

ETC 693 Master Project

**Effect of Homework Differentiation on Kindergarten Literacy**

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I give permission to City University to store and use this MIT Project for teaching purposes.

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### **Abstract**

The purpose of this study was to analyze the impact that differentiated homework has on Kindergarten reading fluency. This study divided 20 kindergarteners into reading level groups: low, middle, and high based on sight word recognition on a pre-assessment using the Independent Reading Level Assessment (IRLA). Over the course of four weeks students received differentiated homework assignments. After the intervention, students were to complete a post-assessment to assess sight word recognition. Based on data collected, there was a positive relationship between homework completion and reading success. Based on research, one could conclude that differentiating homework assignments would benefit all students at their level, and that they would show growth by the end of the intervention.

### **Introduction**

For many students in the U.S., Kindergarten is the first year of formal education. Some families opt to have their students attend preschool or pre-kindergarten where they follow a curriculum that helps to prepare their child for Kindergarten study. Other families choose not to enroll their child in preschool for reasons ranging from financial limitations to availability to personal choice. Due to this varying level of preparedness, Kindergarten teachers face a unique challenge of meeting a wide range of needs for incoming students. One way to meet the needs of a variety of learners is to differentiate instruction or learning materials in the classroom. Reading is one of, if not the most challenging and crucial skill developed in the Kindergarten year. Research shows a direct relationship between reading fluency in Kindergarten and academic success in later years (Casares & Weyer, 2019). Family involvement is a key element in determining the success of students in early elementary school (Moroni, Dumont, Trautwein, Niggli, & Baeriswyl, 2015). Families must ensure that children arrive to school on time and prepared to learn, and they must stay informed and connected to the school community. Homework assignments are an excellent extension of learning from the classroom to home and involve families. The purpose of this study is to explore ways in which redesigning differentiated homework can affect Kindergarten students' reading fluency.

### **Problem Statement**

The problem to be addressed in this qualitative action research study is that Kindergarten students are not meeting their fluency reading standards, which negatively impacts achievement in all academic areas.

## **Rationale**

Students struggling to acquire reading skills poses a problem not only in Kindergarten but in later years as well. Kindergarten is where the foundation for reading is built. Reading is one of the most valuable skills to acquire, but also one of the most challenging proficiencies to master for young students (Kern & Friedman. 2008). Some studies have found that early reading ability is directly related to long-term reading success, and that kindergarten reading level can be a predictor for academic success in fourth through sixth grade (Kern & Friedman, 2008). In order to best serve a wide range of learning levels and abilities, teachers cannot and should not adopt a one-size-fits-all approach to teaching or to homework. Based on Vygotsky's (1978) theory of the Zone of Proximal Development, students do the most valuable learning when tasks are appropriate to their level. The way teachers can achieve this in the classroom is through differentiation. Differentiation can be defined as a means of meeting learners where they are academically and guiding them through successful learning practices that meet their identified learning styles (Tomlinson, 2001). When assignments and homework are differentiated, each student is receiving an education that is tailored to meet their specific needs. If homework is too difficult for students, they often run into feelings of stress or burnout. If homework is too easy for a student, it can lead to boredom and the student not being challenged appropriately (Tomlinson, 2004).

## **Literature Review**

### **Introduction**

Homework has a history of being a controversial topic in education. Points of interest include how long students should spend on homework, grade level appropriateness, whether to assign homework at all, and the impact homework has on successful completion of end of year

benchmarks (Gant, 2016). The various players in the debate come to the discussion from very different perspectives: the teacher, the parent, the administrator, and the student. Whether homework is viewed as a reinforcer of material being taught in a classroom by the teacher, an indicator of a child's success in school, or a frustration students and parents have to deal with on a daily basis, there is little doubt that homework in school impacts the entire family (Wright, 2010).

Although this topic has been debated for decades, there is surprisingly little research to definitively support one side or the other. Each side of the argument on whether to assign homework or not can be supported by strong reasoning (Cooper & Valentine, 2001). So the question is more complicated than whether or not homework is a good idea, and full understanding requires a deeper look at historically how we view homework, what are the perspectives of parents and teachers regarding homework, and what impact does homework make on student success and student's lives. Perhaps this is not an issue that can be answered with a simple yes or no, and we must analyze delivery method, quality, and quantity of homework assigned. This review of literature includes rationale supporting the importance of reading fluency in early elementary, the history of homework in the U.S., advantages and disadvantages of homework, parent involvement in school, ways to rethink homework, and ways to differentiate instruction and why it is beneficial.

### **Importance of reading fluency in early elementary**

Reading is one of the most valuable proficiencies to master, yet presents some of the toughest challenges for young students (Kern & Friedman, 2008). Students enter school with vastly different background knowledge, having had different language and literacy experiences at home, so the first line of defense against reading disabilities is initial classroom literacy

instruction (Al Otaiba, Connor, Folsom, & Greulich, 2011). Early literacy has proven to have a significant impact on graduation rates (Casares & Weyer, 2019). According to research, third graders who are not reading at grade level are among the most vulnerable to drop out of school later (Casares & Weyer, 2019).

Some studies have found that early reading ability is directly related to long-term reading success, and that kindergarten reading level can be a predictor for academic success in fourth through sixth grade (Kern & Friedman, 2008). A long-term study performed by the Annie E. Casey Foundation (2010) found that students who were not proficient in reading by the end of third grade were four times more likely to drop out of high school than proficient readers (Fiester, 2010). In fact, 88 percent of students who failed to earn a high school diploma were struggling readers in third grade (Fiester, 2010). Third grade has been identified as important to reading literacy because it is the final year children are learning to read, after which students are “reading to learn”. If they are not proficient readers when they begin fourth grade, as much as half of the curriculum they will be taught will be incomprehensible (Casares & Weyer, 2019).

This demonstrates the need for identifying learning struggles early and putting interventions in place for emergent readers. In order to apply interventions appropriately to address the needs of a given student, teachers must assess students, analyze that data, and differentiate interventions based on those needs. Cluster-randomized control studies in schools conducted by Connor, Morrison, Fishman, Schatschneider, and Underwood (2007) have shown that interventions in place to help teachers provide the amount and type of instruction tailored to students’ skills, as informed by assessment data, results in stronger reading growth.

Word recognition plays an important role in learning how to read. The ability to recognize some words automatically, or by sight, contributes to reading effortlessly and with



understanding in young readers (McArthur, Castles, Kohnen, Larsen, Jones, Anandakumar, & Banales, 2015). One hundred words account for almost half of the words we read and write in the English language and just ten words account for almost 25%. As early as possible children should learn to read and spell these high-frequency words (Cunningham, 2012). Words that can be quickly recognized and memorized are called sight words, of which there are two types. The first type of sight words includes decodable words that frequently occur in printed English (e.g., “and”, “like”, “get”). These *high frequency* words can be read by sounding them out, but they appear so often in text that learning to read them by sight will increase children’s reading fluency (Joseph, Nation, & Liversedge, 2013). These words can provide a student access to connected text prior to learning the phonics principles otherwise necessary for decoding them (Ehri, 2014). The other type of sight words cannot be decoded because they do not follow the typical letter-sound rules (e.g., “have”, “there”, “of”). These are *irregular words* and because they cannot be identified, they must be memorized and recognized automatically by sight. Homework is a tool that educators use to assign additional practice, especially for skills like sight word mastery that can be learned through repeated practice and memorization.

### **History of Homework**

Reading is the foundation of literacy, and reading homework is assigned to students with the intention of strengthening reading skills. Homework is defined as tasks that teachers assign to students that are meant to be completed during out-of-school hours (Bempechat, 2004). The general attitude about homework and its effectiveness has changed over the last century in the United States. The 1901 California Civil Code stated that no child under the age of fifteen should be required to do any school work at home, and this regulation reflected the strong feelings at the time that homework could be called a form of “school imperialism” (Gill &

Schlossman, 2003). The arguments against homework at the turn of the century most often focused on the issue of school imperialism and the health hazards of homework. Heavy book bags and a lack of fresh air and sunshine, the result of sitting inside doing homework, were on the top of anti-homework crusaders lists (Gill & Schlossman, 1996).

In the 1950s, the Space Race caused homework to spike for American students in an effort to exceed their Russian counterparts (Spencer, 2017). In 1983, President Ronald Reagan's National Commission on Excellence in Education released a report that would change how homework was viewed by politicians, parents, and educators (Lichter, 2017). This publication was entitled "A Nation at Risk". The premise behind "A Nation at Risk" was that total school reform was necessary to close the achievement gap between America and those nations considered to have the highest performing students (Lichter, 2017). An essential component to such largescale reform was the requirement that American students complete more homework on a nightly basis to ensure student success (Kralovec & Buell, 2000). Homework was a way to add school time for increased math and science education (Kralovec, 2007). While in more recent decades there has been a broad consensus on the value of homework, there has been some opposition. Parents in some communities have felt that homework is excessive and damages family life (Kralovec, 2007).

### **Advantages and disadvantages of homework**

The argument for homework focuses on both social and academic benefits. Overall, the research suggests that assigning homework in the early school years is beneficial more for the valuable motivational skills it serves to foster in the long term, than for short-term school grades. Undoubtedly, parents are in a greater position to influence their children when they are younger than when they are older (Xu & Corno, 1998). In the early years, when parents' attitudes about

homework are positive, they laid the foundation for students' positive attitudes later, which are related to their grades (Cooper, Lindsey, & Nye, 2000). Supporters of homework believe that homework's ability to positively impact students goes beyond academics. Homework assists with student responsibility, limits behavior problems, and helps students learn how to meet deadlines (Ekici, 2014).

Homework has several research-proven benefits. Intellectual advantages include improving students' achievements (Cooper, Robinson & Patall, 2006), narrowing the achievement gap between high- and low-achieving students (Keith, 1982), practicing the skills students learn in the classroom (Brock, Lapp, Flood, Fisher & Keonghee, 2007; Cooper, 2007), expressing their creativity (Corno, 2000), developing self-regulation skills such as time management and accountability (Bembenutty, 2011), and establishing overall good learning habits (Brock et al., 2007; Cooper et al., 2006). Instructional advantages include its use to assess students' knowledge and skills (National Education Association, 2008), encourage student participation in class (Brock et al., 2007), extend the school day with very little economic investment (Bluestein, 2012), and introducing new material to students (Shellard & Turner, 2004). Additional benefits of homework include developing students' independence, promoting a positive attitude toward school (Brock et al., 2007; Cooper et al., 2006), and taking developing self-discipline and self-confidence (Corno, 2000; Epstein & Van Voorhis, 2001). Research also suggests students view homework as a social motivation more than a cognitive goal (Warton, 2001).

In 1986, Cooper (1989) began an extensive study on traditional homework practices. Cooper's research suggested that homework did have a positive effect on achievement for middle and high school. On the contrary, homework in primary grades showed little to no effect

on achievement. There were no data to support the claim that traditional homework in elementary school increased academic achievement, regardless of the amount of homework assigned. However, Cooper found that homework in the early grades instilled positive attitudes in young students that made up for the lack of impact on academic achievement. He therefore suggested that elementary teachers continued to assign homework as a result of positive nonacademic effects. Cooper concluded that homework for young children should help them develop good study habits, foster positive attitudes toward school, and communicate to students the idea that learning takes place at school as well as at home (Cooper, 1989). As such, homework in elementary grades should be short, should only require materials commonly found in the home environment, and should lead to successful experiences for students (Cooper, 1989). In a later study, Cooper and Valentine (2001) concluded that the effect of homework on the achievement of young students appears to be small, even bordering on trivial. American elementary school teachers continue to assign homework, even though research demonstrates that traditional homework methods are not academically rewarding for elementary students (Hickerson, 2012).

Critics who condemn homework point to the fact that research on the topic has produced inconsistent findings and argue that its impact on achievement, especially in elementary school, is, at best, unclear. Research suggests that in the lower grades, homework contributes little or not at all to academic achievement, so the question of why we continue to engage in a practice that can promote conflict between parents and children and interfere with development in other domains, such as athletics and the arts becomes prevalent (Wildman, 1968). Another concern with traditional homework practices is the potential burden placed on overstretched working parents or low-income parents, who are likely to have access to fewer resources to help their

children. This thinking leads to the conclusion that maybe the best recourse is to minimize or eliminate homework altogether (Bempechat, 2004).

Pedagogical disadvantages of homework include the lack of guidance and instruction from teachers, students essentially practicing errors because teachers not aware of mistakes made while performing the assigned tasks, and take-home tasks are an unreliable tool to assess the true comprehension of the student (Kralovec & Buell, 2001). Social disadvantages of homework include the extra school responsibilities that can interfere with leisure and extracurricular activities (Cooper et al., 2006; Coutts, 2004; Kralovec & Buell, 2001).

Another disadvantage of homework is that it can create increasing social gaps between rich and poor students due to access and variance in their home life (Cooper et al., 2006; Thomas, 1992). Studies have also shown that homework in some cases encourages cheating and copying (Kralovec & Buell, 2001; Thomas, 1992). Perhaps the most troubling disadvantage of homework is the undue stress it can cause as a result of increased workload, which leads to mental fatigue, loss of interest in school, and negative emotions about learning (Kralovec & Buell, 2001).

Stress is a term that is often associated with nightly student homework. Cooper & Valentine (2001) pointed out that homework is the number one cause of stress and friction between the school and the home. It is not surprising, therefore, that students tend to avoid doing homework (Patall, Cooper, & Allen, 2010) and that young students do their homework mainly due to external motives, such as fear of punishment and a desire to please their parents and teachers (Warton, 2001). The single greatest predictor of stress in elementary to middle school aged children from ages 9-13 was the amount of time spent on homework (Brown, Nobiling, Teufel, & Birch, 2011). According to Frey and Fisher (2011), the best homework is an

opportunity for students to practice something that they know how to do. It's not a good idea for students to try to master new information on their own at home, without peer and teacher support (Frey & Fisher, 2011). Data from a MetLife survey indicated that 26% of secondary teachers confessed that they "very often or often" assigned homework because they ran out of time in class (MetLife, 2007). This can be problematic because it means that the lesson plan called for the teacher or peers to support learning, yet the expectation changed because of the lack of time. Research showed that homework must be planned and organized to be effective (Vatterott, 2009).

### **Parent involvement in students' education**

Parent involvement in students' learning has been recognized as an important aspect of children's education. Parental involvement represents a multifaceted behavior that can take place in school (school-based involvement: e.g., community services at school) or at home (home-based involvement (Grolnick & Slowiaczek, 1994). Parent involvement can be defined as parents' interaction with schools and with their children to benefit their children's education success (Epstein & Van Voorhis, 2001). Activities that have been considered to represent parent involvement include involvement at school (e.g., parent-teacher communication, attending school events, and volunteering at school), involvement at home (e.g., structured homework time and educational opportunities, monitoring schoolwork and academic progress), and academic socialization (e.g., communicating parents' expectations regarding schoolwork, encouraging educational and career goals, and preparation for future goals).

A study reported by Hoover-Dempsey, Battiato, Walker, Reed, DeJong, and Jones (2001) suggested that parents involve themselves in their children's homework because they feel that they should, because their involvement will make a positive difference, and because it is an

expectation from the teachers. They found no clear indication that parental involvement in homework positively affects student achievement, but that parental involvement can positively affect students' attitudes and perceptions of homework. Drummond and Stipek (2004) focused their research on low-income parents' perception of homework and their role in assisting with their children's homework. According to their results, low-income parents strongly believe in using homework to help their children be successful in school, but parents' own lack of competency in reading and math contributed to a lack of homework help. They found that parents welcomed effective strategies for helping their children learn at home. Other studies on the importance of parental involvement in homework suggested that students benefited from the practice if parents helped their children with homework (Epstein & Van Voorhis, 2001), reinforced the importance of completing homework (Xu & Corno, 2003), rewarded their children when homework was completed (Bailey, 2006), spoke positively about homework (Knollmann & Wild, 2007), modeled good study habits, and established high expectations for their children (Pomerantz, Fei-Yin Ng, & Wang, 2006).

It has been theorized that there are three reasons that parents do or do not become involved with school related activities (Hoover-Dempsey & Sandler, 1995). First, parents must believe that their role includes involvement and must have also observed parent involvement by either their own parents or other adults to ensure success (Hoover-Dempsey & Sandler, 1995). Second, parents become involved if they experience feelings of being effective in helping their children (Hoover-Dempsey & Sandler, 1995). These feelings can be lessened if parents believe they lack the skills and knowledge necessary to help (Hoover-Dempsey & Sandler, 1995). Third, parents become involved if their assistance is requested by school personnel or their own children (Hoover-Dempsey & Sandler, 1995). Past research suggested that parental homework

involvement can be classified as two distinct types of help: quantitative help (e.g., doing homework with the child, providing answers) and qualitative help (e.g., avoiding distractions, providing rules for homework completion, providing support for finding answers) (Gonida & Cortina, 2014). Although the general concept of parental involvement is accepted to be one of the key promoters of learning, parental homework involvement is not always positively related with desired school outcomes such as achievement. For example, a recent study found the frequency of parental homework help to be negatively related with student achievement in some instances and raised the question of how parents should help with homework. The authors concluded that parents should provide a suitable learning environment for homework completion to foster self-regulated learning and children's autonomy, but that parents should not do the homework for the child (Moroni, Dumont, Trautwein, Niggli, & Baeriswyl, 2015).

### **Rethinking homework**

Many educators who are critical of homework believe that the greatest flaw is in the design of the homework (Frey & Fisher, 2011; Marzano & Pickering, 2007). When teachers do not assign high-quality homework, the benefits are minimal or can even be detrimental to student learning (Marzano & Pickering, 2007). The National Education Association (NEA) (2006) has recommended 10-20 minutes per night for first grade students and an additional 10 minutes for each grade thereafter. Some parents and critics against homework argue that teachers are assigning much more than the NEA recommended amount (Bennett & Kalish, 2006; Kralovec & Buell, 2001; Simplicio, 2005). Homework being too time-consuming can quickly lead to feelings of frustration and burnout for both students and their families. Recent studies have provided evidence that homework assignments are not always performance-enhancing, and that the effectiveness of homework seems to depend on the quality of the tasks assigned (Dettmers,



Yotyodying, & Jonkmann, 2019). Based on this research, homework is most effective and beneficial when it is relevant to current learning and requires a reasonable amount of time to complete. One way to change the way we look at homework is to change the way it is delivered. Particularly for Kindergarten students who are not yet able to read, assigning homework in the form of a worksheet requires an adult to read the directions and guide the work. Changing the way homework is delivered has the potential to extend student learning into students' home environments without the teacher's physical presence (Tunstall, M., & Bull, P. 2012).

Warton (2001) reported that the quality and design of homework may have a direct impact on young students' motivation to learn. Quality homework that supports young children's motivation to learn may result in greater academic achievement. Homework that is low quality may decrease students' motivation to learn and could possibly negatively affect academic achievement. The best homework tasks exhibit five characteristics. First, the task has a clear academic purpose, such as practice, checking for understanding, or applying knowledge or skills. Second, the task efficiently demonstrates student learning. Third, the task promotes ownership by offering choices and being personally relevant. Fourth, the task instills a sense of competence—the student can successfully complete it without help. Last, the task is aesthetically pleasing—it appears enjoyable and interesting (Vatterott, 2009).

### **Differentiation**

Modern-day school populations are becoming increasingly academically diverse (Ketterlin-Geller, 2004; Tomlinson, 2004). The inclusion of students with a wide range of disabilities, students who are English language learners, students with imposing emotional difficulties, and students identified as gifted learners reflect this growing diversity (Tomlinson, 2001). Research has proven the argument that individuals do not learn in the same way (Fischer

and Rose, 2001; Guild, 2001). This fact justifies the need for differentiation in education. Differentiating instruction is the practice of acknowledging various student readiness levels, backgrounds, languages, interests, and learning profiles (Hall, 2002). A chief objective of differentiated instruction is to take full advantage of every student's ability to learn (Tomlinson, 2005). The use of a one-size-fits-all approach to curriculum no longer meets the needs of the majority of learners and disregards the different learning styles and varying interests present in all classrooms (Fischer and Rose, 2001; Tomlinson, 2001). In addition, addressing differences and interests in a classroom environment enhances students' motivation to learn while encouraging them to remain committed and stay positive (Lawrence-Brown, 2004).

An important aspect of a student's learning profile and thus a crucial factor to consider when differentiating instruction is readiness. A student's readiness refers to their academic level, or point of entry (Tomlinson, 2000). While some students are typically at their grade level, others may be struggling or below the level of their peers, and some others may be up to a year or more ahead of their peers (Tomlinson, 2001). Because readiness levels vary greatly in current classrooms, providing leveled materials to all learners and differentiated support develops an atmosphere for success for all learners (Lawrence-Brown, 2004). Teachers should be able to assess the evolving readiness levels of students and accommodate accordingly. Students learn most effectively when tasks are moderately challenging, neither too complex nor too simple (Tomlinson, 2004). Research into the workings of the human brain has significant implications for education and suggests three concepts that necessitate a differentiated approach (Tomlinson & Kalbfleisch, 1998). First, the learning environment should be safe and non-threatening. Children who experience rejection or discomfort through pressure, failure, or intimidation will not feel safe within a learning context (Tomlinson & Kalbfleisch, 1998). Second, students must

be appropriately challenged, and new learning should feel comfortable to the learner by being neither too difficult nor too easy. Third, the student must be able to make meaningful and significant association to the skills and ideas (Tomlinson & Kalbfleisch, 1998). Researchers Rock, Gregg, Ellis, and Gable (2008) reported that differentiating instruction is necessary in today's classrooms in the U.S. in order to meet the diverse academic needs of all students. Their research also suggests that a lack of differentiation in schools contribute to low academic achievement.

### **Question**

In what ways will differentiated homework impact Kindergarten students' reading fluency?

### **Purpose**

The purpose of this action research study was to find out if differentiated homework would improve reading fluency scores in Kindergarten students.

### **Methodology**

This intervention was planned to take place in a Kindergarten classroom over the course of four weeks, however, due to the Covid-19 pandemic, only two weeks of data was gathered. Students were to be assessed on their reading fluency, and sight word recognition to determine their reading level before and after the intervention using the framework from Independent Reading Level Assessment (IRLA) (Hileman & Cline, 2017). This data was entered into the online running record program that corresponds with IRLA, which is called School Pace. Based on their reading level students were divided into three groups: below grade level or low, at grade level or middle, and above grade level or high. Homework practice packets were given to students that were differentiated based on these reading levels. Homework was consistent with

the sight words in Journeys curriculum that students were learning in class (Baumann & Fountas, 2014). Homework was designed to take no more than 20 minutes per night to complete and was varied and engaging. Homework assignments did often require parent involvement to complete. Per district policy, homework was optional but encouraged, and data was collected on the number of students who completed the homework, which students completed the homework, and how this related to their achievement in the classroom. At the end of the intervention students would have been assessed again on sight word recognition and IRLA level to see what affects the intervention had on reading fluency.

### **Context**

This study took place within a Kindergarten classroom in a small and diverse school that has about 400 students enrolled, from Pre-K to 6<sup>th</sup> grade. The school is in a suburban community in Western Washington. The ethnic makeup of the school population is 0.2% American Indian, 20.7% Asian, 10.8% Black/African American, 17.6% Hispanic/Latino, 4.6% Hawaiian/Pacific Islander, 32.3% White, and 13.7% two or more races. This school has 24.7% of students identified as English Language learners, 47.4% students identified as low income, 28.4% of students with disabilities and receiving Special Education services, and 2.5% of students on Section 504 plans.

### **Participants**

The participants in this study were chosen because they were in the class where I completed my student teaching. Participants included all 20 students in a Kindergarten class: eight boys and 12 girls. There were six students on IEP plans for disabilities who were enrolled in the school's Special Education program called LINK. Of these six students, five have Autism Spectrum Disorder and one has severe anxiety and selective mutism. One additional student in

the class was in the process of being evaluated for special services based on significant challenges in behavior and social emotional skills. Due to the high level of special needs in the class, there was a paraeducator in the classroom for most of the day. There were nine students in the class identified as English Language Learners based on the language indicated by parents that is spoken primarily at home.

All participants agreed in writing to participate in the study by returning a signed parent informed consent form that was sent home detailing possible benefits and risks to the study, and assurance that participation is completely voluntary. Students were also given the opportunity by a third party to verbally consent to participation. All students' names will follow the pattern "Student A", "Student B", et cetera, on all written materials to protect anonymity.

### **Intervention**

The intervention included differentiated reading homework that is divided into three levels based on the students' Independent Reading Level Assessment (IRLA) placement and the pre-assessment of sight words given (Hileman & Cline, 2017). The three levels were defined as: below level or low, at level or middle, and above level or high based on IRLA benchmark standards for Kindergarten mid-year. Independent Reading Level Assessment (IRLA) measures specifically the number of sight words a student can identify from memory quickly from the list of first 60 words Kindergarteners should know (referred to as the 1-Green or 1G word list by IRLA) (Hileman & Cline, 2017). The number of words recognized was then used to place students into their leveled homework groups. Students who were able to identify less than ten words were placed into the low group. This group consisted of five students. Homework for the low group focused on review of sight words already learned in class, along with more basic phonics skills like letter sounds and letter recognition. Students who were able to identify 11-30

words were placed in the middle group. This group consisted of ten students who were considered on grade level. Homework for the middle group focused on the current and new 1G sight words, as well as review of some more difficult words already learned in class. The homework assigned to this group also included some simple reading comprehension activities. Students who were able to identify over 30 sight words were placed in the high group. This group consisted of five students. Homework for this group covered new words that had not been covered in class (high 1G words or 2G words) and focused on more in-depth reading comprehension and sequencing.

Each week homework packets that consisted of worksheets from Teachers Pay Teachers (2017) were given that included 1-2 reading practice activities based on reading level. Preparation included finding engaging homework worksheets that were appropriately differentiated for each of the three groups and aligning them with the corresponding curriculum over the course of the study, which was planned to take a total of four weeks. Each week, student homework was collected, and the researcher recorded which students turned in a homework packet and which students did not (Appendix A). Homework completion and participation was the focus, and it was not important for this study whether students completed the questions perfectly or correctly, so that data was not recorded. The six-week timeline was planned as follows: one week of pre-assessment and preparation of homework packets based on results, four weeks of homework differentiation, and one additional week of post assessment and analysis of data.

Students were given homework packets on Mondays that were due back to school by Friday of that week. The researcher kept a running record of which students turned in completed

homework packets each week. Due to the Covid-19 pandemic, data was collected for only two of the four weeks planned for this research study.

### **Data Gathering Instruments/Assessments**

**Assessment: Pre- and post-test.** This assessment would have been used to measure student proficiency before and after the intervention. Students were tested one on one on their sight word recognition, and reading fluency using IRLA (Hileman & Cline, 2017). Students were placed into an Independent Reading Level Assessment (IRLA) reading levels and that level was used as baseline data before the intervention and was supposed to be used at the end of the intervention to measure student growth.

Independent Reading Level Assessment (IRLA) uses an online running record application called School Pace where the researcher stored all pre-assessment data including number of 1G words each student recognized, and IRLA reading level. The researcher also kept a written record of the number of 1G sight words each student was able to identify in the preassessment (Appendix B) and would have added post-assessment data to this log.

In order to collect data to answer the research question, the researcher must consider how to ensure the findings of the study are credible and valid (Hendricks, 2013). Validity in this action research study was increased in several ways: establishing results as accurate and truthful (truth-value validity), showing that the results are an accurate representation of what actually occurred and not a result of the researcher's bias or personal interest (neutrality/confirmability), and using the results of the study for ongoing reflection and planning (outcome validity) (Hendricks, 2013). The researcher focused on truth-value validity as well as neutrality/conformability by making sure to record multiple types of data accurately, and by only reporting data reflecting actual student actions or scores, and not commenting on personal bias or

desires. In this study, the purpose was to evaluate the ways that differentiated homework assignments would impact Kindergarten reading fluency. Using multiple data collection methods including pre-assessment of sight word recognition and reading fluency, a table showing which students participated in homework and which students did not, along with how that correlates with their reading level, as well as a post-assessment to measure growth after the intervention were all ways of recording as much data as possible to inform this study. These data collection tools look at not only reading assessments, but also how differentiation impacts these assessments, and the relationship between homework completion and student success. Outcome validity focuses on ways the researcher will use ongoing reflective planning and make necessary changes to the research plan during the study. Homework packets were based on the academic needs of the students and were tailored to fit the weekly reading goals and sight word knowledge of each student group. As those needs continuously changed, the researcher created homework packets to best address them. According to Hendricks (2013), reflection in an action research study goes beyond simply revisiting what is occurring during the intervention, and instead the researcher must take action throughout the study to make changes when necessary.

### **Results**

The first week a total of nine students out of 20 in the class turned in homework packets. Two out of five students in the low group completed a homework packet, five out of ten students in the middle group, and two out of five students in the high group. Forty percent of students in both the low and high groups completed homework packets in week one, and 50 percent of students in the middle group completed a homework packet. The second week a total of 12 out of 20 students turned in homework packets. This included one out of the five students (20%) in



the low group, six out of ten students (60%) in the middle group, and five out of five students (100%) in the high group.

Due to the school closures, data was not collected for the third and fourth weeks and a post-assessment was not given. Based on patterns from the first two weeks, it can be assumed that there would be higher participation on homework packets in the middle and high reading level groups than in the low group. Cooper, Robinson, and Patall (2006) suggested that homework completion offers many benefits for students, particularly that homework can improve academic achievements for students. Students who completed the homework packets would benefit from the extra practice and extension of classroom activities they provided. As a result, higher scores on reading post-assessments would be the anticipated.

Lawrence-Brown (2004) suggested that because readiness levels vary in classrooms, providing differentiated materials and support can lead to success for all students. This intervention was designed based on the research proving that students learn most effectively when assignments are moderately challenging, not too complex and not too simple (Tomlinson, 2004). This suggests that over time, the personalized and differentiated homework assignments would have helped all students experience growth, not only a select few. The students who completed their tailored homework assignments would benefit from the extra practice, which would likely reflect in their in-class assessments. Warton (2001) reported that quality homework not only may result in greater academic achievement, but also may have a direct impact on students' motivation to learn, so the benefits of these homework assignments over time may have improved student engagement in class as well.

## **Discussion**

### **Conclusions**

In order to definitively conclude that this intervention was a success, more data would be needed. Students in higher reading leveled groups, on average, participated more often than students in lower reading leveled groups. While this is consistent with participation levels prior to the intervention, it was surprising to see that participation did not increase significantly with the new differentiated packets. This data is significant and worth exploring further because there may be a relationship between participation in homework and academic success. The goal of this research was to implement differentiated homework packets to measure whether reading fluency would improve across all academic levels. However, the results based on the limited data that was collected are inconclusive. In order to determine whether this intervention was a success, student data for completion of homework packets would need to be collected for weeks three and four, and a post-assessment needed to be given to test student sight word recognition with the same IRLA 1G word list used in the pre-assessment. If post-assessment data had shown growth across all levels for all students who completed homework packets, this data would suggest that homework differentiation does show promising benefits for students across all levels as a tool to improve sight word recognition and improve reading fluency.

### **Implications or relevance**

Differentiation in classroom instruction has been studied and implemented in classrooms for years, however differentiating homework is still not common practice. This study was relevant because it provided a way to study if differentiating homework, based on academic skill level, is a worthwhile tool for teachers to use in classrooms to improve students' performance in school.

**Limitations**

This study had several limitations. One limitation was time. While trends can be identified over short periods of time, it would be more valuable and a more accurate measure of success if this study took place over the course of months rather than weeks. This takes several variables into consideration like student absences or vacations, and homework coverage of a wider range of topics. Another limitation was that this study was shortened due to the Covid-19 pandemic. Schools were shut down after week two, so the study could not be completed according to the planned timeline. This created a lack of data which made forming conclusions about the success of the intervention very difficult. The lack of prior research on this topic was also a limitation. There were several studies aimed at determining the benefits of homework, and several studies on differentiated instruction in the classroom, but not specifically on the benefits of differentiated homework. The final limitation for this study was the sample size. The kindergarten classroom used consisted of only 20 students, and each leveled reading group consisted of 5-10 students, which was a very small sampling. When sample sizes are too small, it can be difficult to find significant relationships or patterns from the data.

**Recommendations**

The topic of differentiated homework and improving reading fluency in primary grades are relevant and important. One recommendation would be to study a larger sampling of students. Another recommendation would be to increase the intervention time to several months, as a few weeks is such a short time that it makes data interpretation difficult. Lastly, I would recommend that the researcher gather data on a more frequent basis over the course of the study, for example, every two weeks, rather than relying solely on a pre-assessment and a post-

assessment. Having more data checkpoints makes it much easier to interpret patterns and measure the overall success of your intervention.

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**Appendix A**

**Student Homework Packet Completion**

	Leveled Group	Week 1	Week 2
<b>Student A</b>	<b>Low</b>		
<b>Student B</b>	Low		
<b>Student C</b>	Low	X	X
<b>Student D</b>	Low		
<b>Student E</b>	Low	X	
<b>Student F</b>	Middle		
<b>Student G</b>	Middle	X	
<b>Student H</b>	Middle	X	X
<b>Student I</b>	Middle		
<b>Student J</b>	Middle		X
<b>Student K</b>	Middle	X	
<b>Student L</b>	Middle		X
<b>Student M</b>	Middle	X	X
<b>Student N</b>	Middle		
<b>Student O</b>	Middle	X	X
<b>Student P</b>	Middle		X
<b>Student Q</b>	High		X
<b>Student R</b>	High	X	X
<b>Student S</b>	High	X	X
<b>Student T</b>	High		X
<b>Student U</b>	High		X

**Appendix B****Number of 1G Sight Words Recognized in Pre-Assessment**

	<b>Number of Sight Words</b>	<b>Reading Homework Level</b>
Student A	0	Low
Student B	3	Low
Student C	6	Low
Student D	8	Low
Student E	8	Low
Student F	11	Middle
Student G	13	Middle
Student H	14	Middle
Student I	15	Middle
Student J	17	Middle
Student K	17	Middle
Student L	21	Middle
Student M	22	Middle
Student N	23	Middle
Student O	27	Middle
Student P	29	Middle
Student Q	32	High
Student R	41	High
Student S	46	High
Student T	60	High
Student U	60	High