The information from the questionnaire is listed in the tables below.

Table 1

Teacher Demographic Information

	Teacher W	Teacher X	Teacher Y	Teacher Z
Years teaching kindergarten	5-9	2-4	2-4	10-15
Current certification	Early Childhood	Elem. Ed.	Elem. Ed.	Elem. Ed.
Age range	27-30	36-40	Over 40	36-40
Race/Ethnicity	Caucasian	Caucasian	Caucasian	Caucasian
Educational level	Master's	Bachelor's	Bachelor's	Bachelor's
Number of workshops, conferences, or presentations attended in past 3 years on whole group instructional practices	10-15	4-9	4-9	4-9

Although the student demographic was not inclusionary criterion, it provided a description of student enrollment to better understand the classroom composition of each teacher participating in the study. The focus of this research was on the teachers therefore the researcher chose not to have access to specific student information such as socio-economic status, achievement scores, etc. and only collected student classroom information as shown in the following Table.

Table 2

Teacher Classroom Information

	Teacher W	Teacher X	Teacher Y	Teacher Z
Number of assistants assigned	1	1	3	1
Number of children enrolled	18	17	17	17
Number of children with disabilities	0	0	5	0
Student's Race/Ethnicity				
African American	1	3	3	1
Asian American	0	0	0	0
Caucasian	12	11	5	10
Hispanic/Latino	4	3	8	6
Native American	0	0	0	0
Other	1	0	0	0

Setting

The setting was an elementary school in Middle Tennessee. The school serves 360 children in kindergarten through third grade. There are four kindergarten classrooms, four first grade classrooms, four second grade classrooms, three third grade classrooms, two fourth grade classrooms and three fifth grade classrooms in the school. The school has three English as Second Language teachers.

The population of the city is approximately 20,598 on 18.6 square miles. The city has the highest Hispanic and Latino population in the state and ranks number 5 in the state in income below the poverty line. It is the number one city in Tennessee of foreign born residents. The county ranks number 107 out of 107 counties in number of people over age 25 with a college degree and is number 104 out of 107 counties in number of people, age 25 and over, with a high school diploma. The school is located in a small, rural district with a high minority population.

Procedures

The researcher observed each of the four teachers at four different times for approximately one hour each visit over four months from November 2016 to February 2017. Each teacher was observed twice during a whole group math instruction and twice during a large group English language arts (literacy) instruction for a total of four hours per teacher.

The teachers were informed that the purpose of the study was to examine classroom interactions during whole group instruction but they were not instructed or asked to employ any behaviors, verbal or otherwise, that were not part of their daily routine. The only requirement was that the researcher would only observe literacy and math instructions. For consistency, this study refers to all literacy lessons as ELA which is the term used for literacy instruction by this county.

The researcher operated a portable audio cassette tape recorder to record teacher classroom verbalizations while observing the four kindergarten teachers during large group instruction. The tapes each hold 90 minutes of recording. The recorder was turned on at the beginning of the observation and was only turned off during observations when another school staff or visitor entered the classroom. The tape was resumed after the individual exited the room. The audio tapes were transcribed and amounts and levels of feedback were taken from the transcribed notes and entered on a researcher developed checklist.

Teacher Observation Feedback (TOF) Checklist (Appendix B). The TOF was developed by the researcher based on Hattie and Timperley's (2007) levels of teacher feedback and was used to record the level and amount of teacher feedback given during whole group instruction from the transcribed audio tapes. A voluntary consent form and IRB approval were previously obtained.

Data Collection

During the classroom observations, the researcher took field notes of on aspects of the classroom environment that could not be captured on audio. Such notes included instances when another person entered the room, when a teacher motioned to a child to respond, long silences and stares when there were behavioral issues. The audio tape recorder was operated by the researcher to record verbalizations during the whole group instruction. The audio tapes were transcribed and corroborated by field notes. The transcriptions are of each verbalization made by the teacher. Each verbalization was coded on the TOF with the letter “T” for teacher and numbered in sequential order at the end of the verbalization. The letter “C” was used each time a child or children spoke. A line was used (____) when a child’s name was spoken to maintain confidentiality. The letters “TC” reflected verbalizations by the teacher and a child or children simultaneously. Only teacher verbalizations were numbered as children’s verbalizations were not the focus of this study for example, *T good answer 5* indicates the teacher feedback was *good answer* and it was the fifth verbalization by the teacher in a particular observation.

The number for each teacher verbalization and the level of feedback given by the teacher was recorded on the TOF. A total was taken for the number of times feedback was given at each level (FT, FP, FR, FS) and recorded on the bottom of the TOF. Teacher feedback that did not address the task was not coded.

The total of verbalizations was divided by the total of feedback to obtain a percentage of feedback given during each one-hour observation for discussion in the Results section of this study. Each level of feedback was discussed in terms of frequency and according to its impact on student achievement in the conclusion of this study.

The researcher used the TOF Checklist to record levels and amount of teachers' verbal feedback according to the four levels of teacher feedback identified by Hattie & Timperley (2007): feedback about the task (FT), feedback about the process (FP), feedback about self-regulation (FR), and feedback about the self (FS). The data was used to determine percentages of each level and amount of feedback used by each teacher to determine percentages of feedback levels and amounts used by all teachers combined, and to determine the percentages of feedback levels and amounts used by most effective teachers.

Data Analysis

The researcher collected data to examine teachers' perceptions of their use of feedback and the most and least levels of feedback used by effective teachers as identified by TEAM. Each "T" or teacher verbalization about the task was coded as a feedback level TF, FP, FR or TS on the TOF and highlighted on the transcribed pages TF was highlighted in green, FP was red, FR was yellow, and FS was highlighted in purple on the transcribed pages. Verbalizations that were not related to the task were not recorded on the TOF and not highlighted on the transcriptions. Each feedback level was tallied on the TOF to get a total number of times each teacher gave FT, FP, FR, or FS to their students for a total count for each observation per teacher. A total of feedback levels for all four observations by each teacher was obtained for a frequency count of each feedback level. The levels of feedback and the frequency of each level were compared to teachers' perceptions of the amount and kind of feedback they give to their students. Teachers' perceptions of amounts and kind of feedback and the observed amounts and kind of feedback were examined to describe what is happening in kindergarten classrooms in terms of providing effective teacher feedback, the most critical component in the teaching and learning process.

The transcribed observations were reviewed and summarized under the heading of each feedback level and a summary was compiled integrating data from all observations. Teachers' responses regarding their perceptions of amounts and levels of feedback were reviewed and summarized as well.

Reliability of this study was ensured by the researcher scoring the TOF checklist for all observations to ensure uniformity in the scoring. Additionally, the researcher trained a public school teacher who has taught kindergarten for 21 years and a retired primary special education teacher to identify the levels of teacher feedback on the transcribed observations. Individual open coding was conducted by the researcher and the raters independently analyzed each of the transcripts and made notes in the margins of the TOF (Creswell, 1998). These notes consisted of key words that identified teacher verbalizations as one of the four feedback levels. The researcher and raters established inter-coder agreement (Marques & McCall, 2005) by comparing findings and discussing any inconsistent coding. Inter-observer agreement was met at 91% by the retired special education teacher and 81.8% by the current kindergarten teacher. The training was two hours in length and two practice scorings were made before the actual scoring for reliability.

Summary

The purpose of this chapter was to describe the research methodology including research design, setting, participants, procedures and measures used to conduct the study. A discussion of attaining reliability, data collection and data analysis were also discussed. The next chapter, Chapter 4, will discuss the results of the study for each participant by the levels of feedback used with their kindergarten students.

CHAPTER 4

RESULTS

Hattie and Timperley (2007) found teacher feedback to be the single most important thing teachers can do to improve student learning. They identified four types of feedback typically given by classroom teachers and described how each type affects student achievement. According to Brookhart (2011), feedback is effective only if it helps improve student learning, therefore, effective use of feedback in the kindergarten classroom occurs when teachers adjust their feedback based on the needs of the student. The purpose of this study was to examine effective teachers' perceptions of their use of feedback to actual feedback observed by the researcher. A second purpose of this study was to describe the kinds of feedback effective teachers use with their kindergarten students. This study was guided by the following research questions as the researcher observed teachers while using an audio tape recorder and a researcher made checklist.

1. How do teachers' perceptions of their use of feedback compare to the observed feedback given in the classroom?
 - a. How do teachers' perceptions match the observed amount of feedback given to their students?
 - b. How do teachers' perceptions match the observed levels of feedback given to their students?
2. What levels of feedback do effective teachers, as identified by TEAM scores give to children in kindergarten classrooms?
 - a. What levels of feedback are given most frequently by effective kindergarten teachers?

- b. What levels of feedback are given least frequently by effective kindergarten teachers?

The research questions were answered through an analysis of data collected from four kindergarten teachers at a public school located in Middle Tennessee. All four teachers scored in the effective range according to the Tennessee Educator Acceleration Model (TEAM), the statewide accountability system that replaced the accountability measures of No Child Left Behind (Tennessee Department of Education, 2017). A score of 3.0 identifies a teacher as effective. This chapter presents the results related to the research questions, beginning with the first question of how teachers' perceptions of their use of feedback compare to the observed feedback given in the classroom.

Teachers' Perceptions

Participants were provided a list of categories of teachers' characteristics that impact student learning and asked to select which they considered to have the greatest impact on student achievement. The categories were: teacher sensitivity, teacher experience, teacher educational level, teacher feedback, or teacher content knowledge. All four teachers in this study considered teacher sensitivity to have the greatest impact on student achievement. The feedback comments, classified by feedback levels, are listed in Table 3.

Table 3

Teachers Perceptions Of Specific Feedback Provided During Large Group

Comments to Students	Feedback Level
1. Authentic, verbal praise for student work/comments	FT
2. Constructive remarks to students' work/comments	FP
3. Informing students of goal of current work/assignment	FT
4. Encourage students to monitor the accuracy of their own progress/work/comments	FR
5. Utilizing prior knowledge to stimulate new learning	FP
6. Guiding students to reflect on their learning	FR
7. Comments to assist students to improve or correct their thinking/performance	FP
8. Responses to challenge students' thinking	FP

FT=Feedback Task

FR=Feedback about Self-regulation

FP-Feedback about the Process

Note: FS (Feedback about the Self) was included as it is not considered one of the most effective forms of feedback

Teachers' perceptions about how they provide feedback often do not match reality and yet their perceptions influence their instructional strategies and student motivation. Therefore, participants were asked how often they provide specific feedback during whole group instruction on a daily basis. Teachers W, Y and Z perceived themselves to frequently give all types of feedback levels listed on the questionnaire (Table 1). Teacher X did not respond to the statement on informing students of the goal of the current work/assignment. It is not known if this question was overlooked, if the teacher did not understand the question, or if the teacher did not wish to respond to the question. However, Teacher X perceived herself to provide the other six feedback levels on a frequent basis. The next section compares the observed feedback provided by participants to their perceptions of how they provide these levels of feedback.

Authentic, Verbal Praise

The participants in this study perceived themselves to provide authentic, verbal praise (FT) for student work or student comments on a frequent basis. Results from this study revealed the majority of verbal praise at the FT level observed by all four participants was mostly to inform students their response was correct and an occasional or cursory comment of praise was attached to the end of the feedback. This however is not considered authentic praise. Authentic praise addresses the knowledge or skill(s) the student used to arrive at the correct response. Marzano, Pickering and Pollock (2001) stated the best feedback should be criterion reference in that “it should reference a specific level of skill or knowledge” (p. 98) as shown on Lines 2 and 17 in the examples below.

Teacher W, Observation 3, Line 2

- T Before we talk about our topic this week let’s go back and do a word family.
What are the two things we know about a word family? (1)
C They rhyme and they sound the same at the end
T They sound the same at the end, very good (2)

Teacher W, Observation 3, Line 18

- T Do you think that is a real or a nonsense word? (14)
C Nonsense
T Let’s think of our real words. _____? (15)
C Mock
T We’re doing –ot (16)
C Dot
T Dot. Good word. What’s the beginning sound in dot? (17)
C D
T Good. Everyone say d (18)

Teachers were observed to provide frequent FT, however most of their feedback was not authentic praise for students’ work or their comments. It is noteworthy to mention that although very little authentic praise was provided, the teachers in this study did give some perfunctory or fleeting praise to students as shown in the example below from an observation of Teacher W.

Teacher W, Observation 1, Line 55

- T 29th. What does it look like? (53)
C 29th
T 2-9. We have two tens and... (54)
C Nine ones
T Nine ones, good. (55)

Line 55, repeating the answer (*nine ones*) to indicate correctness is feedback about the task (FT), and a cursory verbal praise (*good*), although not considered authentic, was added.

Teacher W, had a total of 137 verbalizations in Observation 1, of which 44 were FT comments. Thirty-three of the 44 FT comments were a repeat of the students' response: *good*, *very good* or *alright* as shown in the excerpts above. Other examples of verbal praise, although not authentic praise, are described below.

Teacher W, Observation 2, Line 53

- T Does that mean he has one or more than one (51)
C More than one
T So his antlers are singular or plural (52)
C Plural
T Plural, good (53)

Teacher W, Observation 2, Line 64

- T how many tails did he have? (62)
C one
T singular or plural (63)
C singular.
T singular, good. (64)

Teacher W, Observation 2, Lines 80

- T So we have antlers, ears, eyes, nose, tail, hooves...what are all these kids? (79)
C body
T body. Good (80)

Teacher W, Observation 2, Line 103

- T How many ears does he have? (100)
C 2
T 2, so does that mean its plural? (101)
C yes
T so what if it does not have an s (102)
C singular
T singular. Very good (103)

Having the correct information (FT) is important as it is the foundation of processing and self-regulation (Hattie & Timperley, 2007), however, FT is more powerful when it is for the students' perseverance, improvement or to acknowledge the students' use of strategies (Dweck, 2007) which is best provided when feedback is focused on "specific types of knowledge and skill" (Marzano, Pickering and Pollock, 2001, p. 98).

Constructive Remarks

When teachers go beyond informing students of the correctness or incorrectness of their work, constructive FP comments informing students they are on task assures they are going in the right direction to accomplish the instructional goal. There were 116 teacher verbalizations in Observation 1 for Teacher X yet there was only one instance of the teacher providing constructive remarks (FP) on students' comments. In the following example, Teacher X, Line 38, went beyond saying, *good* or *correct* to recognizing the child included the letter *a* in their name. In Line 39 she guided the student in recognizing lower case *a* and upper case *A*, Line 41, Teacher X informed the child they had written the letter to her specifications. In the remainder of this discourse, the teacher assisted the students in recognizing the difference in the upper-case and the lower-case letters.

Teacher X, Observation 1, Lines 38-44

Teacher went around the room and called names of those writing the letter A correctly.

T Oh I see an a in your name (38)

T You need to put an A here. Capital or lower case? Ok so there's a Capital a and a (39)

C a

T Lower case a. (40)

T Oh I like you're a (41)

T That's a capital A. (42)

T I see lots of good looking As. Which one is the capital letter? (43)

C The big one

T The big one. Which one is the lower case a? (44)

C the little one... the small one the bottom one.

Informing Students of Goal

Although it is important for students to know how they are performing on a task (FT), it is equally important that they know where they are going in relationship to a task (FT).

Informing students of the goal of the task prepares them to process information while completing the task. Only in one of the four observations did Teacher Z inform students of the goal of the current work or assignment at the beginning of the class.

Teacher Z, Observation 3, Lines 6-8

T Alright listen up. We're gonna play the same game we did yesterday. So we're gonna have 3 dice. You have to add the numbers together. Do we throw them at anybody? (6)

C no

T No. So, you toss all three. Then you have to count them. And we're going to have to decide if we agree or disagree with you when we write it on our board. Remember, if you have people who disagree with you, you're going to have to pick one and they're going to have to tell you why they disagree with you, okay? Remember, if you cannot remember how to write a number, where do you go? (7)

C Up there

T Up there. It's got all the numbers written and you can count down till you find the number, okay? _____remember, stay on your bottom out of the circle so she can see. (8)

One of the goals of the above assignment was to correctly count the number of dots on the die. The second goal was to write the number of the dots correctly on the board. The last sentence in Line 7 was a question by the teacher about where students can find out how to write numbers correctly. A child replied, *up there* while looking at the numbers posted on the wall. It is possible someone not in this child's line of vision may not have known or remembered where to look to see how to write numbers correctly. Although the teacher informed students of the goal, it is just as important to ensure instructions are given to ensure some degree of success in accomplishing the goal.

Encourage Students to Monitor the Accuracy

Feedback about the process (FP) or feedback about self-regulation (FR) guides students as they monitor the accuracy of their progress on the task. The following examples were taken from observations of Teacher Y. Although she did not exactly encourage students to monitor the accuracy of their comments in Observation 1, she did prompt students to do so.

Teacher Y, Observation 1, Lines 7-11

- T Alight what month is this? (7)
C January
T Nope. It's not January. What month are we in? (8)
C Monday
T Monday is a day of the week. Month. January, February, March, April, May, June, July, August, September, December. What month are we in? (9)
C Christmas
T That's next month (10)
C Monday
T We are in the month of November. Remember Thanksgiving happens in November and we know that the first of the month was on a Tuesday (11)

In Observation 2, Lines 8-25, Teacher Y encouraged students to monitor the accuracy of their comments.

- T Can we put 28 in this ten-frame? (8)
C Yes
T Can we? (9)
C Yes, No
T Raise your hand if you think we can put 28 in this ten-frame. OK. Hands down. Raise your hand if you think we can put if we cannot put 28 in this ten-frame. OK hands down. Let's try it. Here we go 1 (10)
T&C 2, 3, 4, 5, 6, 7, 8, 9, 10 (11)
T How many are in one ten frame? (12)
C 10
T 10. We know that so we're gonna write a 10 out here. We already have 10; do I have to start over at 1 or can I say 10 (13)
14T&C 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 (14)
C We can't
T What happened? What happened? (15)
C You stopped
T Well, why did I stop? (16)
C Because there isn't no more room
T There's not another... (17)
C 10
T Ten frame. If I put another frame down here can I put 8 more (18)

C Yeah
 T I could. So in 28 there are 2 sets of (19)
 C 10
 T 10 and (20)
 C 7 dots
 T 8 more. I would have to have another 10 frame over here and I would have to add 8 more to it (21)
 22T 1 (21)
 23T&C 2, 3, 4, 5, 6, 7, 8 (23)
 T And then I'll have 8 from here so I have 10-20-8. So I would need another 10 frame to put my 28 in a 10 frame wouldn't I? (24)
 C Yeah
 T Ok. We've learned it. Two ten frames make 20. (25)

Teacher Y gave students a word and they were to think of a word that rhymes with the given word. In this example, the teacher calls on a child to rhyme the word drop.

Teacher Y, Observation 3, Lines 110-114

T ___your word is drop (110)
 C Drip
 T Drop. No drop has the same beginning sound and the same ending sound but I want something with the same ending sound as op (111)
 T If you go to Walmart you go to (112)
 C shop
 T shop. Say shop. (113)
 C Shop
 T Drop (114)
 C Drop

Utilizing Prior Knowledge

In the next examples, Teacher W and Teacher X provided more feedback to students that utilized prior knowledge (FP) to stimulate new learning.

Teacher W, Observation 4, Lines 1-7

T Alright, we are working on learning how to... (1)
 C pictures, count
 T count what? (2)
 C by dominoes
 T we have used dominoes (3)
 C by adding
 T say it louder_____ (4)
 C putting them together
 T what are we putting together? (5)
 C number words...numbers...making a bigger number

- T we're putting numbers together to make a bigger number. There's a name for that (6)
- C adding
- T&C adding (7)
- Teacher X, Observation 2, Lines 98-100
- T We're going to write a sentence about a cat. What do you know about a cat (98)
- C it's black
- T A cat is black. So I start with a capital letter, a cat is black. Now if I forget how to spell my color words where can I look? (99)
- C the alphabet wall
- T The alphabet wall (100)

Guiding Students to Reflect

Few examples were observed of teachers guiding their students to reflect on their learning (FP, FR). Teacher W and Teacher X provided more of these opportunities than Teachers Y and Z.

- Teacher W, Observation 4, Lines 8-23
- T we've been working on adding. When we add, we put 2 numbers together to make a bigger number. Now, what have we used so far to add? (8)
- C dominoes
- T We've used our dominoes (9)
- C numbers
- T we've used our numbers. _____? (10)
- C counting marks
- T yeah, we could, we haven't... (11)
- Several children make suggestions
- T excuse me. _____ said counting marks. We haven't used counting marks yet but we could. _____ what else have we used to add? (12)
- C silence
- T _____ can you help her? (13)
- C the plus
- T We have the plus sign, that is correct. That's when we write the e... (14)
- T&C equation (15)
- T equation (16)
- T _____ what else can we use when we add? (17)
- C toothpicks
- T we used the toothpicks when we played 1-2-3-4 (18)
- T alright, _____ what else did we use to help us add? (19)
- C equal sign
- T we have to use the equal sign for our equation, ok. _____ what other tools have we used? (20)
- C we use that to mean to make a bigger one

T yes, that's when we add (21)
 T What's the tool you have with you every day? (22)
 C Hands
 T your fingers. Do you use them? (23)
 C yes

Teacher X, Observation 2, Lines 141-142

T if they have 3 sides we know they are a... (141)
 C triangle
 T Triangle (142)

Comments to Assist Students

Teachers can assist students to improve or correct their thinking or performance through FT, FP or FR and it is much more effective when all three are used in the feedback exchange.

Teacher X used both FT and FP in the next two examples.

Teacher X, Observation 1, Lines 9-10

T You think it's about summer? Well now is summer a weather or is summer a season? (9)
 C Season
 T Season. Ok so let's think about what our weather is going to be about in a few seconds ok. So we're going to say our I Can Statements. We're going to sing your choice of our abc song ok and we're going to write some letters words and sentences and we're going to read our story and review what we learn. (10)

Teacher X, Observation 2, Lines 135-152

T How is a triangle different from a rectangle_____? (135)
 C They have a shape
 T can you tell me a little more? (136)
 C they are not the same
 T right, they are not the same. how are they different? (137)
 C some of them are little and some of them are big
 T some are little and some are big are they different in other ways (138)
 C yeah
 T how are they different (139)
 C some of them are turned different ways

Teacher X, Observation 2, Lines 149-152

T what does he say about the fish (149)
 C the cat likes fish
 T the cat likes fish...why is it important to know the cat like fish (150)
 C the cat likes fish a lot
 T and why does that matter? (151)

- C the cat likes mice
 T Oh so if the cat likes mice and she can't find them she might eat the fish instead of the mice? (152)
 C the cat might eat the fish

Responses to Challenge Students' Thinking

FT, FP, and FR can also be more effective when used together to challenge students' thinking. Teacher W combined FT and FP in Observation 1, Lines 48-50, but did not combine feedback levels in that same observation for lines 90-101. It takes more time to help students arrive at the answer when on FT is given as in this same observation but lines 90-101.

Teacher W, Observation 1, Lines 48-50

- T _____ what will tomorrow be if today is Tuesday? (48)
 C Saturday, Monday, Wednesday
 T _____, thank you for raising your hand. (49)
 C Wednesday
 T Wednesday. Capital W-e-d-n-e-s-d-a-y (50)

Teacher W, Observation 1, Lines 90-101

- T Alright. Today we are going to build the number (90)
 C 29
 T Alright today we're building twenty... (91)
 C 9
 T 9. How many groups of ten do we need? (92)
 C 10... 9
 T How many groups of ten do we need? (93)
 C Ten ones...2
 T How many are already there? (94)
 C 1
 T Alright how many are there? (95)
 C 2
 T 2. So 10, 20 how many over here? (96)
 C 9
 T So 1-2-3-4-5-6-7-8-9 (97)
 T Alright, we got them all in so 1-2-3-4-5-6-7-8 and 9. How many groups of 10 do we have? (98)
 C 2
 T How many ones? (99)
 C 9
 T What does that make? (100)
 C 9
 T 29 okay (101)

Once again, examples show children arrive at the answer sooner when 2 or 3 feedback levels are combined as shown below.

Teacher X, Observation 1, Lines 52-55

- T What do you think is going on outside? What do you see? (52)
C Smoke
T Maybe smoke, what color are the clouds? (53)
C Blue. They're black
T They're black. So what happens when the clouds get very dark? (54)
C A storm is coming
T That's right. Usually when the clouds are getting dark that means what (55)
C A storm is coming

Teacher X, Observation 2, Lines 119-126

- T Why is the mouse running from the cat? (119)
C I don't know
T What are the mice doing_____? (120)
C running from the cat
T They are running from the cat. I don't see a cat, __ . How do you know that? (121)
C Because it's on the page
T The words told you that didn't they? (122)

Teacher continues to read

- T What does he want the other mice to do_____? (123)
C He wants them to help find an escape
T He wants them to find an escape? (124)
T why do you think he wants to escape_____(125)
C because he wants to get away from the cat
T let's see (126)

Perceptions of effective teachers providing frequent feedback to kindergarten students at the FT, FP, and FR did not match the observed feedback in this study. Participants perceived themselves to give frequent feedback at three of the four feedback levels identified by Hattie and Timperley (2007). Although feedback at all levels were observed, the feedback was infrequent, inconsistent and at low levels of effectiveness. The next section reports the results of the second research question of what levels of feedback do effective teachers, as identified by TEAM scores give to children in kindergarten classrooms.

Observed Levels of Teacher Feedback

The following table describes each participant's total observed verbalizations and observed verbalizations identified as FT, FP, FR, and FS. Results and examples of the collected data for each feedback level was described in detail.

Table 4

Frequency Of Observed Teacher Feedback Levels

	Feedback Type	ELA Ob 1	ELA Ob 2	Math Ob 3	Math Ob 4	Total Feedback Responses	Total Teacher Verbalizations
Teacher W	FT	58	74	60	87	279	647
	FP	19	8	8	24	59	
	FR	9	12	1	15	37	
	FS	0	2	1	1	4	
Teacher X	FT	40	65	42	36	183	464
	FP	0	28	3	3	34	
	FR	7	7	1	2	17	
	FS	4	3	0	0	7	
Teacher Y	FT	17	54	22	50	143	358
	FP	3	19	5	17	44	
	FR	3	7	8	5	23	
	FS	0	9	0	7	16	
Teacher Z	FT	74	99	32	12	217	547
	FP	7	10	6	5	28	
	FR	15	13	10	3	41	
	FS	2	9	7	0	18	

Feedback Task

Feedback is defined as any verbal or written communications provided by a teacher to students during or after a task. The importance of feedback at the task level is it informs students of the correctness or incorrectness of their answer or provides directions for the task. Feedback task is the most commonly used feedback in classrooms, and according to the authors, approximately 90% of teachers' feedback is aimed at this level (Hattie & Timperley, 2007). Teacher W provided a total of 647 verbalizations during this study but only provided feedback 279 times (43%) at the FT level. There were 464 verbalizations by Teacher X with 183 (39%) comments at the FT level. Teacher Y responded total of 358 times yet only 143 (40%) comments were FT responses. A total of 547 verbalizations were given by Teacher Z with 217 of those at the FT level. There were numerous missed opportunities by teachers in this study to provide feedback or even acknowledge a student's question or response. Additionally, several of the total verbalizations were addressing disciplinary issues resulting in less time spent on the task therefore many of the verbalizations observed were not counted as feedback.

Feedback at the task level can be a simple acknowledgement of the correctness or incorrectness of a child's response (yes, no, right, alright, ok, or good as in good answer). Additionally, simply repeating the student's response indicates correctness. Examples of these responses can be found in Observation Z1, line 48T (No); Observation Y3, line 19T (yeah); Observation Y2, line 7T (good); and Observation X2, line 70T where the teacher responded "R" when students correctly stated the first sound in the word rug. However, teachers could provide more powerful feedback if their FT led to feedback loops where FP and FR are included.

Hattie and Timperley (2007) found feedback to be most effective when students simultaneously receive information about a task (feedback task), provide strategies on how to do

the task more effectively (feedback process), prompt students to use internal assists (feedback regulation) and end the loop with another feedback task comment. There were no examples of this full feedback loop found among any of the observations but partial feedback loops were observed.

Several instances where FT combined with FS or FR were observed in this study. Line 71 on Observation W1 combined FT (29) with FP (*what now*). In this observation, teacher W used a ten frame to show two groups of tens and 9 ones and asked the students to say the number. They responded 29 and the teacher replied 29 which was FT indicating correctness. Teacher W immediately asked the students what was the next step in the process for completing the task (FP). In another observation, Y4, Line 71, teacher Y responded at the FT level (*yes, good*) and the FS level (*good job*). In Observation W4, line 34, teacher W provided feedback at the FT level (*no*) and the FR level (*do you not remember?*) On Line 56 of the same observation, the teacher responded again at the FT level (*yes*) and at the FR level (*think in your brain*).

FT is often referred to as knowledge of results or corrective feedback and although a remark as simple as *ok* is considered FT, in the absence of such a response, students may question their response or create faulty strategies to complete the assigned task. Another issue surrounding these types of FT responses is it gives absolutely no information about how the student is performing. FP is more effective in helping students focus on the process involved in accomplishing a task.

Feedback Process

Feedback at the process level (FP) provides strategies and cues to assist or scaffold students as they process information to complete a task. This level of feedback is more effective than FT as it goes beyond informing students of the correctness or incorrectness of the task but

guides students to arrive at the answer on their own. During Observation X2, Line 158T, teacher X asked, *What was Fred's idea* to which a student responded, *to make the mice bigger*. Rather than responding to the correctness or incorrectness of the answer at the FT level, the teacher asked a FP level question, *Why would they do that* and the student replied correctly, *to scare the cat*. The teacher guided the student to think about what was going on in the story to arrive at the answer.

On Line 135 during the same observation, X2, teacher X asked the students how a triangle differs from a rectangle. The teacher guided the students through several feedback loops at the FP level to arrive at the answer on their own. The teacher's responses included *can you tell me a little more* (Line 136); *right, they are not the same, how are they different* (Line 137); *some are little and some are big, are they different in other ways* (Line 138); *how are they different* (Line 139); *some of them are turned different ways but are they still the same* (line 140); *and finally, if they have three sides we know they are a...* (Line 141) to which the students responded *triangle*. The teacher followed up at the FT level by repeating *triangle* indicating the answer was correct. Guiding students through such a series of feedback loops to arrive at the correct answer without giving them the answer is helpful in building their confidence at the FR level.

Feedback Self-Regulation

According to Hattie and Timperley, feedback at the self-regulation (FR) level is more effective in mastering skills than the other feedback levels. It takes more effort for students to accomplish the task when they are required to use internal assists rather than external cues and other supports from the teacher. On Observation Z1, Line 96, teacher Z encouraged students to put some thought into their answer before responding by stating, *remember we are not at the*

sharks. Additionally, when students are encouraged to express what they think or how they feel, as in the FR level, it can enhance their self-esteem. On Line 105 of Observation Z1 teacher asks students what they think will happen. As each student responds, they are given opportunities to build their confidence in completing the task.

When feedback is provided at both the FP and FR level it is very powerful in developing deep learning and mastery. On Observation W3, the class was learning ending sounds. On Line 32, teacher W asked, *does it end in ot* (FP) immediately followed by *what did you have for lunch* (FR). Providing cues of the ending word (FP) and asking students to regulate their thinking (FR) about what they had for lunch (tater tots) is more effective than asking at either level alone.

Feedback Self

The most ineffective type of feedback is feedback directed at the self and is often repeated several times throughout the day. This level of feedback tends to be evaluative (either positive or negative) and often contains very little information related to the task. Additionally, it does not encourage students to be more engaged or to even understand the task. Examples of this level include feedback from teacher Y in Observation Y4, Lines 50 and 64, *good girl*; lines 56, 87, and 97, *good job*.

The role of the teacher is to guide students through their zone of proximal development in order to master new knowledge and skills. Teachers can better support students' learning when they understand the power of effective feedback to help deliver instruction effectively. Although it is important for students to know when they are correct or incorrect (FT), that level alone does not provide enough guidance to students to be effective. Findings indicate FT was the most frequently used feedback level among the effective kindergarten teachers in this research.

The least effective feedback level according to Hattie and Timperley (2007) is at the self level and the findings of this study indicate FS is the least frequently used feedback level by kindergarten teachers. Teacher W had a total of 647 verbalizations and four of them were at the FS level. Teacher X, with 468 verbalizations used FS a total of seven times. Teacher Y responded 16 times out of 358 verbalizations at the FS level and teacher Z responded 18 times at the FS level out of a total of 547 verbalizations. FS was the least frequently used feedback among the effective kindergarten teachers in this research.

Effective TEAM Teachers and Levels of Feedback

The research question was what levels of feedback do effective teachers, as identified by TEAM scores, give to children in kindergarten classrooms? Tennessee Department of Education conducts yearly teacher evaluations based on a set of criteria designed to measure teacher effectiveness on a level of 1-significantly below expectations, 2-at expectations, and 3-significantly above expectations (Tennessee Department of Education, 2017). All four teachers in this study received effectiveness ratings within the Meets Expectations range of the TEAM. The TEAM scores of the teachers in this study are as follows: Teacher W-3.69; Teacher X-3.78; Teacher Y-3.66 and Teacher Z-3.17. The amount of feedback provided by each of these effective teachers are listed in Table 5 and is followed by an analysis of their feedback.

Teacher W

Table 5

Frequency Of Feedback Observed At Each Of The Four Feedback Levels By Teacher W

Feedback Level	ELA Observation 1	ELA Observation 2	MATH Observation 1	Math Observation 2	TOTALS
FT	58	74	60	87	279
FP	19	8	8	24	59
FR	9	12	1	15	37
FS	0	2	1	1	4

Teacher W received a TEAM score of 3.69 for the 2015-2016 school year. The range of scores for TEAM is 1-5 with 1 indicative of significantly below expectations and 5 significantly above expectations. A score of 3 is determined to be an effective teacher (Tennessee Department of Education, 2017). According to Hattie and Timperley (2007), the most common level of feedback provided by teachers is FT and it is related to task accomplishment. Teacher W provided more FT than any other level of feedback to kindergarten students. This teacher had a total of 363 verbalizations in the two Math observations and 147 (40%) of those verbalizations consisted of feedback given at the FT level. Teacher W had a total of 284 verbalizations for the two ELA observations and 132 (46%) were at the FT level. The questions asked by this teacher were overwhelmingly aimed at the FT level which affirms Hattie and Timperley's (2007) finding that approximately 90% of teachers' questions are targeted at the FT level. However, when students responded, the teacher did not always reply with a FT level response. Whereas it is important for students to know that they are on task, it is also important that the feedback focuses on assisting the student with understanding the process surrounding the task.

The next level of feedback frequently provided by teacher W was FP. During Math Observation 1, the teacher responded eight times at the FP level. There were many opportunities the teacher could have provided FP during a numbers drill. At the beginning of the class, the teacher had a stack of cards with numbers on them. The teacher held up a card so all could see, said the number out loud, and the children repeated the number after the teacher. This took about ten minutes of merely repeating numbers. The teacher did not give any feedback during the exercise. Afterwards, the teacher led the students in repeating *I can* statements but again, no feedback was given after the students made the statements. There were statements made regarding behavioral issues and a lot of repetition during this observation. The first FP statement was made when the teacher asked what they were preparing to do next. The response was the *date* and the teacher asked what kind of date (FP) to which students responded, *digital date*. The next FP response was a question designed to help students process what they knew about the order of days of the week. They were asked what day it is. There were incorrect responses and the teacher asked a FP question, *What will tomorrow be if today is Tuesday?* An opportunity for an effective feedback loop could have occurred in the following transcription where a FP question was asked in 57 and repeated again in 58 and a new FP asked in 59 followed by a FT statement.

Teacher W, Observation 1, Lines 56-64.

- T Is it even or odd? (56)
C Even-no, odd
T What does it end with? (57)
C Odd
T What does it end with? (58)
C 9
T 1, 3, 5, 7, 9 makes it... (59)
C Odd
T Odd, good. Our number's name is (60)
C 9
T 29 (61)

C Spell it
 T I'm going to spell it. There's the word twenty, we know that. Oh and we also know the word nine. Twenty-nine. Okay. Our number's name is... (62)
 T&C Twenty-nine (63)
 T Good (64)

Additionally, even after informing the students that the teacher would spell the number, the teacher did not spell it nor prompt students to spell it either.

The least effective level of feedback is FS as it provides very little information about the task and does not inform students where they are in the process. Teacher W gave less FS to students than any of the other teachers.

Teacher X

Table 6

Frequency Of Feedback Given At Each Of The Four Feedback Levels By Teacher X

Feedback Level	ELA Observation 1	ELA Observation 2	MATH Observation 1	Math Observation 2	TOTALS
FT	40	65	42	36	183
FP	0	28	3	3	34
FR	7	7	1	2	17
FS	4	3	0	0	22

Teacher X had a TEAM score of 3.78. Teacher X provided no FP in one of the ELA observations and only 3 FP in each of the Math observations. This teacher provided less FR than any of the other teachers in this study. FR is an important strategy to help challenge successful students by guiding them to internalize the learning. Below is a transcription of teacher X's FS comments on ELA Observation X1 made after children sang and performed motions to the alphabet song played on a CD:

- T Alright excellent job guys. Kiss your brain. Everyone say you're so smart (18)
 C You're so smart.
 T Tell your neighbor you're so smart (19)
 C You're so smart
 T Now we just got through singing about our letters so we should know them. (20)

In Observation ELA X2 the teacher remarked, *That is so sweet*. FS does not include any information that will help students improve their work, it is not specific to the task, and it is personal feedback about the student. There were not any new children, special needs children or children with disabilities in this classroom which may have had some relevance to amount of FS given. However, this teacher did give the second highest amount of FT which indicates the teacher is at least informing students of the correctness or incorrectness on tasks.

Teacher Y

Table 7

Frequency Of Feedback Given At Each Of The Four Feedback Levels By Teacher Y

Feedback Level	ELA Observation 1	ELA Observation 2	MATH Observation 1	Math Observation 2	TOTALS
FT	17	54	15	50	46
FP	3	19	5	17	79
FR	3	7	8	5	127
FS	0	9	0	7	106

Teacher Y had a TEAM score of 3.66 and Teacher Z had a TEAM score of 3.17. Both teachers had significantly more FS (least effective level of feedback) than Teacher W and X. Additionally, Teacher Y addressed more behavioral or potential behavioral issues than the other teachers as observed in Observation Y1: Line 21, *sit up, please*; Line 31, *Alright, I'm about to turn around and do a quick check. Ready? Quick check. Quick check. Fix yourself right now*. It should be noted that three teachers, including teacher Y had 17 students, one teacher had 18 students, and teacher Y was the only teacher with children with disabilities. None of the other

teachers had children with special needs while teacher Y had 5 enrolled in her classroom. There were also missed opportunities for feedback loops such as when the teacher asked if the students watched the parade (Line 4) but told about her experience and did not give the students an opportunity to comment: Line 6, *we've shared now we are done*. The teacher did not offer or give children an opportunity to respond to the experience she related about the parade she observed. There was not a smooth transition from Line 6T to what happened next:

Teacher Y, Observation 1, Lines 7-17

T Alight what month is this? (7)

C January

T Nope. It's not January. What month are we in? (8)

C Monday

T Monday is a day of the week. Month. January, February, March, April, May, June, July, August, September, December. What month are we in? (9)

C Christmas

T That's next month (10)

C Monday

T We are in the month of November. Remember Thanksgiving happens in November and we know that the first of the month was on a Tuesday. So let's count...1 (11)

12&C 2, 3, 4, 5 (some children count out of order after 5) (12)

T Count with us please...5 (13)

T&C 6, 7, 8, 9, 10, 11, 12, 13, 14 (some children count out of order after 14) (14)

T Could you count with us please? ...13 (15)

16&C 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 (16)

T And that is today. (17)

Although some FP was provided, especially in Observation ELA Y3, more FP is needed to help students connect the learning to their work by focusing on specifics about the task. However, considering the challenges of the students, without an aide or another teacher in the classroom it may be more difficult for this teacher to provide more effective feedback.

Teacher Z

Table 8

Frequency Of Feedback Given At Each Of The Four Feedback Levels By Teacher Z

Feedback Level	ELA Observation 1	ELA Observation 2	MATH Observation 1	Math Observation 2	TOTALS
FT	74	99	32	12	217
FP	7	10	6	5	28
FR	15	13	10	3	41
FS	2	9	7	0	18

Teacher Z had a TEAM score of 3.17 and gave more FS than the other three teachers in the study. This teacher has been teaching longer than the other teachers and has a Bachelor's degree in Elementary Education. These two factors may influence the teaching practices of Teacher Z such as providing more FS than the other teachers. Additionally, the other teachers had a TEAM score above 3.50 moving whereas this teacher's TEAM score was closer to the 3.0 mark. The teacher's strength was in guiding students using FR. Examples include the teaching asking students to think before answering and to challenge their responses by having them think again.

Conclusion

The results of this study provided information on kindergarten teachers' perceptions of the greatest impact on student achievement and the levels of feedback teachers give most and least frequently to their kindergarten students. First, the key findings will address teacher perceptions followed by a discussion of levels of feedback most frequently and least frequently used by effective teachers participating in this study.

Teachers' Perceptions

Teachers' responses indicated they perceive teacher sensitivity to have the greatest impact on student achievement. Despite the importance they stated on teacher sensitivity, it is not clear from the questionnaire how they personally define teacher sensitivity. If their intended definition includes being sensitive to the feelings and needs of students then there were several incidences where lack of teacher sensitivity was exemplified.

The participants were also asked about their perceptions of providing specific levels of feedback to students. Their responses indicated they frequently provide all the levels of feedback on a daily basis yet observations reveal the most effective levels of feedback were not provided frequently or with fidelity. The following sections are the key findings of observed teacher feedback found in this study.

Levels of Feedback

Feedback Task. If feedback does not lead to reducing the gap between students' current understanding and the goal of the task, students will likely reduce their effort and engagement (Hattie & Timperley 2007). Effective feedback about the task provides students with more information about what they do and do not understand about the task. Teacher Z gave more task feedback during the ELA observations than the other three teachers, however, almost all the feedback given by this teacher was merely indicated correctness by repeating answers given by students. In ELA Observation Z1, Teacher Z provided feedback about the task 74 times but 41 times (55 percent) the feedback consisted of one word repeating the students' answers. The feedback given did not provide opportunities for students to expend further effort for engagement nor did it provide any new information, clarification, or encouragement for continued participation. Additionally, thirteen of the 79 responses, although related to the task,

were disciplinary in nature, reminders of the rule to raise their hands or request to give a thumbs-up or thumbs down. Again, although the teacher's response was considered feedback, it did not provide sufficient information or confirmation about the students' response to the task. Effective task feedback provides information "...relative to a task or performance goal, often in relation to some expected standard, to prior performance, and/or to success or failure on a specific part of the task" (Hattie & Timperley, 2007, p. 92). Although this effective teacher provided more FT, the feedback was often a meagre acknowledgement of correctness or incorrectness and not related to achieving success on essential aspects of the goal which included ensuring understanding.

Feedback Process. Feedback on this level can promote cooperation, engagement, and persistence as teachers challenge students with feedback that requires them to process. Teacher W provided more process feedback than the other teachers in this study, yet out of 226 teacher verbalizations in Math Observation W4, this teacher only provided FP 24 times. Even though there was a small amount of FP, the feedback was effective and encouraged students to access prior knowledge as exemplified in the feedback loop below.

Teacher W, Observation 4, Lines 1-25

- T Alright, we are working on learning how to... (1)
C pictures, count
T count what? (2)
C by dominoes
T we have used dominoes (3)
C by adding
T say it louder_____ (4)
C putting them together
T what are we putting together? (5)
C number words...numbers...making a bigger number
T we're putting numbers together to make a bigger number. There's a name for that (6)
C adding
T&C adding (7)

T we've been working on adding. When we add, we put 2 numbers together to make a bigger number. Now, what have we used so far to add? (8)

C dominoes

T We've used our dominoes (9)

C numbers

T we've used our numbers._____? (10)

C counting marks

T yeah, we could, we haven't... (11)

Several children make suggestions

T excuse me! _____said counting marks. We haven't used counting marks yet but we could._____ what else have we used to add? (12)

C silence

T _____can you help her? (13)

C the plus

T We have the plus sign, that is correct. That's when we write the e... (14)

T&C quation (15)

T equation (16)

T _____ what else can we use when we add? (17)

C toothpicks

T we used the toothpicks when we played 1-2-3-4 (18)

T alright,_____ what else did we use to help us add? (19)

C equal sign

T we have to use the equal sign for our equation, ok._____, what other tools have we used? (20)

C we use that to mean to make a bigger one

T yes, that's when we add (21)

T What's the tool you have with you every day? (22)

C Hands

T your fingers. Do you use them? (23)

C yes

T Ok. Today, we are going to use this tool (24)

C dominoes...they're dice

T They're dice. Big dice. A dice has 6 sides (25)

Effective feedback provides information about progress or how to proceed with the task or both (Hattie & Timperley, 2007). In the above dialog, Teacher W reminded students what they have been working on, guided their memory as to how they have been working on the task and presented the goal which was to learn math using dominoes. According to Black and Wiliam (1998), when teachers provide challenging assignments and extensive feedback, it can

lead to “greater student engagement and higher achievement” (p. 13). This effective teacher effectively used FP with her kindergarten students.

Feedback Self-Regulation. According to Hattie & Timperley (2007), feedback is powerful when teachers provide information that specifically leads to greater learning opportunities. This can be accomplished through enhanced challenges about the task, greater fluency and automaticity, and deeper understanding. Providing more self-regulation over the learning process is an effective way of extending these opportunities Hattie & Timperley, 2007). Teacher Z provided more FR than the other effective teachers in this study. This teacher provided more FR in ELA Observation 1 than any of the other observations by this teacher. Below are several examples from one observation of how effectively Teacher Z guided students to put some thought into their responses in Observation 1.

- T You have to wait and listen to what the question is (11)
T Let’s think about it. What is another big word to draw (46)
T The bears? You think bears can draw pictures? (81)
C No, Indians
T Indians? Why do you think Indians? (82)
C Because
T Hold on. Why do you think Indians. I’m not saying you’re wrong I don’t know. We have to see. (83)
C I read that
T You read the book. Umm, you’re using prior knowledge. (84)
T So do you think he knows how to catch a fish like a bear? (103)
C No
T Why? (104)
C Because he was not always a bear.
T Bear. So what do you think will happen? (105)
C Turn into a bear
T Well, he’s already turned into a bear. What do you think is going to happen? (106)
C Turn back into a human
T Think he’s going to turn back into a human? (107)
C Yeah
T What do you think_____? (108)
C Me too. I do too
T Alright, so the main thing is he’s going to turn into a human. Do we agree? (109)

- C Yeah
 T Thumbs up. Thumbs down, Shrug (110)
 T Ok. Give me a thumbs-up or thumbs down whether or not you like the book. (120)
 T Ok hands-down. Were we correct? (121)
 C Yes
 T What were we correct about? (122)

Effective teacher feedback helps students “gauge what they can do and what they still need to learn. Then through self-regulation they can make decisions about where to expend their efforts accordingly” (Brookhart, 2011, p. 31). Teacher Z effectively made use of FR to guide students in thinking, remembering and making assumptions about the task which leads to deeper understanding.

Feedback Self. Feedback about the self is personal feedback about the student, provides little information about task performance, rarely leads to more engagement, commitment to the goals of the task or enhanced self-efficacy (Hattie & Timperley, 2007). However, FS can have an impact on learning in students who have low self-efficacy and the FS leads to increased engagement or effort toward the learning goal and not toward the self (Hattie & Timperley, 2007). Teacher Y provided the second most FS to kindergarten students. Teacher Z had 18 FS statements whereas Teacher Y had 16. This may not be unusual considering Teacher Y had five children with disabilities in the classroom whereas none of the other teachers had any. This teacher made 9 FS comments in one ELA observation and none in the other. She also made 7 FS statements in one Math observation and none in the other. Teacher Y said, *good job* or *great job* a total of 15 times and *wow* once during the 4 observations. Teacher X provided no FS in either of the two Math observations, 4 FS in the first ELA observation and 3 FS in the second ELA observation. The least amount of FS was provided by Teacher W who provided a total of 4 FS in the four observations combined (0 in ELA observation 1; 2 in ELA Observation 2 [*awesome*])

both times; 1 in Math Observation 1 (*very nice*) and 1 in Math Observation 2 (*good girl*). Teacher Y provided four times as much FS as Teacher W and four and a half times more than teacher Z. According to Brookhart (2011), feedback should not be about the student personally but should be about the task only. All four teachers provided less FS than any other of the feedback levels.

Summary

Several researchers have reported the most powerful effect on student learning is the teacher and the most strategy teachers can utilize to increase student achievement is to provide effective teacher feedback (Van den Bergh et al., 2013; Gipps et al., 2010; Hattie, 2003; and Wiggins, 2012). This research focused on effective teacher feedback, a teacher strategy that has been determined to greatly affect student success. The purpose of this research was to compare teachers' perceptions of providing feedback and to observe effective teachers' use of feedback in kindergarten classrooms.

Four teachers, rated as effective teachers by TEAM, were observed in this study. Each teacher was observed four times; twice for an ELA observation and twice for a Math observation. Each observation was approximately one hour in length. The purpose of the observations was to ascertain what levels of feedback effective teachers give to their kindergarten students and what levels of feedback are given most frequently and least frequently by effective teachers.

Each of the four teachers had their own strength and weaknesses in providing teacher feedback. Teacher Z provided more FT than the other teachers indicating this teacher informed students they were either on the right track or off task in their performance or responses more than the other three teachers. Even though teacher W provided more FP than the other teachers,

the amount was relatively small compared to the amount of verbalizations given. Yet, this teacher effectively guided students through a series of questions as they processed teacher feedback to give appropriate responses.

Although Teacher Z provided good FR, each time the feedback was verbatim when she asked students to think about their answers before responding. Overall, Teacher X provided the least amount of effective teacher feedback. All four teachers provided more FT than any of the other feedback levels which coincides with Hattie and Timperley's (2007) research that found FT to be the most frequently level of feedback given by teachers. The least amount of feedback provided by all teachers was FS which was determined by Hattie & Timperley (2007) to be the least effective feedback level. Results indicated the effective teachers in this study gave FT more frequently than the other three levels of feedback and FS less frequently. These results were also reported by Hattie and Timperley (2007) as the most (FT) and least (FS) frequently feedback levels given by teachers. It is important to acknowledge when FT is provided mainly as corrective feedback, it is not considered the most effective feedback. The overwhelming majority of FT given by teachers in this study was corrective FT therefore, they did not provide the most effective feedback to their students that will increase student achievement.

The perceptions of the effective teachers in this study was they frequently provide effective feedback to their kindergarten students. The results of this study indicate the teachers' perceptions of the amount and kind of feedback they provide to students does not match the evidence of the feedback they were observed to provide in the classroom. The perceptions of kindergarten teachers determine to a great extent how kindergarten students are taught and evaluated (McCrea, 2013), yet the results of the current study indicate teachers' perceptions of the amount and kind of feedback they provide is inaccurate. Given that teacher feedback is the

single most powerful teacher strategy to increase student achievement, it seems plausible that this study can establish a foundation for further research on the need to prepare educators to provide effective feedback throughout all grade levels but especially in kindergarten where current research is extremely limited.

CHAPTER 5

DISCUSSION

A significant amount of research has been devoted to factors that impact student learning and achievement. However, the majority of research on student academic success has focused on students in third grade and above with very little studies in kindergarten. This could be due in part to changes over the years in the purpose of kindergarten in the United States. American kindergarten began based on the work of Friedrich Froebel who believed children learn through play and developed educational *gifts* or toys, songs, and finger plays to educate children through every day experiences. The industrial revolution brought about the need for child rearing practices and citizenship in kindergarten classrooms. Later, the emphasis on behaviorism became the goal and less emphasis was placed on social development. During the 1920s behaviorist ideals on learning objectives gave rise to the child studies movement and which led to the emergence of university research on child development (Shapiro, 1983). These studies initially found no immediate individual effects of kindergarteners on later school achievement and studies then began to concentrate on assessing teacher qualities rather than focus on child assessment.

When kindergarten merged with public schools in the 1960s, research validated studies that experiences in kindergarten are linked to later academic success (Mindess & Mindess, 1972). A political view on the education of all American children took effect with the publication of *A Nation at Risk* (U.S. Department of Education, 1983) which reported the nation was at risk of having Japan surpass America intellectually. The publication resulted in a push to develop the intellectual capacity of Americans beginning with compulsory education for kindergarten. Goals 2000 of the Educate America Act (1994) had as its first goal that all

children would start school ready to learn (Morrison, 1998). Today, school readiness is no longer the goal of kindergarten but instead, “The purpose of the new kindergarten is to teach children a rich, meaningful, and balanced curriculum of skills and information through age-appropriate activities that encourage children to want to learn more” (Marzollo, 1987, p. 1).

Effective teachers do not merely impart information but they are skilled at assessing and evaluating how students understand the information. so that what teachers do next helps to scaffold and support current understanding. When used effectively, teacher feedback is a readily available and highly effective strategy for assessing, evaluating and scaffolding children’s learning.

Implications

This research on effective kindergarten teachers’ perceptions and the feedback they provide to their students provides important insights into what is actually happening in kindergarten classrooms regarding teacher feedback. It is necessary to consider the findings of this research as part of the discussion of effective teaching strategies that are easy to employ and yet significant for increasing student achievement.

Responses to the questionnaire indicated participants were qualified, effective teachers with one teacher having five to nine years’ experience teaching kindergarten and another teacher having taught kindergarten for ten to fifteen years. The other two teachers have taught kindergarten for two to four years. Three teachers have a Bachelor’s degree in elementary education and one has a Master’s degree in early childhood education. However, the number of workshops, conferences, or presentations they attended in the past three years on whole group instructional practices (which would include teacher feedback) is limited. Additionally, their perceptions of the kinds of feedback they give to their students did not align with what was

observed during this research. Therefore, attending more of these professional development opportunities, especially on teacher feedback, can train them how to use this uncomplicated strategy to increase student achievement. This study implies a need for teachers to align their perceptions with what they actually do in the classroom. This could be accomplished by a combination of involvement in a professional learning community, professional development opportunities and coaching. Such opportunities would lead to better understanding of the effects of teacher feedback and its impact on student achievement.

Teacher professional development opportunities strongly influence teaching and learning experiences and numerous opportunities for professional development can be derived from this research. Training potential and novice teachers, and supporting experienced teachers on how to provide effective teacher feedback can make a significant impact on student learning. Additionally, the results of this study can impact how teachers, administrators, policy makers and legislators determine instructional methods and teacher evaluation expectations based on the provision of effective feedback to increase teacher effectiveness and ultimately student achievement.

Actively participating in professional organizations, attending conferences, seminars, Workshops, and presentations and required district assigned professional readings can provide professional development opportunities for insight and impact.

Areas for Future Research

There are many dimensions for expansion of this study. The availability of increasing articles on teacher feedback would help keep educators informed on current research that identifies effective, easy to use strategies that can increase student achievement. Therefore,

submission of articles based on this research can be extremely helpful to the educational community.

The research questionnaire, although effective for this study, can be developed into a larger survey which could provide a qualitative study of teachers' perceptions. Additionally, a more in-depth study of each teacher could provide a case study methodology which would provide deeper insight into what is happening in kindergarten classrooms versus what teachers perceive they are doing. A richer study of teachers' perceptions versus observed behaviors can shed a brighter light on teacher practices that help ensure the academic success of kindergartners.

The results of this study can be used by future researchers to further their own studies. For example, this study can be replicated with a different methodology such as using a random sample or including an urban or metropolitan school district along with a rural district. Expanding the study to include first, second, and third grade teachers would increase the limited amount of research at those grade levels. New research can study feedback by non-effective teachers.

It is in the interest of policy makers, educators, parents, the community, and all stakeholders to implement efficient, effective and effortless ways to link effective teaching to student learning and achievement. The single most important impact on student achievement is the teacher and the single most powerful strategy teachers can use to increase student achievement is the use of effective teacher feedback. This study found teachers perceive themselves as providing quality feedback to their students, however that is not what the evidence shows. Principals, school directors, state level monitors and evaluators have a huge stake in leading the way for educators to receive all available resources on how they impact learning and achievement. More studies in this area are crucial. A most revealing study would add to the

research on evaluators' perceptions of feedback and what they look for when they evaluate teacher feedback during their observations. Teachers are held to a high standard of accountability for student performance therefore they should be equipped to meet that responsibility successfully.

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Appendix B

TEAM Rubric

General Educator Rubric: Instruction

Significantly Above Expectations (5)

Questioning

- Teacher questions are varied and high quality, providing a balanced mix of question types:
 - knowledge and comprehension,
 - application and analysis, and
 - creation and evaluation.
- Questions require students to regularly cite evidence throughout lesson.
- Questions are consistently purposeful and coherent.
- A high frequency of questions is asked.
- Questions are consistently sequenced with attention to the instructional goals.
- Questions regularly require active responses (e.g., whole class signaling, choral responses, written and shared responses, or group and individual answers).
- Wait time (3-5 seconds) is consistently provided.
- The teacher calls on volunteers and non-volunteers, and a balance of students based on ability and sex.
- Students generate questions that lead to further inquiry and self-directed learning.
- Questions regularly assess and advance student understanding.
- When text is involved, majority of questions are text-based.

Academic Feedback

- Oral and written feedback is consistently academically focused, frequent, high quality and references expectations.
- Feedback is frequently given during guided practice and homework review.
- The teacher circulates to prompt student thinking, assess each student's progress, and provide individual feedback.
- Feedback from students is regularly used to monitor and adjust instruction.
- Teacher engages students in giving specific and high-quality feedback to one another.

At Expectations (3)

- Teacher questions are varied and high quality providing for some, but not all, question types:
 - knowledge and comprehension,
 - application and analysis, and
 - creation and evaluation.
- Questions usually require students to cite evidence.
- Questions are usually purposeful and coherent.
- A moderate frequency of questions asked.
- Questions are sometimes sequenced with attention to the instructional goals.
- Questions sometimes require active responses (e.g., whole class signaling, choral responses, or group and individual answers).
- Wait time is sometimes provided.
- The teacher calls on volunteers and non-volunteers, and a balance of students based on ability and sex.
- When text is involved, majority of questions are text-based.

Significantly Below Expectation

- Teacher questions are inconsistent and include few question types:
 - knowledge and comprehension,
 - application and analysis, and
 - creation and evaluation.
- Questions are random and lack c
- A low frequency of questions is a
- Questions are rarely sequenced with attention to the instructional goals
- Questions rarely require active re (e.g., whole class signaling, choral r or group and individual answers).
- Wait time is inconsistently provid
- The teacher mostly calls on volun high-ability students.

Appendix C

School Code__

TEACHER QUESTIONNAIRE

Teacher Code__

Please check the appropriate box for each question.

Kindergarten Teaching Degree and Experience:

1. Prior to this school year, how many years have you taught a kindergarten class?
┆ 0 years 2-4 years 10-15 years
┆ 1 year 5-9 years more than 15 years
2. What is your current certification? Check all that apply.
┆ Early Childhood Elementary Education Special Education

Personal Background

3. Gender: Female Male
4. Age: 22-26 27-30 31-35 36-40 Over 40
5. Race/Ethnicity: African American Asian American Caucasian
Hispanic/Latino Native American Specify Other _____

Professional Development:

6. What is your highest level of education?
┆ Bachelor's Degree Master's Degree Specialist Degree Doctorate
7. Are you currently seeking another degree? Yes No
8. Approximate number of workshops/conference presentations attended in the past 3 years on whole group instructional practices.
┆ 0 1-3 4-9 10-15 more than 15

Classroom: Please enter a number by each question as indicated.

9. How many assistants are assigned to your classroom?_____
10. Number of children enrolled in this classroom? _____
11. Number of children with disabilities enrolled in this classroom. _____
12. Number of children enrolled who are:___African American___Asian American
___Caucasian ___Hispanic/Latino___Native American ___Other
13. Number of children new to this classroom as of last week._____
14. Number of children attending another classroom during your whole group instruction_____(example: children who may go to 1st grade reading or math)
15. Please check each day that you have whole group instruction. __ Mon Tue Wed
__Thurs Fri
16. What time is your whole group instruction?_____to_____. Check:___a.m. or ___p.m.

School Code _____

Teacher Code _____

Teacher Evaluation:

17. What was your overall TEAM score as of August, 2015 _____

Please click on the appropriate box for each question. _____

Teacher Influence:

Which one of the following do you consider to have the greatest impact on student achievement?

- Teacher Sensitivity Teacher Experience Teacher Educational Level
- Teacher Feedback Teacher Content Knowledge

Estimate the frequency in which you provide the following comments during whole group instruction on a daily basis:

	Frequently	Less Frequently	Seldom
Authentic, verbal praise for student work/comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constructive remarks to students' work/comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informing students of goal of current work/assignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Encourage students to monitor the accuracy of their own progress/work/comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilizing prior knowledge to stimulate new learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Guiding students to reflect on their learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments to assist students to improve or correct their thinking/performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responses to challenge students' thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VITA

JACQUELINE WILLIS JOHNSON

- Education
- Public Schools, Memphis, Tennessee
 - B.S. Health Education, Middle Tennessee State University, Murfreesboro, TN, 1993
 - M.S. Health, Physical Education and Recreation, Middle Tennessee State University, Murfreesboro, TN, 1996
 - Ed.S. Administration and Supervision, Middle Tennessee State University, Murfreesboro, TN, 2000
 - Ph.D. Early Childhood Education, East Tennessee State University, Johnson City Tennessee, 2017
- Professional Experience:
- Teacher, Riverdale High School; Murfreesboro, Tennessee, 1994
 - Program Coordinator; Mid-Cumberland Head Start, Murfreesboro, Tennessee, 1993-1999
 - Director, Middle Tennessee State University; Murfreesboro, Tennessee, 1999-2000
 - Coordinator, Murfreesboro City Schools; Murfreesboro, Tennessee, 2000-2001
 - Coordinator, Nashville READ, Nashville, Tennessee, 2001-2003
 - Director/Assistant Professor, Early Childhood Education, Motlow State Community College; Tullahoma, Tennessee, 2003-2008
 - Assistant Professor, Early Childhood Education; East Tennessee State University; Johnson City, Tennessee 2009-2010
 - Education Consultant, Tennessee Department of Education; Nashville, Tennessee, 2010-2013
 - Adjunct Professor, Middle Tennessee State University; Murfreesboro, Tennessee 2014
- Honors and Awards
- Middle Tennessee State University Undergraduate Cum Laude
 - Tennessee Board of Regents Academic Leadership Institute
 - Community College Representative Tennessee Board of Regents Summit on Teacher Quality
 - Tennessee Board of Regents Maxine Smith Fellow
 - Middle Tennessee State University Mentee