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**CREATING A DIFFERENTIATE INSTRUCTION INTERVENTION TO
INCREASE READING COMPREHENSION AT THE SECONDARY LEVEL
FOR STUDENTS WITH LEARNING DISABILITIES**

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Submitted in partial fulfillment
of the requirements for the degree of
Master of Education
Moravian College
Bethlehem, Pennsylvania
2018

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Abstract

This mixed-methods research study aims to create, implement, and assess a differentiated instruction intervention focusing on reading intervention at the middle school and high school levels. Many studies have been conducted showing the benefits that differentiated instruction and reading comprehension interventions have for students at the primary grade levels in students' overall comprehension and along with other educational gains. This study explores the implementation of differentiated instruction and reading comprehension intervention at both the middle school level and at the high school level. All the participants used in the study were students with learning disabilities manifesting in reading comprehension as well as other learning disabilities for some of the participants. Methods of analysis include data collection from field logs over the course of the study, results from initial and ending standardized tests, student artifacts that were tracked using progress monitoring charts, student interviews, and surveys. Findings suggest that incorporating and re-teaching reading skills techniques at the secondary level improves overall comprehension skills in students with learning disabilities.

Acknowledgment

To my Dad – You have always been my rock, the one who pushed me forward, and the one I always and will forever look up to. I am so happy you are able to sit in the audience and watch me graduate with my Master’s degree. I love you ‘old man’.

To my husband, Jason – Thank you for playing ‘mommy’ on the many late nights while I was working hard running from work to graduate school. You pushed me to not give up when I wanted to most. I love you forever and always.

To my handsome little man, Derek, and my beautiful baby girl, Taylor – Mommy did this for the two of you, to show you that anything is possible and you can do anything you put your mind to even when you are beyond exhausted. You two are my inspiration and I want to thank you for being so patient with mommy when I was not home to tuck you in. But just remember, I was always there to kiss you good night.

To Dr. Dilendik -- I commend the time and energy you have spent on making my thesis the best it can be. Thank you, I greatly appreciate it.

To all my professors at Moravian College – Thank you for all that you have done to get me to where I am right now in my educational career. You all have made it as painless as possible.

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Researchers Stance

As a young child, I struggled all throughout my elementary school years to succeed in the classroom. Comprehending what was being taught to me in school was a difficult skill component of mine, and comprehension struggle was one that spread across all subject matters. Lucky for me, I was blessed with amazing teachers that helped me (and my parents) succeed and be a strong, successful student. I had teachers that were able to see how I struggled and in return took different steps in assessing and evaluating my progress in the classroom. Though I was never labeled as having a learning disability, I was a struggling learner in the classroom and that was my first personal experience in how it felt to be a young student struggling to comprehend.

Before teachers were able to see how my hard work in the classroom did not always reflect in my scores, I can remember my mom telling me the stories of how she and I would come home from work/school and we would sit for what seemed like hours struggling through classwork assignments. While my neighborhood friends would be dancing and playing outside my kitchen window taunting me to come outside, I would sit there in tears because I did not want to be inside the house doing school work. My mom would also be in tears due to frustration.

This hard work and dedication, on both our parts, did pay off in the end. When in high school, I would come home nightly, sit on the couch and not move until my school work was complete. I needed to work hard inside and outside the classroom to comprehend what I was being taught. I taught myself different strategies and ways to solve problems and get my work done and done correctly, but it did take time, effort, and was a struggle. Through these struggles and the distress, I felt throughout my schooling career, I knew exactly what profession I wanted to pursue once graduating high school. I left high school with honors, with a scholarship, and went off to college to pursue my teaching career. More specifically, a teacher of special education, to focus on the struggles and needs of students that faced the same anguish I did and help them succeed.

My first teaching position upon graduating from college was teaching special education in a middle school building. I was a co-teacher working side-by-side with a regular education teacher in reading, language arts, and mathematics classrooms on a daily basis. I saw firsthand how difficult reading comprehension was for many of these students. The strategies and tools the regular education teachers were using at the middle level were just not working for these struggling students and I could see the frustration and forlorn expressions overcome their faces. They were giving up. Being a new teacher at the time, I felt helpless as I did not know what further tools, skills sets, and aids were out there that could possibly be implemented to help them comprehend better. It was at that moment

that I knew something else had to be done. I just didn't know what. I just wish I dug deeper and knew the effects that differentiated instruction and reading comprehension intervention could have had on these students with overall incorporation in their classes.

Being a special education teacher and one that has taught in a wide range of educational environments, I have learned to adapt my teaching along with my way of assessing and evaluating my students based upon each individual student. No two people are alike so why should we treat assessments and curriculum building the same for each child?! Throughout the years of my teaching career as a special education teacher, I have seen an influx of students being identified with specific learning disabilities manifesting in reading and mathematics. While delving deeper into investing each student's case file, I saw a consistent disconnect when it came to student comprehension of materials presented in their classrooms. This disconnecting gap in this skill deficit is widening and therefore causing the vicious cycle of reading comprehension difficulties to carry across subjects and not just manifest itself in the reading, English, and language arts classrooms. With these findings and observations, I have decided to dedicate my study to building reading comprehension with the incorporation of the of differentiated instruction and reading comprehension intervention in the hopes to break this disconnect and fill these deficit gaps in struggling learners.

I know I cannot build a mountain out of an anthill, but this could be a step in the right direction. It is my hopes that with this study, and the few studies that I have come across in my research that incorporated differentiated instruction and reading comprehension intervention at the higher grade levels, the process will be utilized in middle and high schools to help build reading comprehension skills in those students that struggle with learning difficulties.

When I started at my current school district last year and started working towards my masters, we were asked to come up with a thesis topic. I just knew this was my chance to shine. The thought of conducting research and analyzing data in the hopes of proving that the implementation of differentiated instruction and reading comprehension intervention in classes for learning support students proved to be successful was motivating! Higher test scores, drastically decreasing reading comprehension struggles, and/or the possibility of dismissal of special education all together due to accomplishing goals set in IEP's. In the words of McNiff (2013) "Think carefully about the circumstances you are in, how you got here, and why the situation is as it is," (p. 25). These words resonated with me as I reflected on my own I struggled throughout my schooling with comprehension; how I see my learners struggling currently, why they are struggling, and what I would love to see them accomplish.

In the class I had at the middle school, at the start of my study, there were fifteen learning support students on my case load, 10 of whom had a specific learning disability manifesting in reading comprehension. Although not all had a comprehension goal specifically written in their IEP's, they all struggled in comprehension of some sort. I was a new teacher to the district and I did not know the procedures and protocols of this new class "intervention". There was no set curriculum, this was not a graded course, and it consisted only of my special education case load students. The only direction I received was that I was to be teaching remediation of math and reading to help the students prepare for the Keystone tests. Ugghhh... *NO* curriculum and *NO* direction on what to teach at all. How awful, or what it?!

Surprisingly, this turned out to be perfect. I connected with my students on a personal level, seeing first-hand what their strengths and weaknesses were in mathematics and reading through the incorporation of surveys and simple conversations. I implemented new progress monitoring probes which I used to measure their reading comprehension progress over time, and finally started my own action research by incorporating differentiated instruction and reading comprehension intervention techniques that I came across through my own extensive research. With that grew my interest in differentiated instruction and reading comprehension intervention incorporation at the middle school level because I began to see growth in comprehension scores over time. It was the start

to my research before I even knew how deep I was really going to get into the evolution and exploration of differentiated instruction and reading comprehension intervention to increase reading comprehension across courses and grade levels.

After being transferred within my current school district, I found myself going from middle level special education co-teaching in the English department, to the high school co-teaching in the mathematics department. My first thought, when it came to this action research project, was “oh my goodness, I just did all this work and all this research for nothing. How can I possibly use reading comprehension intervention at the high school level?” After my bit of a freak out (to say the least), I was reassured by my wonderful colleagues and professors that using the methods of differentiated instruction and intervention to increase reading comprehension can be effective, in all classes, at all grade levels. Although my initial study focus was geared seventh grade learning support students, my switch to high school still allowed me to conducted differentiated instruction and reading comprehension intervention at the high school level with participants in special education with learning disabilities.

Although this initial switch in teaching positons had me in a frenzy at first, and for some time, I now see it as a great opportunity. Conducting this action research gave me the chance to see the implementation of differentiated instruction and reading comprehension intervention at both the middle and high

school levels and I can compare findings from both levels. I want to take this time to thank my professors and colleagues who helped me see the light of what I thought to be a very deep, dark tunnel with no end in sight. I hope this research helps support the need for differentiated instruction and reading comprehension intervention to be carried out beyond the primary grade levels because students struggling with comprehension at secondary levels benefit just as much. Differentiated instruction and reading comprehension intervention has shown to help struggling learners, especially those in special education with specific learning disabilities.

Literature Review

Purpose of the Study

The purpose of my research is to assess the effectiveness of differentiated instruction and reading comprehension intervention in middle school and high school learning support classrooms. The research question that is driving this study is: *Will overall reading comprehension increase when differentiated instruction and reading comprehension intervention skills and techniques are implemented in a learning support classroom for struggling learners?*

Through the incorporation of differentiated instruction, reading comprehension intervention, and teacher designed reading comprehension probes, I am hoping to see an increase in students' overall reading comprehension scores. Student overall performance throughout the study will be further examined in the latter part of this research study. Available research related to the connection of reading comprehension and specific reading comprehension strategies will be identified. The definition of differentiated instruction will be offered along with the significance of differentiated instruction and reading comprehension intervention in classrooms. Lastly, important theories and concepts will be further elaborated on.

Differentiated Instruction

“Just as everyone has a unique fingerprint, every student has an individual learning style. Chances are, not all of your students grasp a subject in the same way or share the same level of ability.” (Weselby, 2017)

Definition

According to Weselby (2017), differentiated instruction may mean teaching material to all students using a variety of instructional strategies. It may require the teacher to develop and deliver lessons at varying levels of difficulty based on the ability levels of each individual student present in the classroom. When it comes to students identified as having learning disabilities, there are two approaches for selecting interventions; they are the standard approach which utilizes one research-validated intervention for all students with a particular type of learning difficulty, and an individualized approach which helps match interventions to students based on the individual student’s needs (Spear-Swerling & Cheeseman, 2012).

Tier 1

Tier 1 provides high-quality, research-based instruction to all students. Curriculum based assessments would identify students at-risk for not achieving in the general education with their peers, even with differentiated instruction (Davidoff, 2012). “All students in Tier 1 receive high-quality, scientifically based instruction, differentiated to meet their

needs, and are screened on a periodic basis to identify struggling learners who need additional support” (<http://www.rti4success.org/>).

Tier 2

Intensive research-based instruction and interventions are provided from a collaboration amongst staff members. This instruction and intervention may be provided in smaller groups in the classroom or in an alternative location in the school. “In Tier 2, students not making adequate progress in the core curriculum are provided with increasingly intensive instruction matched to their needs on the basis of levels of performance and rates of progress” (<http://www.rti4success.org/>).

Tier 3

“At this level, students receive individualized, intensive interventions that target the students' skill deficits for the remediation of existing problems and the prevention of more severe problems” (<http://www.rti4success.org/>).

History of Differentiated Instruction

Dating back to one-room schoolhouses, teachers had students of all ages in one classroom. As the transition to grading schools occurred, it was automatically assumed that children of the same age also learned the same. When

achievement tests were introduced in 1912, scores revealed the gaps in a student's grade level ability (Weselby, 2017).

Congress passed the Individuals with Disabilities Act (IDEA) in 1975, ensuring equal access to public education for children with disabilities. To reach the grade level gaps for all students, teachers began to use differentiated instruction. When No Child Left Behind was passed in 2000, this further encouraged differentiated instruction as well as skill-based instruction.

Significance of Differentiated Instruction and Intervention

“Effective intervention leads to more meaningful identification by accelerating the progress of many low achievers, thereby eliminating them from consideration as disabled”. (Fuchs, Fuchs, & Stecker, 2010, p. 302).

Evidence supports the beneficial outcomes for early identification and intervention for students in early grade levels (Denton, Fletcher, Anthony, & Francis, 2006). Overall findings suggest that students who have reading difficulties should indeed continue reading interventions beyond elementary school grades (Solis, Miciak, Vaughn, & Fletcher, 2014). Research shows a positive correlation between younger students and the impact from early interventions as a necessary means of a well-developed reading approach. This study also found that contrary to interventions with younger students where younger students work through tiers, older students can be assigned to more or

less intensive interventions based on their current reading achievement scores (Fuchs, Fuchs, & Compton, 2010).

Effective implementation of instructional interventions remains limited in many schools for reasons such as practicality, availability of resources, and systematic factors (Lentz, Ellis, & Scanlon, 1996). Once students enter into junior high school, typically there are fewer resources directed to assessing and intervening in reading, or teaching students strategies for reading across curriculum (Ehren, 1994). Students with learning or reading disabilities fall further behind each year by mastering perhaps only three-fourths of each year's content of instruction. At the entry level of junior high school, students with LD tend to plateau at the fourth or fifth grade level in their reading skills (Alley & Deshler, 1979). Differentiated instruction and intervention can address the needs of struggling learners, prevent labeling, and avoid a history of school failure (Sanger, Friedli, Snow, Brunken, & Ritzman, 2012).

Reading Comprehension

Definition

The term 'reading comprehension' comes with an abundant array of definitions as demonstrated by Kimberly Tyson in her blog from May 2014:

1. Comprehension is a process in which information from the text and the knowledge possessed by the reader act together to construct meaning.

2. Comprehension is the ability to decode printed text and recognize and understand words. Word recognition is a foundation of reading.
3. Comprehension is the transacting with text in order to create meaning from it.
4. Comprehension is the process of constructing meaning through the dynamic interaction among: (1) the reader's existing knowledge; (2) the information suggested by the text being read; and (3) the context.
5. Comprehension is the act of constructing meaning through interaction and involvement with written text. Comprehension involves an interaction between the reader, the text, and the activity.
6. Comprehension, as an interactive process, occurs largely within a socio-cultural context that shapes and is shaped by the reader's background knowledge and experience, purpose for reading, information available in the text, and the activity or context in which the reading occurs.
7. Comprehension is the thinking done before, during, and after reading.
8. Comprehension is the intentional thinking during which meaning is constructed through interactions between the text and the reader.
9. Comprehension is a dynamic process in which information from the text and knowledge possessed by the reader interact to enable the reader to construct meaning before, during, and after reading (Tyson, 2014).

Reading comprehension has also been defined as a process of constructing and extracting meaning from written texts. This is based on complex coordination of a number of interrelated sources of information (Mastropieri & Scruggs, 1997).

Significance of Reading Comprehension Intervention

Research indicated that expository texts, which are texts written to communicate information that helps readers learn something new (Weaver & Kintsch, 1991), is much more challenging than narrative reading for students with learning disabilities (LD) (Berkeley, Mastropieri, & Scruggs, 2011). A majority of time is spent reading expository texts as a student enters into higher grade levels, however, reading skills are not carrying over. Students with learning disabilities have poor comprehension skills due to failure to read and monitor their understanding of what they have just read which indicates a breakdown in processing. With more effective and efficient strategies, students with LD can learn and apply skills on their own. Effective components of reading comprehension strategy (RCS) include teacher modeling of strategy steps and using the strategy in cues. These reading comprehension strategies are delivered in the form of differentiated instruction therefore making an important and distinct connection between differentiation and overall reading comprehension. The recommended instructional frameworks for RCS as outlined in Berkeley et al. 2011 are as follows:

- clearly state objectives
- follow a specific sequence for teaching with a stated purpose of the lesson and explicit instructions
- inform the students of the purpose of the strategy
- monitor student progress
- encourage the students to think about the text and strategies
- encourage appropriate attributions
- teach for generalized use of the strategies (p. 19)

With the incorporation of reading comprehension strategies for students with LD, overall findings showed that there was a benefit in terms of learned content and the development of higher level thinking about reading. Overall greater strategy awareness and improved reading comprehension was demonstrated (Berkeley et al. 2011). Upon further research, it has also been proven that when students are exposed to age appropriate texts their experience in vocabulary-rich text increased along with an increase in their comprehension (Shurr et al., 2012).

Teachers' Key Role in Differentiated Instruction and the Intervention Process

Differentiated instruction is a term that is heard more and more these days as a means to close the achievement gap. Intervention was authorized by the Individuals with Disabilities Education Act (IDEA) brought about in 2004 by No

Child Left Behind (NCLB). Teachers of English and language arts play an important role when it comes to response to intervention. They are the “...critical go-betweens for students and services that they receive”. (Shanklin, 2008). Under tiered intervention, the classroom teacher is the one to recommend students for appropriate interventions all while having the responsibility to deliver classroom-level interventions themselves. Classroom interventions can consist of workshop time, small groups, and/or centers. The interventions laid out and delivered in the classroom setting are dependent upon individual student needs. Not all intervention may work in a classroom setting and what may work one year may not do so the year to follow. Recommendations from other professionals that implement response to interventions in their classrooms is key in building a sufficient differentiated instructional classroom environment. When differentiation and intervention is well-conceived, it can be an important tool in which the classroom teacher can play an important role (Groenke & Scherff, 2008). Differentiating instruction and interventions do require a considerable amount of time, planning, and commitment from all educators in order to be successful such as designing lessons based on students’ learning styles, grouping students by shared interests or abilities for assignments, assessing students’ learning through formative assessments, manage and support a safe classroom environment, and continually assess and adjust lesson content to meet students’ needs (Weselby, 2017).

Significant Studies

In 2006, a study was conducted and found that some researchers have estimated that 90% of all students classified as learning disabled are reading disabled. Most students who are classified as having LD are unable to read competently at grade level (Mothus, T.G. & Lapadat, J. C., 2006). This particular study used information from the databases of two junior secondary schools in the province of British Columbia, Canada, a small city serving working-class neighborhoods. Pre- and post-reading comprehension subtests scores were assessed. The researchers evaluated the effect of a strategy intervention to increase the reading comprehension of eighth grade students with reading disabilities. The study took place over a year and the main purpose of the study was to evaluate the effectiveness of their intervention. Findings from the study showed the support of using intervention to improve the reading comprehension of students with reading disabilities. Not only did student comprehension increase, but the study also demonstrated that the intervention can be implemented effectively within the context of daily classroom instruction in a junior high school (Mothus et al., 2006).

A case study conducted by Legere and Conca in 2010 tracked a student who was already classified as having a specific learning disability. They tracked the student's reading achievement for over a one-year time period. This student

was offered supports by both the general education and special education teachers daily using a three tiered approach of the response to intervention process. With flexible supports, targeting specific skill deficits, and utilizing multiple professionals, this student made considerable growth over time according to the study's findings (Legere & Conca, 2010).

Though secondary school the intervention model approaches are more limited, I was able to find a few conducted at the middle level grades. In 2011, Wanzek, Vaughn, Roberts, and Fletcher conducted an experimental study which took place over a year. The study focused on the effects of reading intervention at the middle school level with students identified with learning disabilities compared to similar students who did not receive the reading intervention. Both groups were analyzed using the scores they received on the various test administered throughout the study. Group (a) were the students that received reading intervention and group (b) were those students that did not receive reading intervention. Data were compared to show growth, simulation, and comparison amongst each other. The study found that intervention proves to be a recommended practice that helps increase performance amongst students with learning disabilities. Overall, this study showed an increase in letter identification, word attack, passage comprehension, sight word recognition, and phonemic decoding in the students that received reading intervention compared to those that did not (Wanzek et al., 2011).

A study conducted by Vaughn, Wexler, Leroux, Roberts, Denton, Barth, and Fletcher in 2012 looked at the effects intervention had for 8th grade students with pervasive reading difficulties. The study was conducted over a year and took place in a small-group, intensive reading intervention classroom. The purpose of the study was “to address the need to better understand (a) the effects of intensive interventions on outcomes for secondary students with reading difficulties and disabilities and (b) the effects of reading instruction provided to secondary students with RTI framework.” (Vaughn et al., 2012, p. 516-517). The Texas Assessment of Knowledge and Skills (TAKS) assessments were used to determine which middle school students would be chosen for the study. Once subjects were chosen, test scores from various tests were gathered and charted (pre- and posttest scores) and then scores were compared amongst the treatment students. Students were provided with a 50-minute reading intervention class during an elective period. Comparison students did not get intervention and participated instead in their elective. Throughout the study, bi-weekly progress monitoring of students was gathered along with student interviews. Findings showed that for the treatment group, there was a general pattern of improvement on all measures from the pretest and posttest. In the comparison group, means at posttest were lower than pretest means. When students were interviewed at the end of the study to determine their views on the reading intervention and their own interest in being better readers, they responded that they were interested in

learning to understand what they read and enjoyed participating in the reading intervention class. Overall, the study supports the practice of providing intensive remediation for adolescents with intractable reading difficulties and disabilities (Vaugh et al., 2012).

Summary

In review, findings from various studies support the efficacy of using differentiated instruction and intervention to help improve reading comprehension of students with learning disabilities.

Methodology

Research Goals

As an educator in the field of Special Education, and one that is faced with students who struggle in their learning due to varying learning disabilities, especially in the realm of reading comprehension, I wanted to incorporate a study that would all around benefit this disability category. I see my students struggle with comprehension across curriculums. My goal was to design an intervention based on differentiated instruction to increase reading comprehension for secondary education students with learning disabilities.

Setting/Participants

I teach in a small, rural school district in Eastern Pennsylvania. When it comes to the student body population, 90.2% of the students are Caucasian, 5.1% are Hispanic, and 2.6% are African American. 54% of the study body are males and 46% makes up the female population. This district does have a large population of economically disadvantaged families with an average of 31% of the students receiving free lunch, and another 6% receiving reduced lunch. When it comes to those students who receive Special Education services, 16.9% of the district population are enrolled to receive such services based on varying disabilities ranging from learning to emotional needs.

My study was first conducted at the middle school. The middle school had an enrollment of approximately 451 students in grades seventh and eighth. My case load consisted of 13 seventh grade students. Each of the students was classified as having a learning disability in mathematics, reading, writing, and/or behavioral deficits and received Learning Support per their Individualized Education Plan. For my study's purposes, I included data collected on three of my 13 students; one female and two males, all of whom had a disability in reading comprehension and were not performing on grade level.

The classroom at the middle school was very small, consisting of one teacher's desk located in the back of the classroom, one large table at the front of the room, and 13 student desks arranged in three rows facing the front of the room. There were no windows as the classroom was located between two rooms in the center of the building. There were two doors in the room. One entered into the hallway and the other was an adjoining door connected to another classroom. At times, because there was the adjoining door, the volume from the other classroom would spill into my room causing my students to become distracted, however, overall, the room was not loud and was one that students could work quietly in.

The second setting where my study was conducted took place at the high school building. In this building there are approximately 1,101 students in grades

ninth through twelfth. My case load at the high school consisted of 16 students in various grade levels. For the purpose of my study, I chose to focus on six of the 16 students; one female and one male at the ninth grade level, one male at the 10th grade level, one male at the 11th grade level, and one male and one female at the 12th grade level. All six of the students were receiving Learning Support services following their Individualized Plans and ranged in varying disability categories and returned their permission slips.

My classroom at the high school was a much larger room which I shared with another teacher. There were two student computers and two teacher computers. There were two teachers' desks located on opposite ends of the room from one another and five rectangle tables with four chairs at each used for students to work at. There were two large windows in the room. The temperature of the room always ran on the hotter side which students complained about on a daily basis. Not only was the temperature a distraction, but since this was a shared room, there were numerous students present at one time making for a noisier environment.

Data Sources

Upon submission and approval of a proposal from Human Subjects Internal Review Board (HSIRB) of Moravian College based on email confirmation, I made sure to receive permission from my school board (Appendix

A) and building Principal to conduct the study (Appendix B). Although I taught differentiated instruction and reading comprehension intervention to all the students on my case load at both the middle school and high school, I only used the data from those that I received parental consent (Appendix C) and student assent forms from (Appendix D).

For this research study, data were collected using an array of sources including surveys, interviews, student artifacts, field logs, and standardized tests. Throughout the study there were varying mini lessons taught centering around reading comprehension skills and strategies. Since I did not have my case students with me for entire periods, I conducted my lessons in small groups during their intervention period and not in their regular education setting. During our mini lessons, students were required to read varying texts, discuss the text in their small groups and aloud with all their classmates.

Surveys. Prior to beginning my study, students were given a questionnaire based survey to help me gain more knowledge and understanding of their opinions on reading, their own comprehension abilities, what skills they already knew, and what skills they felt they were lacking when it came to comprehension (Appendix E). Although I had a pretty clear picture of all of them based on the previous data that was collected and documented in their IEP's, I wanted to gain an understanding of where they felt they currently were. I used the results of the

survey, along with the results from their IEP's and previous data collection, to design my differentiated instruction and reading comprehension intervention instruction.

Interviews. Interviews were conducted throughout the study. Prior to beginning instruction and lessons, I interviewed with their previous teachers and case managers to gain a better understanding of each of my participant's comprehension strengths and weaknesses. I conducted individual interviews with my students to gather information on where they felt they needed the most help and what skills they felt they lacked. I met often with each student one-on-one to discuss their progress along the way. I also interviewed their current teachers to gain a better understanding as to what they were seeing in their classrooms when it came to comprehension abilities. These interviews helped provide feedback to guide further instruction necessary to build comprehension skills.

Student Artifacts. Throughout the study, the students participated in individual and group discussions. They completed reading probes on their specific grade level which were used to track their progress made in reading comprehension over time. Tracking each individual's reading comprehension score through the use of the probes helped show whether or not their overall comprehension was improving. Work samples were gathered from their teachers. All of these artifacts helped form their formative and summative assessments. The

work sample, discussions, and probes helps guide and modify the reading comprehension intervention implementation throughout the study.

Field Logs. Field logs were used to record classroom observations and also helped track discussions that would take place in the classroom in regards to comprehension. Direct quotes from the students were recorded and notes were kept throughout the study to interpret and record their interpretations of the subject matter they were being presented with and how they were handling and comprehending the matter.

Standardized Tests. Each student was given a Pearson Reading-Level Indicator (RLI). This was given once in the beginning of the study and again at the end of the study. The results provided me with each student's current instructional and independent reading levels. The results were analyzed and comparative data were collected to show improvement, stagnation, or regression of the student's reading levels from before differentiated instruction and reading comprehension intervention was to the conclusion of my study, post instruction and intervention implementation.

Trustworthiness Statement

To ensure validity and trustworthiness of this study, prior authorization from Moravian College's Human Subjects Internal Review Board (HSIRB) was first obtained. Following Moravian approval, I sought out permission from my school district's superintendent and school board members, my building principal, the parents of all my participants, and my participants themselves. (Appendices A, B, C, D). The letter clarified that all documentation and data used in the study would be kept strictly confidential, and pseudonyms would be used to mask personal identities. The consent letter also addressed that all information would be kept safe and secure, and then would be shredded upon completion of the study. The letter also explained that participants could withdraw from the study without penalties at any time for any reason.

It was important for me to make my participants well aware of the study in which they were about to participate. In detail, I explained why I was conducting the study, what the intent of the study was, and how I would be talking with them about their feelings towards their comprehension all while observing throughout. I further informed my participants that I would be collecting a wide range of work samples from them. I shared with them that my intent on conducting this study was to increase their reading comprehension and further improve comprehension

across curriculums. I wanted them to feel comfortable and to enjoy the study along the way.

In order to ensure that the research design and methods of my study were sound and just, I utilized a strategy addressed by Hendricks (2009) where I utilized my colleagues to debrief and present my interpretations of the data that was collected in order to receive opposing viewpoints through which to draw conclusions. Through this process, I was able to receive trusted feedback that further helped construct a valid and trustworthy study.

To further establish trustworthiness throughout my study, I used what Hendricks (2017) refers to as triangulated data sources (p. 64). I maintained a comprehensive field log in which I recorded observations of what I saw and heard in my classrooms and made sure to keep my own opinions out to stay objective. Data from these field logs included various types of entries including both participant and non-participant observations, student interviews, and various work samples. I made sure to keep the data that was collected from my personal opinions. To ensure this happened, data were recorded accurately and promptly while using member checks throughout to further ensure that the observations I recorded were accurate. Through this process, I was able to keep my observations credible and helped reduce my own interpretations as I recorded student comments (Hendricks, 2017, p. 65). I was careful in my awareness so as to not

form my own biases regarding the study and to not allow them to have an effect on my judgement or expectations on the overall outcome of my study. To further help offset any biases in the reporting throughout the study, the observations recorded included negative case analysis as I recorded both negative and positive case analysis as well as experiences that did not work (Hendricks, 2017).

Acknowledgment of Researcher Bias

Throughout my study, I needed to keep in mind the biases that may have taken place. Though I, myself, believe that incorporating differentiated instruction and reading comprehension intervention at the secondary will prove to be beneficial, I need to recognize that my students may not share the same feelings towards the matter. I am a special education teacher who has used my students as my participants. With that, my students come from varying disability categories, from varying grade levels, and from varying home and educational backgrounds. All these factors play a role in the biases that may be present in my findings throughout my study. Though I have recorded data from varying students, I did so in a way to ensure that all reports of my findings on student achievement did not impose on what my initial impression would be.

My Story

How This All Got Started... Middle School

While sitting in my graduate level class, thinking about a “topic of interest” that I could utilize in my classroom to help improve student performance, I was also in the midst of transitioning from one school district to another. At the time, I had no idea what my new students would be like, what their current academic standings were, or if they were even going to be the type of students that would sign off to be my participants for any of this new intervention. Let’s put ourselves in their shoes... a brand new teacher and case manager, and one that shows up all of a sudden four days before the end of the first marking period. Trust issues? I would think so. Then I approach them, after a week or so, with a new proposal and class dynamic. *“Really Miss? You have got to be kidding me right now?! First off, we have transitioned from the intermediate school to the middle school. Most of us are barely passing the first marking period. We have NO idea who you are. And now you want to change up our routine? This is going to be fun!”* This is what I imagined was in their heads as I was about to deliver the news.

“Heads down and no peeking. Put your hands up if you feel like you struggle to comprehend what certain things mean when you read them in class.”

All but two hands raise... the two that are peeking around the room to see if anyone else followed my directions. Once they saw that they were the only two with their hands not up, they followed suit and slowly raised their hands as well.

“Thank you. You can put your hands down now. I have another question, same rules, no peeking and raise your hand if you agree. When you are in math class and you come across a word problem, you feel like you do not know where to start because you really do not understand what the question is asking you.”

All hands shoot up so quickly their bodies nearly lift off their chairs.

“Thank you. You may put your hands down and your heads up now. I want to share something with you all. I am a student, just like all of you. I go to college every week after work and have to do assignments like all of you have to do here in school. In my class, I have a project that I need to do and I am wondering if you can help me out with it?”

One student asks, *“Do I have to do extra work?”*

Another, *“Does it count towards my grade? If so, I’m out.”*

Yet another student chimes in, *“Dude, shut up and let her tell us about it before we ask her questions. Gezz! Go ahead Mrs. B, I want to hear about your project.”*

Myself, *“Thank you. My project that I want to conduct in this classroom with all of you will hopefully help increase your overall reading comprehension in all your classes. I asked you the questions just before to see if you guys would be the perfect candidates to do this project with and it turns out, I think you are. And if you want to, and it’s okay with your parents, you can even be in my study when I write my paper about you!”*

Female student, *“OMG... I am totally in! Can I have a paper please? I want to do whatever to be in your paper. Will I be like famous or something?”*

I respond, *“Hold on just a minute. You have no idea what the project entails. Would you like to hear about it first so you know what you are getting yourself into?”*

(Heads nod up and down.)

“I am going to look at your current comprehension skills, ask you some questions throughout the study, and even ask your teachers some questions to see just what skills and strategies you currently master and which skills and strategies you need to work on to build your comprehension background. What I am going to implement in the classroom, with all of you, not only the ones that end up being in the study, is something called differentiated instruction and reading comprehension intervention. Differentiated instruction and reading comprehension intervention has shown to be very successful when implemented at

and helps students increase their overall comprehension levels over time. This is where I would like to have you help me out to show how implementing differentiated instruction and reading comprehension intervention in this classroom affects your comprehension over time.”

I passed out parental permission slips to each of the students. I read aloud the form to them and asked them to please give it to their parents/guardians and to have it returned to me by the end of the week. Once I received parental permission slips signed stating that their child could participate in the study, I gave each of those students a student assent form to read and fill out. In all, I only received three signed permission slips back granting me permission to use the data that I collected from their child in my study. Although I implemented differentiated instruction and reading comprehension intervention in the classroom with all my students, I only used the three that I received permission from to include their data in my study.

Meet My Kids!

I'm going to introduce my three middle school students to you that were participants in my study. They were all so very different, yet shared one big similarity: their struggle with reading skills and comprehension.

Take my first student, *Jake*. Jake was the kind of kid that teachers dream of having in the classroom, especially in middle school teachers where hormones

run rampant on a daily basis. Jake kept to himself, though he had many friends throughout the middle school. He played sports, tried very hard in school, asked questions when he had them and wasn't afraid to do so. However, when looking at Jake's data collections prior to conducting my study, Jake's results were all over the place! He would score borderline proficient when it came to his state assessments; however, his previous progress monitoring data showed him performing all over the place inconsistently when comparing his baseline score to his goal performance level. Jake was the kind of student who actually tried on his progress monitoring probes as he always wanted to excel and accomplish his goals. Another important aspect about Jake that I found out while looking at his previous IEP data is that he was just identified as a student with specific learning disabilities manifesting specifically in reading comprehension at the end of his sixth grade year. His current performance level had him functioning at the fifth grade level. The question that went through my mind was, why was he diagnosed so late? Why was he diagnosed at all since he clearly shows he can overcome this "disability" with hard work and practice? Hmm!!

Student number 2, *Henry*. Henry was a socioeconomically disadvantaged student living in a one family household. Henry lived alone with his mother and no other siblings or father present in his life. Unlike Jake, Henry did not have many friends and was somewhat of a loner but also a big time people pleaser. There were a couple times throughout the study that I caught Henry lying to me

about completion of homework or completion of classwork. When I informed him that I knew the truth, he would sulk, try to cover up his story, or claim that he “did not say that”. Then I was on Henry’s bad list for a little while and I would get the “evil look” or no eye contact at all in some instances. Henry was very afraid when his mother had to be called, something I tried hard not to do unless I truly needed to. Henry’s mother was not mentally well and took her anxiety and illness out on him. Often, she claimed that he was “ill” and took him to the doctor to be prescribed yet another medication. Overall, Henry was a great kid, and although he had his quirks from time to time, he was a great participant. When it came to his disability classification, according to his most recent Reevaluation Report and IEP, Henry was classified as a student with specific learning disabilities in the areas of math application, math computation, reading fluency, and reading comprehension. For the purpose of this study, I focused on increasing his comprehension from the current performance grade level of fifth.

Last, but certainly not least was *Ashley*. Ashley was the lowest functioning with a third grade reading level at the start of the study. Ashley was a very sweet and caring girl, however, she LOVED her drama and her boys. There was not a single day that went by over the course of the study, and the school year for that matter, that there was not some sort of drama occurring in her life and most times, she chose me to be her confidant. Although I am proud that she trusted me, boy drama just is not something I wanted to delve into at the middle school level.

However, I was a constant in her life when there did not seem to be many, so I grinned and bared all that came out of her mouth and gave the best advice that I could.

Ashley came from a broken home. Her birth mother passed away a few years prior and her maternal father was not allowed in the picture. She was being raised by her maternal uncle and aunt and I believe they were doing a fantastic job with her. They were always up to date with her grades and progress in school and came to every meeting, school events, or conference held. Long story short, although I do not want to speculate or get into much detail, I believe that a big factor leading to Ashley's learning disabilities had to do with her mother's drinking and taking drugs throughout the pregnancy with Ashley as stated in her school records. Ashley is identified as a student with specific learning disabilities in the realm of math computation, math application, and reading comprehension. Ashley also suffers from psychological disabilities as a result of her traumatic younger childhood before she was adopted by her uncle and aunt.

How This All Got Started... High School

After I completed almost one year's worth of data collection incorporating differentiated instruction and reading comprehension intervention at the middle school, I found out towards the end of the summer that my teaching position would be moved to the high school at the start of the new school year. Although I

was very excited about the switch in positions, the thought of my research study came flashing across my mind... *“What am I going to do now? I have done all this work just to throw it all away and start over.”* However, this move proved to be most beneficial when it came to adding even more data regarding the effectiveness of differentiated instruction and reading comprehension intervention at the secondary level. I would now be able to gather and interpret data from both my middle and high school students. There was just one problem. I had no idea if my new case load students would be willing to help me out with the continuation of the study.

When I arrived at the high school and got to meet my new case students and they got to know me a little better, it was time to introduce them to my study and gather new participants. Just like at the middle school, I explained that I was a student just like them, that I was working towards my Master’s Degree in Education, and that I needed their help with a project that I was conducting. At first no one spoke, no one made eye contact, and no one showed a spark of interest. So I chose to go about it at a different angle. I spoke to them one-on-one, independently, and did not address them as a whole. Each conversation went as follows:

“Ok, so what questions do you have for me regarding my project? Do you think you would want to know more about it and possibly help me out? In no way will this be more work for you and in no way will this affect your grade.”

Mostly all of them asked the same question: *“What do I have to do for your study? Will I miss any of my classes?”*

In response, I answered that I would be looking at the previous data collection to see where their current comprehension abilities were. I also shared that I would be giving them questionnaires and gathering information from them along the way. I explained that they would not be pulled from any of their classes and that all data would be conducted and collected with me in my classroom at the most convenient time that their schedules allowed.

Unlike at the middle school where I taught only seventh grade and conducted my RTI study during their Intervention period held daily with me, at the high school I had students that ranged from ninth through twelfth grades. I did not see my students daily and therefore conducted my study during homeroom and their fifth block scheduled times. I had students that attended either morning or afternoon Career Institute of Technology (CIT) and therefore were only present in the high school setting for two out of the five blocks.

Upon further clarification of my differentiated instruction and reading comprehension intervention project and what would be required of them, I gave

them all a parent/guardian permission slip and read aloud to them so they could explain the study to their parents/guardians when they gave it to them. I received more slips back from my high school students than in the middle school with a total of six. When I received those six permission slips agreeing to having their child participate, I gave those six a student assent forms to sign. Like my middle school students, I incorporated reading comprehension intervention skills and strategies with all my case students to help with their reading comprehension, however, the only data that will be displayed in my study will be from the six students that granted me permission to do so.

Meet My Kids!

9th Grade: I will start with my ninth grade student participants that were nice enough to partake in my study. Meet *Josh*. Josh is definitely my one student that did, and still is, giving me a run for my money. At the time of the study, Josh was classified with the primary disability of specific learning disability in math, reading, and writing along with other health impairments by virtue of attention deficit hyperactivity disorder (ADHD) and a secondary disability category of emotional disturbance. Since the study concluded earlier this year, Josh's classification has changed due to escalating behaviors and he is now in an emotional support placement. Although Josh's behaviors did have a profound impact on his learning, he was a fantastic participant to have for my study. Josh

and I made an instant connection as I was someone who was there to help him out at all times, even when he would get himself into trouble. He soon realized that I never let his behaviors outside of the classroom impede my respect towards him and that is when he began to truly trust me and open up. Josh did everything that I asked of him without any hesitation and really helped me gather significant data on him.

At the time of the study, Josh was only functioning at the third grade level for both math and reading. Third grade level and in the ninth grade, wow, no wonder Josh was acting out. He needed serious academic help and he was asking for it, just not in the proper manner, but in the best way he knew how: by acting out! Due to Josh being on such a low performance reading level, he and I worked a lot one-on-one as I needed to read most of the material to him.

Abby was my other ninth grade participant. Abby is currently being raised by her father as her mother is no longer in the picture. Abby is a very shy young lady who does not have much confidence in herself or her abilities. Abby is classified as a student with a specific learning disability in the areas of math application (fifth grade level) and reading comprehension (seventh grade level). She was also classified as having a secondary disability in speech and language support; however, she has been dismissed from speech since the conclusion of my study. Abby was my one participant that always sought perfection. Although she

was very low in her academics, she always tried to the best of her ability. Abby worked best with me one-on-one because she was very easily distracted by the noises around her, especially when reading. I worked best with Abby, throughout my study, during homeroom as I was able to dedicate more time to her if she needed. I also had her as a student during her block one class.

John was the only 10th grade participant in my study. John was a second year repeat for 10th grade. John is classified as having a specific learning disability in the area of reading comprehension, and at the time of the study was only functioning at the fifth grade level. John was a very likeable student. He had a fantastic personality and was one that would joke and take a joke; however, he knew when it was time to get down to business. John was a student that also attended the Career Institute of Technology (CIT) and therefore he was only present in the high school for the latter part of the school day.

I only had one 11th grade student participate in my study. *Albert* was a student diagnosed with the primary disability of Autism and secondary disability of specific learning disability in the areas of math and reading comprehension. At the start of the study, Albert was functioning at the fifth grade mathematics level and sixth grade reading comprehension level. Due to Albert's Autism diagnosis, it took some time for him to open up to me as I was someone new in his life and he needed to trust me in order to start conversing with me on a more personal. Albert

did not like having the classification of Autism and was always embarrassed when this would be brought up during meetings. He comes from a single family household of just him and his mother. His mother is very supportive and willing to help her son in any way she can. Albert was a very bright young man and tried very hard to succeed in school. When he did not come in on top, he would get very upset with himself which was very evident in his mannerism and facial expressions. Albert would dwell on what others may consider minor things. For example, when playing a round of *Around the World* in his mathematics class to review multiplication facts, he did not come in first place and got really upset.

I had two amazing seniors that helped me out greatly for my study. I was not expecting any of my seniors to participate as they are in their last year of school and usually as seniors, they check out!

My first senior I want to introduce is *Adam*. Adam is another student that is diagnosed with the primary disability of Autism. However, unlike Albert, Adam is much higher functioning. Along with the primary classification of Autism, he has a secondary disability in the realm of reading comprehension in which he is only functioning at the sixth grade level. Adam comes from a wealthier family in which his mother is a teacher in a neighboring district and his father runs his own welding company. Currently, Adam is attending the Career Institute of Technology (CIT) and studies welding in order to take over the family

business one day. Since I only saw Adam at the beginning of the school day, I worked one-on-one with him during homeroom. He was always willing to get down to work and accomplish anything that I asked of him. Yet, that was after he was finished telling me stories. Adam loved to talk my ear off!

Last, but not least, is *Brittany*. Brittany was one that I would classify as a “popular kid” within her grade level. She had many friends, very active social life, and was always one to be up-to-date with the latest gossip flying around school. Though Brittany was only functioning at the seventh grade reading level based upon her current identification of specific learning disability manifesting in reading comprehension, she always tried her hardest and always completed the work asked of her in all her classes. Brittany’s grades were always passing, however, she was never one to go above and beyond. Brittany would only complete what she needed to and nothing more.

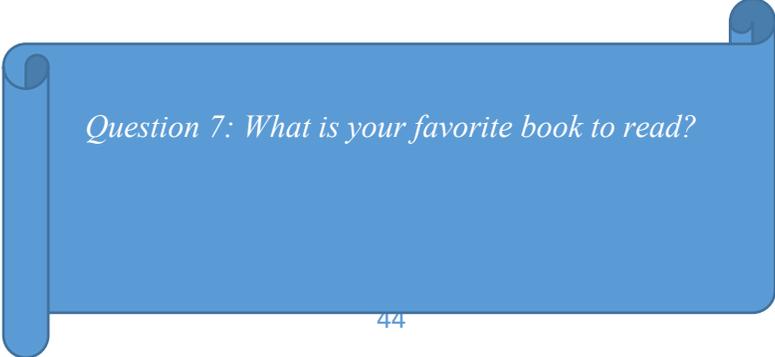
One Size Does Not Fit All – Differentiating Instruction

My study involves working with students with varying disabilities, abilities, and learning styles. In order to reach each individual learner in my study, and to effectively develop each student’s overall comprehension levels, my instruction needed to be tailored to their specific needs. I needed to implement reading instruction in small groups or on an individual basis depending on the student, their needs, and also what their schedules allowed. To aid in quality

classroom instruction, I needed to adapt my lessons and instructions and teach specific skills and strategies that students need to learn based on their assessment data that was gathered prior to my study beginning and throughout the implementation of my study. Students' learning is monitored throughout my study closely so I can assess what skills and concepts may need to be retaught.

Initial Data Collection (Middle School)

During the first week of implementing my study, I needed to gather more data and feedback from my students regarding their reading styles, likes and dislikes, and their overall feelings towards reading. I was conducting this study during their Intervention period which I had with them on a daily basis for forty-five minutes. To begin, I gave them each a *Reading Interest Survey* (Appendix E). The data in table 1 shows the breakdown of the students' answers. Most of the reading material they receive comes from online or from their teachers in the form of reading assignments and not from material they might read for enjoyment. When it came to the kinds of books my middle school participants enjoyed reading, mystery, fantasy, and humorous stories came out on top. The last two questions and responses of the reading survey given by each of my three participants are listed below in table 1. The questions read as following:



Question 7: What is your favorite book to read?

Table 1 – questions 7 and 8 of Reading Interest Survey with responses.

Participants (pseudonyms)	Response to question 7	Response to question 8
Jake	<i>“I guess my favorite thing to read are plays because they are short and I can sort of see them play out in my mind as I read. But nothing hard like Shakespeare because I cannot understand that crap at all.”</i>	<i>“I do not like to read anything involving history or what happened in the past. I think it is boring and I am soooo not interested in it.”</i>
Henry	<i>“I do not have a favorite book cuz I really don’t like reading at all. I barely read my stuff here at school”</i>	<i>“I really do not have a least favorite as I guess I am up to read anything. I really don’t like reading so I guess it doesn’t really matter to me.”</i>
Ashley	<i>“I don’t have a favorite book but I do like to read a lot of magazines. There’s so much juicy gossip in them and lots of pictures.”</i>	<i>“Ummm I guess my least favorite books to read are the ones about sci-fi. That stuff is so stupid and so fake.”</i>

The results of this survey helped me gear the reading material I incorporated in the classroom to help build their overall comprehension. I wanted to make sure to gather reading material that would be most enjoyable for them to

help spark their interest and keep their attention so that I could gather the most accurate data for my study as possible. The results of the student survey were somewhat shocking to me when I looked at each of my student's responses. Another aspect that I found interesting was that it was unanimous, all students preferred reading texts that contained real photographs over drawn pictures. *Well huh!*

Upon gather reading material based on each student's current grade level, I broke the students into groups based upon coinciding current performance grade levels. For example, prior to the start of the study, both Jake and Henry were performing at the fifth grade level when it came to their reading comprehension retention even though both student were in the seventh grade. Each group was given a reading probe at their specific group's grade level. Each probe consisted of a short passage along with varying questions of comprehension, author's purpose, making predictions, and applying inferences for a total of 10 questions. During this first probe, I did not incorporate or address any reading skills or strategies and I was still in my baseline data collection mode regarding the skills and strategies they currently knew and those that needed to be revisited. The assignment was to first read the probe on their own and independently complete the answers. Once the group members were finished, they were to quietly compare their answers. None of the students were given the correct answers at this point, so it was up to them to try and justify why they were correct by using

skills and strategies. Once each group was finished discussing, I passed out the answer sheets so they could compare their answers.

While the other groups were discussing and marking their corrections, I sat in with my participant group to get some feedback regarding the probe they just read and the questions and answers that were present. The students were all given the same theme, which happened to be about Valentine's Day, as the probe was given on February 14th. When I asked the group what they thought about the passage they read, Henry replied, *"This is so dumb. Valentine's Day is stupid."* Jake chimed in, *"I know, I hate Valentime's [sic] Day. I hate it because I don't have a girlfriend and everyone else does. My mom made me wear this stupid shirt [he was wearing a pink polo t-shirt]."* I replied, *"Does that mean you do not like the reading passage that was given this time?"* Both Henry and Jake responded in agreement that they did not like the passage due to not liking the Valentine's Day holiday. *Note: Jake scored a six out of 12 on the questions and Henry scored a four out of 12. This was typical performance for both of these students. There was no evidence that the dislike of the article had anything to do with the score they received.

Initial Data Collection (High School)

I did not conduct a *Reading Interest Survey* with my high school students. I went ahead and gathered data to find out their likes and dislikes regarding their

reading interests and their reading habits in a more informal fashion. One-on-one, I gave each of my participants the following questions and had them write down their responses to better gauge their overall attitudes towards reading.

- 1.) *Do you enjoy reading in your spare time? If so, what kinds of books or reading material do you enjoy?*
- 2.) *How much time do you spend reading each day approximately?*
- 3.) *What are your favorite books to read?*
- 4.) *What are your least favorite books to read?*
- 5.) *What do you find most difficult when it comes to the material you read in and outside of the classroom?*
- 6.) *What reading skills and strategies do you feel need to be improved to help you in the classroom?*

Figure 1. Questions asked to each participant.

In response to question number one, Brittany responded, “In my spare time, I enjoy reading magazines because they give the latest gossip on celebs and clothes and stuff.” In response to the same question John responded that he enjoys reading articles and magazines related to cars and all things auto related due to his interest in aeromechanics.

In response to question number two, Josh, Abby, Albert, and Adam all responded that they do not read anything other than what is required for their

school work. John and Brittany, due to their interests in certain magazine and article topics of interest shared that they spend approximately an extra hour a week (not day) reading.

In regards to question number three, not one single student wrote down their favorite book as they all replied that they did not have one. However, almost all replied to question number four that anything they have read so far in English was their least favorite.

I found number five to be the most insightful of all the questions as it gave me a better understand on how each participant felt as they were reading material that was school related. Albert added, *“I find it hard sometimes to get into what I have to read for school. It’s sometimes boring and I lose interest and then lose my spot and sometimes re-read stuff over and over again.”* Josh added, *“I hate reading outside of school because a lot of the time I can’t understand what I am reading. It takes me a long time to read stuff on my own sometimes because I don’t understand it. Then I forget it all by the time I’m done. So it’s pointless which is why I don’t do my homework most times.”*

Question number six is what helped me develop direction as to what reading comprehension intervention skills and strategies I needed to re-teach with these students to better build their overall reading comprehension skills. Adam shared, *“I just don’t know what information is important and what isn’t. I read*

every word, however, when I get to the end I forget what was most relevant from the story or passage.” Abby commented that she has a hard time making connections with the text she reads. She also stated that she doesn’t always predict what the story may be about and just gets right on reading to get the assignments complete.

Reading Level Indicator (RLI)

Another initial source of data collection that I gathered before conducting my study was a *Reading Level Indicator (RLI)*. The RLI was given to both my middle and high school participants. I explained to my participants that this was an assessment tool that would show me their current instructional and independent reading levels. I informed them that I would be giving them one assessment now and another at the conclusion of the study to see their progress over time. To further help aid in them not becoming too overwhelmed or frustrated, I assured my participants that there were questions and vocabulary that ranged from primary grade level to beyond high school and that they should try their best. I told them that I could read words to them, however, I could not give them any information about what words meant. Below are the initial scores for both instructional and independent grade levels (Table 2). The ending score will be displayed in my finding section. Just to clarify table 2 further, instructional reading level means the current comprehension grade level at which the students

are functioning when retaining information learned in the classroom. Independent reading level is the current reading comprehension level the student is functional at when reading is conducted outside the classroom setting.

Table 2. Reading Level Indicator Initial Results.

Middle School Initial RLI Results		
Name	Instructional Reading Level	Independent Reading Level
Jake	4.8	3.5
Henry	4.3	4.8
Ashley	4.8	3.5

High School Initial RLI Results		
Name	Instructional Reading Level	Independent Reading Level
Josh (9th)	2.6	2.0
Abby (9th)	6.9	4.4
John (10th)	>12.2	11.4
Albert (11th)	7.8	4.6
Adam (12th)	3.9	2.9
Brittany (12th)	5.7	4.0

Strategy #1: Previewing & Predicting

During the second week of data collection for my study, after gaining a better understanding of my students based upon the *Reading Interest Inventory* given at the middle school, the informal questionnaire given to my high school participants, and the RLI given to both groups, I began to dive into implementing differentiated instruction and reading comprehension intervention.

I began by developing short reading passages based on each participant's current instructional reading level. Each participant was given an individual passage, which acted as a probe for me to record and view progress over time through the use of progress monitoring charts.

For the strategies of previewing and predicting, I introduced and reviewed the skill during whole group instruction first before having the students practice on their own. Students were to mark up their passages with the strategy reviewed in order to demonstrate to themselves and me that they grasped the concept. Throughout the week, we reviewed the previewing and predicting strategy and while students continued to practice the skill, I conferenced with individual students about how they felt they were performing with this revisited skill.

Middle school participant's response:

Me, "Do you ever wonder what happens to all the garbage we toss in the trash? This is about how much garbage your family accumulates over the course of a week. How do they get rid of all that garbage? Where do they put it all?"

Jake, "I know that the garbage men pick it up on Wednesday morning at my house. And I know that there is a garbage station in Wind Gap. It probably just goes there or something."

Ashley, "My dad burns some of our garbage in the backyard." (students laugh)

Me, "He burns ALL the garbage in the backyard?"

Ashley, "Well not all of it."

Me, "Well what happens to the rest that he does not burn? Before anyone answers further, let's take a look at the title of this passage you are about to read. [Title is Garbage.] Based on the title, what can you predict this passage will be about? What do you think you may learn while reading the passage?"

Henry, "I think the article will talk about the methods of waste management?! Actually, I know it will, I looked ahead at the headings. Hehe."

High school participant response:

Josh, “I hate these things [regarding the reading probes]. Although I completely get the concept of previewing and predicting, and this is a skill that I tend to use most, I just hate reading.”

Me, “Can you elaborate on what you mean when you say you use previewing and predicting? What do you actually do?”

Josh, “I look at the pictures if there are any and the title. These can sometimes give me an idea of what the passages I’m about to read may be about. And sometimes I skim the intro if there is one, but I totally don’t read the whole thing.”

Strategy #2: Questioning

I chose to introduce and reteach questioning as my next strategy to review with my students. By incorporating the strategy and skill of questions, the students and I were more engaged with the reading material given. Through the use of questions, the students were able to use their questions to clarify their understanding.

I introduced this strategy by opening up with the question, “*Why do you think your teachers ask you questions when you read stories in class?*” Some

responses I received were, Josh (HS), *“Because that’s their job and they want to make sure that you are actually reading the stuff.”* Jake (MS), *“To make sure that we are following along and paying attention. Also, this helps show them what we are getting from the story or whatever as we are reading.”* I followed my initial question with, *“Well, if your teacher asks you questions to see if you are paying attention and understanding what you are reading, do you ever ask yourself questions as you read to ensure the same thing?”* With the overwhelming responses in the differing variations of *“No.”*, I knew that I needed to practice the strategy more with them together as a group and more importantly have them practice this when they read and worked independently.

I instilled in the students that asking questions along the way in the margins, or somewhere on the text they are reading, will help them to determine not only the sequence of events taking place, but also what is happening. When the students are able to ask themselves questions while reading, they will think more deeply and become more engaged in their reading. When students were asking questions along the way, I noted that their overall understanding and clarification was enhanced and they were therefore more apt to comprehend what they were reading.

Looking back at my field logs and data collection notes, I chose to implement questions before, during, and after reading. I chose to implement before-reading questioning to help activate students’ background knowledge. I

would stop periodically during reading in whole group to help my readers stay engaged; this also helped to clarify text or information that was unclear. After reading, questioning was used to reflect on what was read and any further conclusion that the students came to realize.

To demonstrate whole group questioning using the before, during, and after questioning technique, I gave each student the same excerpt from a chapter book to read. We listed initial questions on the board as a class, stopped periodically throughout the reading to place more questions on the board, and finally, once we were all finished, went back to review. We looked at the questions we had on the board initially, then at the ones that we added, and even added questions that we still had. Through this process, the students held their engagement much more than they had previously. Students that hadn't participated previously were answering questions that were already present on the board, or being vocal about questions they still had.

Along the way, I demonstrated that "marking-up" the text is a great way to get your questions down. I demonstrated this through the use of post-its and writing in the margins. I passed out a stack of small post-its and ensured that everyone had something to write with while they began to read and mark their own questions on their own passages. When I walked around to ask how the new strategy is working for them, here are some of the responses I received:

Brittany (HS), *“I really like how I can implement the post-its on my pages where I have questions. It gives me a visual of where my questions were so when I was finished reading I could go back to see if I found the answer to my question.”*

Adam (HS), *“I am soooo using this in my English class when we read the novel. I can’t remember anything when I read something even if I read it over and over again. With marking up the text, I can see my questions and notes and recap what I read easier.”*

Strategy #3: Making Connections

As a teacher, I am always presented with the question, *“How does this benefit or relate to me?”* I begin by explaining that if, as a student, you can put yourself into the text, so to speak, you will make a better connection with what you are reading, therefore increasing your overall engagement and understanding.

I gave my middle school students a passage about the first day of school. The passage was an excerpt from a book and included some black and white character pictures that went along with the story. The story began with a young man starting a new school. Before I began to read the story aloud to them, I asked them to conduct the previously implemented strategies of previewing the text, making predictions, and asking initial questions which were placed in the margins of their pages. I began reading slowly aloud as they followed along. I stopped after the first short paragraph and asked, *“Can any of you relate to Sam? I know I*

can. When I first came here to this school district, I was beyond nervous and I'm an adult. I bet that Sam was as nervous as I was on my first day." I gave an example of connecting my own personal experiences with the main characters. Abby then shared hers, *"Yeah, I can totally relate to him. I came to this district in fifth grade from New York. I didn't know no one and I was so scared that I would not make any friends."* Another student chimed in, *"Yeah me too, I came to this middle school from another district in PA and I dreaded it. I so understand how Sam felt."*

I had the students complete the rest of the reading on their own while I walked around asking how they connected with the text. They were able to give me their own examples to relate.

Pulling It All Together

These strategies listed above were used continuously and repeated over and over throughout the course of my study both at the middle school and high school. These strategies and the overall analysis of student progress over time was a major part of my data collection. While students worked on the strategy skills independently, I was able to walk around and gather more individualized data based on the conversations I had with my participants. When I had my students explain to me their thought process in different areas or conversing over different questions to problems, I was able to see over time the change in their thinking and

comprehension. Their progress along the way was monitored and recorded throughout and will be compared and analyzed later in my thesis review.

Analysis of Data

Surveys

To begin my study, each of my participants was given a student interest survey. Before I began to implement differentiated instruction and reading comprehension intervention into the classroom, it was important for me to first gather more information as to how my students felt about reading and what their interests were when it came to their choices of reading. This was important to gather so I could incorporate readings of interest to help best gather the most accurate data that I could throughout my study. The surveys helped tell me a little more about each student's overall general attitudes towards reading, their current reading comprehension standings, and what they liked and did not like to read when it came to the material given to them to read.

My middle school participants were given an informal reading survey (table 3). From the results of this survey, I learned that all of my participants would prefer to read texts that contained real photographs rather than animated drawings. The survey also showed me that text related to humor and fantasy was the reading of choice for two out of my three participants, while my third participant preferred mystery and adventure.

The survey given to my high school students (table 4) focused on short answer responses and helped me gain an understanding of their perception of their

comprehension abilities. The survey also asked where they felt their deficits were when it came to comprehending what they learned in the classroom. Overall, all but one of my high school participants shared that they felt they did struggle greatly with comprehension across curriculums especially when it came to reading and processing information on their own. Two participants shared that they were able to comprehend most information in the classroom when it was discussed out loud or with partner/group members. However, when it came to individual work, these participants struggled due to their far below grade level reading disability.

Table 3. Middle School Survey Results

Given Statement	Percentage of Student Response
Which do you prefer reading fiction or Non-fiction?	Fiction - 90% Non-fiction – 10%
Where do you get most of your reading materials?	Teacher – 60% Online – 40%
How much time do you spend reading each day outside of school?	0-1 hours – 100% 1-2 hours – 0%

Table 4. High School Survey Results

Given Statement	Percentage of Student Responses
What do you find most difficult when it comes to the material you read in and outside of the classroom?	Understanding the content – 95% Figuring out what certain words mean – 80% No comments made – 10%
What reading skills and strategies do you feel need to be improved to help you in the classroom?	Overall reading comprehension – 95% Reading fluency – 70% Making inferences/connections – 60% Previewing text – 75% No comments made – 0%

Field Logs

Upon gathering data and reviewing my students’ responses from their informal student interest surveys, I conducted individual interviews with each of my participants. Although I had a good understanding of their reading interests and disinterests and their overall views on their reading abilities, I found it most beneficial to speak one-on-one with each of them. Not only did this help build a rapport with each participant on an individual level, but it helped open communication which had been beneficial for the collection of data and findings for my study.

All individual and group interviews were recorded in my field log as an ongoing data collection tool. My field log entries helped me keep detailed

observations, notes, interviews, and other forms of data that were collected throughout my study. The data gathered from my field log were used as a means of informal progress monitoring in which I was able to gather students' feelings and progress related to comprehension over the course of the study. Through whole group and individual conversations that took place and were recorded in my logs, I was able to see growth in their thinking processes. The results were enlightening as I began to see my participants making connections with the texts, asking and writing down questions as they began to read and continued to read, and making predictions from previewing texts. These were the three key reading comprehension intervention strategies and skills I reinforced over the course of the study and it was great to hear such conversations as, "*Mrs. Branning, I used that strategy thing you showed us by marking up the text with questions. It really did help.*"

Progress Monitoring

Throughout my study, an important tool in my data collection process was each participant's progress monitoring based on the overall scores they received on their probes. These probes consisted of short reading passages with 10-12 comprehension questions that followed. While viewing their comprehension questions, their scores were documented in chart form. Each progress monitoring chart showed their initial comprehension standing taken prior to implementing the

reading comprehension intervention skills, and their growth over time from tracking their scores as the study continued.

Table 5. Jake’s reading comprehension growth over the course of the study.

Baseline data taken from current IEP: 80% at the 5 th grade level		
Date	Score (%)	Goal 80%
12/12/16	42	59
1/24/17	67	63.5
2/6/17	25	65
2/21/17	50	66.5
3/1/17	58	68
4/10/17	50	69.5
4/18/17	58	71
5/2/17	50	72.5
5/8/17	42	74
5/22/17	67	75.5

Jake’s reading comprehension progress monitoring chart above indicates that, taken from his current IEP at the time, it was his goal to reach 80% accuracy on fifth grade level probes. At the start of the study, Jake’s initial reading comprehension average was 42% when given fifth grade level passage probes.

The “goal 80%” column of the chart shows a break down in equal increments what Jake should at least score during each probe to keep him on track to reach his 80% goal. Although, at the conclusion of the study, Jake did not reach his 80% reading comprehension accuracy goal at the fifth grade level, he did show growth moving from an initial score of 42% to an ending score of 67% at the conclusion of the study. Although this may not seem like a great improvement, when it comes to Jake’s learning disability, this shows that he was making growth and progress towards his goal. He did not remain stagnant in his scores and did not show regression.

Table 6. Henry’s reading comprehension growth over the course of the study.

Baseline data taken from current IEP: 90% at the 5 th grade level		
Date	Score (%)	Goal 90%
12/12/16	8	77
12/19/16	33	78.5
1/30/17	33	81.5
2/7/17	42	83
3/9/17	50	84.5
4/3/17	67	87.5
4/19/17	58	89
5/9/17	67	90.5
5/16/17	80	92

Henry’s reading comprehension progress monitoring chart above indicates that taken from his current IEP at the time, it was his goal to reach 90% accuracy on fifth grade level probes. At the start of the study, Henry’s initial reading comprehension average was an 8% when given fifth grade level passage probes. The “goal 90%” column of the chart shows a break down in equal increments what Henry should at least score during each probes to keep him on track to reach his 90% goal. Although, at the conclusion of the study, Henry did not reach his

90% reading comprehension accuracy goal at the fifth grade level, he did show growth moving from an initial score of 8% to an ending score of 80% at the conclusion of the study. Henry showed significant growth over the time of the study, and although he did not reach his IEP goal of 90%, he did not regress over the course of the study. I do have to add, Henry's initial score of 8% is an outlier as I do not believe Henry was that low at the start of the study. I believe he was not taking the assessments seriously at the time and therefore this score is not conducive.

Table 7. Ashley’s reading comprehension growth over the course of the study.

Baseline data taken from current IEP: 80% at the 3 rd grade level		
Date	Score	Goal 80%
12/12/16	28	70.5
12/19/16	30	72
1/25/17	28	73.5
2/7/17	36	75
2/22/17	36	76.5
3/1/17	24	78
4/3/17	44	79.5
4/10/17	36	81
4/24/17	32	82.5
5/2/17	64	84

Ashley’s reading comprehension progress monitoring chart above indicates that taken from her current IEP at the time, it was her goal to reach 80% accuracy on third grade level probes. At the start of the study, Ashley’s initial reading comprehension average was 28% when given third grade level passage probes. The “goal 80%” column of the chart shows a break down in equal increments what Ashley should at least score during each probes to keep her on

track to reach her 80% goal. Although, at the conclusion of the study, Ashley did not reach her 80% reading comprehension accuracy goal at the third grade level, she did show growth moving from an initial score of 28% to an ending score of 64% at the conclusion of the study. Ashley showed small growth over the time of the study, and although she did not reach her IEP goal of 80%, she did not regress over the course of the study.

The figures below represent my high school participants progress monitoring charts recorded over the course of my study. Each figure listed contains the overall average each participant scored during marking period one and two of the Fall semester. Each score is based on their performance of the probes they were given at their specific performance grade level. Assessment probes were given to each participant and the score was reported using a progress monitoring chart showing the score percentage earned. During each marking period, four separate reading comprehension probes were given and scores documented upon completion. The final marking period percentage was determined by adding up each of the four scores and dividing by the total number, in this case four. As presented in the figures below, the lowest score a student can receive in a 0% and the highest being 100%.

When viewing Josh's progress monitoring chart (figure 2), his first assessment probe was a 65%. Josh did have an outlier score for his second

assessment in which he scored a 10%. This score was not accounted for as he disclosed that he did not take the assessment seriously and therefore I did not count it towards documentation of my study as it would skew overall results. When Josh first began the study he was functioning at a third grade level. At the conclusion of his assessments as documented on his progress monitoring chart, he accomplished his third grade goal and finished the study with a final score of 90% at the fourth grade level. The dashed lines shown on figure 2 of Josh's progress monitoring chart indicate that he also accomplished his fourth grade goal. Overall, Josh increased two grade levels upon the completion of the study.

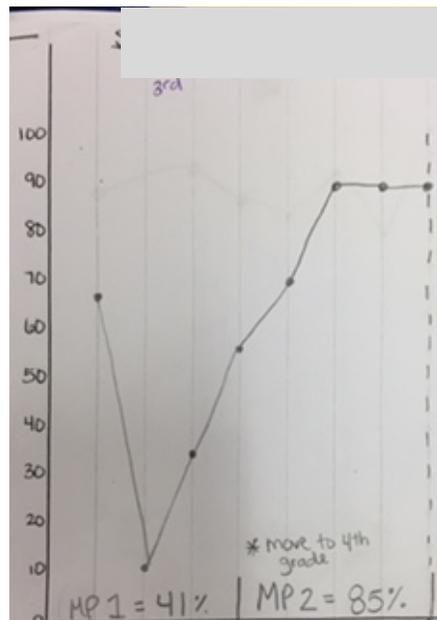


Figure 2. Josh's Progress Monitoring chart

Abby's progress monitoring chart (figure 3) indicates that her initial progress monitoring probe score was an 85%. You can see a dip in her score from her first to her fourth score in marking period one. I do have to indicate, as I believe it is crucial to the overall findings of my study, that at this time Abby was facing difficulties in her home life which were impacting her schooling, including the results of my study. In the second marking period, however, you can see a huge increase and a final average of 63%. As you can see in figure 3, she showed a decrease in her overall average from marking period one to marking period two.

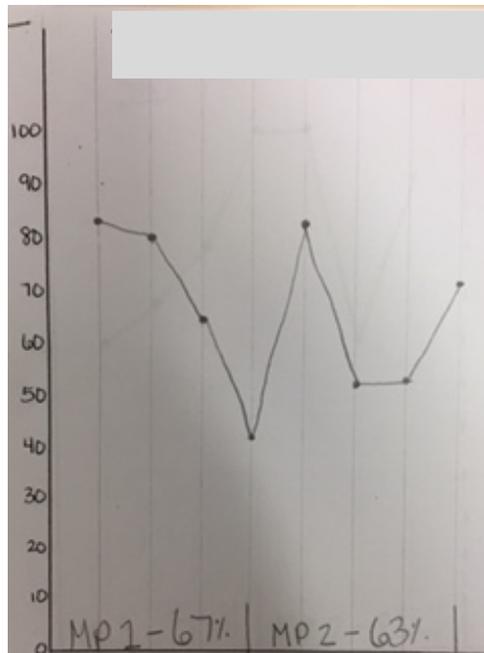


Figure 3. Abby's Progress Monitoring chart

Like Abby's overall data, John too did not show growth on to his progress monitoring charts from marking period one to marking period two. John's initial score was a 75% and he ended with a final assessment score of 60%. Between the two marking periods, John dropped six percentage points over the course of the study. I do have to add that John's absences from school hindered his performance.

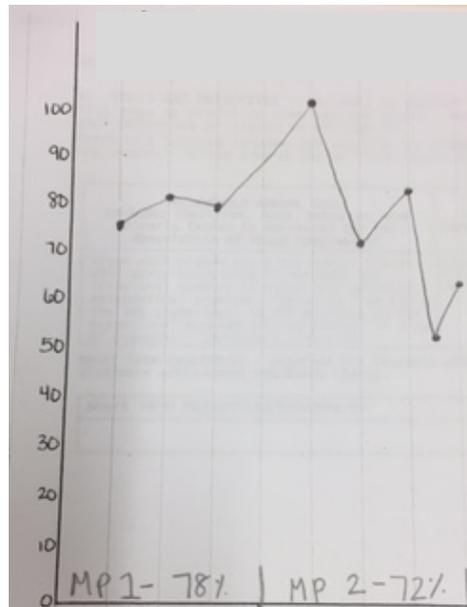


Figure 4. John's Progress Monitoring chart

Albert's data from his progress monitoring charts was not used in my study (figure 5). The data collected from him was not an accurate reflection of progress monitoring when differentiated instruction and reading comprehension intervention was implemented due to inaccurate grade level implementation of probes as a result of skewed data from his previous case manager not giving him

correct performance grade level probes or accurately monitoring his growth over time.

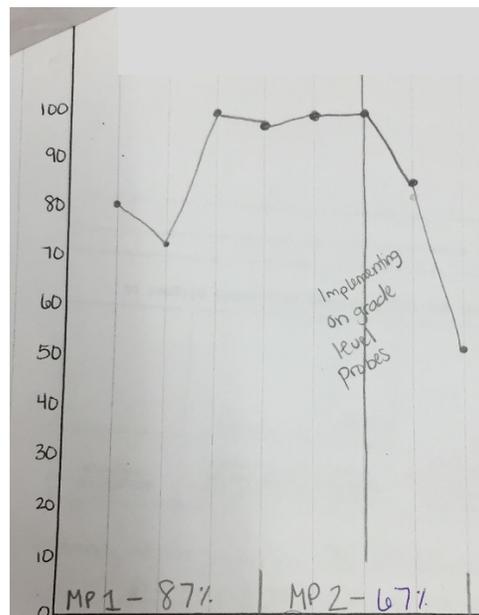


Figure 5. Albert Progress Monitoring chart

The overall progress Adam made from the start of the study to the end of the study on his assessment probes was incredible. At the start of the study, Adam was scoring 30% and towards the end of marking period one he increased his assessment scored to a 70% for a final marking period one average of 43%. Although in marking period two Adam showed a dip on his chart, he finished with an overall marking period two average of 53%. Overall, Adam increased percentage points from the start to the end of the study.

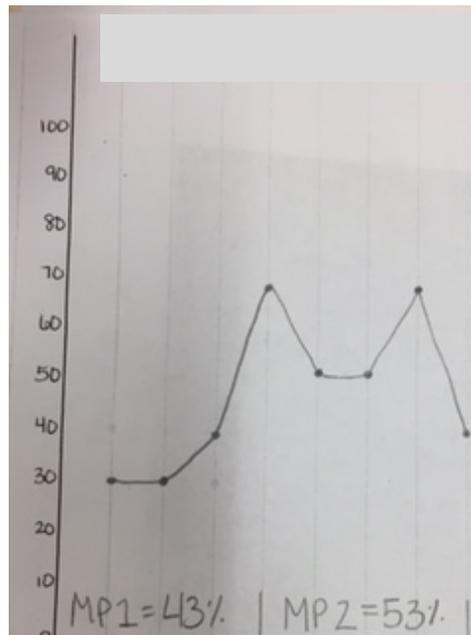


Figure 6. Adam's Progress Monitoring chart

Brittany too showed tremendous improvement from the start to the end of the study. At the start of the study, she was performing at the seventh grade reading comprehension level. At the end of the study, not only did she accomplish her goal and was increased to the eighth grade level, but she improved an overall of 13% from marking one to marking period two.

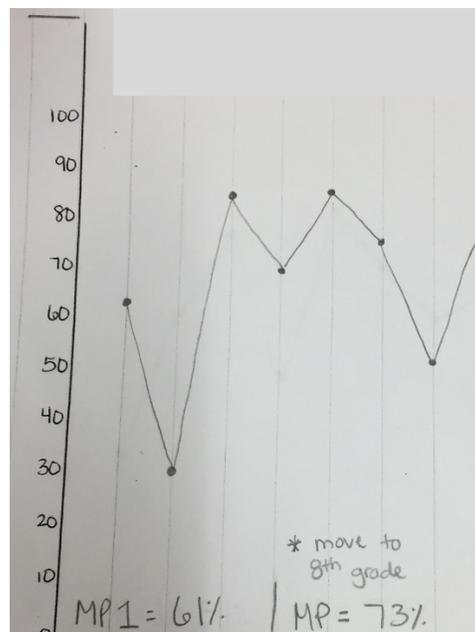


Figure 7. Brittany's Progress Monitoring chart

Overall, from the data collected from the progress monitoring charts, participants Josh, Adam and Brittany improved their overall reading comprehension progress over the course of the study once differentiated instruction and reading comprehension intervention skills and strategies were implemented. Participants John and Abby showed regression despite

differentiated instruction and reading comprehension intervention implementation at the secondary level. Participant Albert’s progress monitoring data was not used towards data collection for my study.

Standardized Tests

Another form of data collection that proved to be beneficial for my study was the initial and ending results when my participants took their PEARSON *Reading-Level Indicator* (RLI). Just to reiterate, the RLI gave me the initial scores on students’ sentence comprehension and vocabulary subtests for an overall total raw score for their instructional and independent reading levels. Table 8 below shows the overall growth for my middle school participants on their RLI in regards to their instructional and independent reading levels.

Table 8. Middle school participants RLI initial and ending grade level scores.

Participant	Initial Instructional Reading Level	Ending Instructional Reading Level	Initial Independent Reading Level	Ending Independent Reading Level
Jake	4.8	5.4	3.5	3.8
Henry	4.3	4.8	3.2	3.3
Ashley	4.8	4.8	3.5	3.5

Based on the data collected from the RLI, Jake showed a grade level increase on his instructional reading level of .6 and an increase of .3 for his independent reading level. Henry also showed growth increasing his instructional reading level .5 grade levels and .1 grade levels for his independent reading level. Based on her initial and ending instructional and independent reading levels, Ashley showed no growth or regression.

Table 9 -- Josh's initial and ending RLI grade level results

Participant: Josh		
	Instructional Reading Level	Independent Reading Level
Initial	2.6	2.0
Ending	3.6	2.7

Josh showed a 1.0 grade level growth in his instructional reading level and a .7 grade level growth in his independent reading level from initial to ending data collection comparison on his RLI.

Table 10 -- Abby's initial and ending RLI grade level results

Participant: Abby		
	Instructional Reading Level	Independent Reading Level
Initial	6.9	4.4
Ending	9.5	5.0

Abby showed significant growth from her initial to ending instructional reading level with 2.6 grade level improvement. She showed .6 grade level growth in her independent grade level.

Table 11 -- Albert's initial and ending RLI grade level results

Participant: Albert		
	Instructional Reading Level	Independent Reading Level
Initial	7.8	4.6
Ending	>12.2	9.6

Albert showed the most improvement of all my participants comparing his initial and ending RLI in both his instructional and independent grade levels. He increased 4.4 grade levels in his instructional reading level and 5 grade levels in his independent reading level.

Table 12 -- Adam's initial and ending RLI grade level results

Participant: Adam		
	Instructional Reading Level	Independent Reading Level
Initial	3.9	2.9
Ending	4.5	3.3

Adam showed .6 grade level growth in his instructional reading level and .4 grade level growth in his independent reading level.

Table 13 -- John's initial and ending RLI grade level results

Participant: John		
	Instructional Reading Level	Independent Reading Level
Initial	>12.2	11.4
Ending	>12.2	>11.1

From initial to ending instructional reading levels, John did not show growth or regression. However, John did show regression in regards to independent reading level with a -.3 grade level decline.

Table 14 -- Brittany's initial and ending RLI grade level results

Participant: Brittany		
	Instructional Reading Level	Independent Reading Level
Initial	5.7	4.0
Ending	5.7	4.0

Brittany did not show growth towards neither her instructional nor her independent reading level.

These RLI results over time helped show me who made progress from start to finish once differentiated instruction and reading comprehension intervention strategies were implemented. Overall all but two of my high school participants showed growth from initial to ending RLI when it came to their sentence comprehension and vocabulary in regards to their instructional and independent reading levels. One participant remained constant from her initial to her ending grade level scores and one male participant showed no growth or decline in his instructional reading level, however, he did show a decline from initial to ending in his independent reading level.

Table 15 below reports each of my middle school participant's name, grade level, reading comprehension intervention beginning grade, and reading comprehension intervention ending grade at the time of the study. You will see in

the first column of table 15 are listed each participants' beginning reading comprehension grade. This beginning grade was determined by the previous progress monitoring data that were collected prior to beginning the study through the use of reading comprehension probes on each student's individual performance grade level. The ending reading comprehension grade was the performance grade level increase upon completion of the study. The nature of the probes that the students were given consisted of a short story and 10 to 15 comprehension questions that followed. The probes were graded and averaged to give the student's overall reading comprehension performance at that time. For example, and to further clarify table 15, prior to the start of the study Jake was only reading at a fifth grade level and on average was only scoring 59% accuracy on his probes. When the study concluded, Jake was reading at the sixth grade level and increased his overall reading comprehension to an average of 74%.

Table 15. Middle school beginning and ending reading comprehension levels

<i>Student Participants: Three Seventh Grade Middle Schoolers</i>		
Name	Beginning Reading Comprehension Grade	Ending Reading Comprehension Grade
Jake	5 th Grade with 59% accuracy	6 th Grade with 74% accuracy
Henry	5 th Grade with 77% accuracy	7 th Grade with 92%
Ashley	3 rd Grade with 70.5% accuracy	4 th Grade with 84% accuracy

Table 16 below reports my high school participants' names, grade level, reading comprehension beginning grade, and reading comprehension intervention ending grade at the time of the study. The beginning grade level was obtained from their most recent IEP data collection. The ending reading comprehension grade was determined through the use of data collection from probes given to each participant on their functioning grade level. Josh increased two grade levels; Abby, Albert, and Brittany increased one grade level; and both John and Adam neither increased or decreased in grade level as they remained the same from beginning to ending reading comprehension grade levels.

Table 16. High School Participants Beginning and Ending RTI Results

<i>Student Participants: High School Grades 9-12</i>			
Name	Grade Level	Beginning Reading Comprehension Grade	Ending Reading Comprehension Grade
Josh	9 th	3 rd Grade	5 th Grade
Abby	9 th	7 th Grade	8 th Grade
John	10 th	5 th Grade	5 th Grade
Albert	11 th	6 th Grade	7 th Grade
Adam	12 th	6 th Grade	6 th Grade
Brittany	12 th	7 th Grade	8 th Grade

Theme Statements

Several themes began to develop over the course on my research study. Through the data collected from my literature review, field log, student work samples, assessments, and student feedback, the following themes were evident.

1. Comprehension: At the secondary level with the incorporation of differentiated instruction and reading comprehension intervention strategies, such as previewing and predicting, questioning, and making connections, comprehension skills increased over time.
2. Questioning: Having before and after questions based on individual and whole group discussions helped clarify confusion and helped build text connections and further build upon reading comprehension skills.
3. Student-Teacher Relationship/Interactions: The participants in my study are all students with learning disabilities manifesting in mathematics and/or reading. Due to their disability and the frustration they face in these specific academic areas, it is key to reach them on an academic level and on a personal level in order to effectively get them to learn. The teacher needs to design a positive learning environment.

Findings

The purpose of this study was to design, implement, and assess how the implementation of differentiated instruction and reading comprehension intervention affected students with learning disabilities at the secondary level.

Comprehension: At the secondary level with the incorporation of differentiated instruction and reading comprehension intervention strategies, such as previewing and predicting, questioning, and making connections, comprehension skills increased over time.

All of the participants for my study were students with learning disabilities manifesting in reading comprehension. These participants were not functioning on grade level at the start of my study and all were struggling to comprehend in their classes. Through the course of this short study, I was able to collect data such as the RLI (see tables 8 and 9 through 14) and document their progress on reading comprehension probes through the use of progress monitoring charts and graphs (see tables 5 through 7 and figures 2 through 7). These tables and figures show student growth made along the way over the course of the study. All the participants in my study showed growth overall in their comprehension. In some tables and figures there were stagnant lines of progression meaning that some did not show improvement or regression over some time (see table 8). Ashley, a middle school participant, ended up scoring at the same instructional and

independent reading levels on her initial and ending RLI. All but one participant at the high school level showed growth from their initial to ending RLI score in both instructional and independent reading levels (see table 8 and tables 9 through 14). Brittany's initial and ending RLI scores remained the same for both her instructional and independent reading levels (see table 16). There were two students, one at the middle school, Ashley, and one at the high school, Brittany, that remained the same in their initial and ending RLI scores from the start of the study to the end of the study (see table 9 and table 14). When it came to their progress monitoring charts, my middle school participants all showed growth throughout the study (see tables 5-7). My high school participants also showed growth over time as documented in their progress monitoring charts (see figures 3-7). Josh started at the third grade level and increased two grade levels by the conclusion of the study (see figure 2). He was my most successful participant when it came to increasing his reading comprehension skills as documented on his progress monitoring charts. Overall, Josh's final performance grade level increased to the fifth grade and he accomplished not one, but two goals according to his IEP. Participants Adam and Brittany also showed tremendous growth in their comprehension skills as documented on their progress monitoring charts. Adam increased ten percentage points from marking period one to marking period two (see figure 6) and Brittany increased thirteen percentage points from marking period one to marking period two. Brittany ended up accomplishing her IEP goal

and was increased from the seventh grade level probes to eighth grade level probes (see figure 7).

Questioning: Having before and after questions based on individual and whole group discussions helped clarify confusion and helped build text connections and further build upon reading comprehension skills.

When I first began my study, I looked at my participants' past progress monitoring scores. Before implementation differentiated instruction and reading comprehension strategies into my lessons, I first gave each of my participants at both the middle and high schools a reading interest survey and questionnaire. These sources of initial data collection gave me an overview of my participants' likes and dislikes when it came to what they enjoyed and did not enjoy reading. Appendix E provides the sample survey/questionnaire. Student responses are in Table 3. I believe, and my study later supported this finding, that if students are interested in what they are reading, they are more inclined to make connections, think critically about what they are reading, and therefore increase their overall comprehension. Once participants' reading interests were taken into account and implemented into their new probes, three out of my six high school participants' progress monitoring scores increased and all three of my middle school participants' progress monitoring scores also showed an increase over time.

Throughout my study, my field logs helped keep track of student dialogue on both an individual and whole group basis. By recording students' responses over text discussions, I was able to see the personal connections they were making towards the texts. As was documented earlier in my study, students such as Henry and Jake shared their feelings towards Valentine's Day while we read the passage as a whole group (refer to page 54). Also, as I documented on page 60 of my study, by asking my middle school students pre-reading questions about garbage, I was able to gain a better understanding as to how they were determining what the text was going to be about prior to reading. For instance, Henry replied that he looked ahead at the headings and was able to conclude that the passage was going to be able the methods of wastes management. Also, Josh made text connections to real life when he made the connection that garbage is placed in garbage stations around the world just like in his community. By developing these pre-reading strategies these students were able to make connections to help support evidence for their reasoning on the connections they were making prior to reading.

Student-Teacher Relationship/Interactions: The participants in my study are all students with learning disabilities manifesting in mathematics and/or reading. Due to their disability and the frustration they face in these specific academic areas, it is key to reach them on an academic level and on a personal level in order to effectively get them to learn. The teacher needs to design a positive learning environment.

Throughout my study, it was essential that I build trust with my participants. It was evident, based on the conversations I collected along the way in my field log, that most of them felt as though the probes they were given to help gauge their comprehension over time through the use of progress monitoring did not mean anything to them. I found out, through communicating with my participants, that most did not know why they needed to take the probes in the first place. They had no idea that the probes they were given were used to collect data towards the goals listed in each of their Individual Education Plans (IEPs). Most said that they did not take the probes seriously as the passages were not geared towards their reading interests and they therefore could not connect with the text, resulting in inaccurate scores and data reporting. Not only were the probes and passages given not geared towards their interests, but the students were never shown their results. Once I established a trusting relationship with my participants, showed them that I wanted their input for what their interests were when it came to reading, and shared their results with them through the use of progress monitoring charts, I began to see an increase in their overall participation and the effort they were putting forth. I gained their feedback on their interests through the use of my student surveys and questionnaires (see tables 3 and 4). On the surveys I asked them what they liked to read and what they did not like to read. By completing these surveys and questionnaires and then incorporating their reading interests into their learning, my participants saw that I wanted their input

on their learning because it was exactly that, *their* learning. Once I implemented their reading interests into lessons, I began to see an increase in their overall class participation and also in their assessment scores (see tables 5-7 and figures 2-7).

As I stated previously, all of these students have with learning disabilities. They struggle with their learning in and out of the classroom. By making a connection with my participants and showing them that their input and interests were of importance to me, I began to see them open up and the wall that they had built up over the years chip away. By making the one-on-one conversations and connections, I was able to accurately collect data as the students began taking their assessments and probes seriously (see tables 8-14 and figures 2-7). Once they were given options in their learning, they felt free to express themselves in the classroom, and an overall positive environment was built; They were more open to sharing what they did not understand and what their overall struggles in reading really were (see figure 1).

What's Next

This was a very short study, however, my research suggests that middle school and high school students will demonstrate growth in their overall comprehension with differentiated instruction and reading comprehension intervention implementation. If differentiated instruction and reading comprehension intervention is implemented effectively with students who struggle with learning disabilities, their performance levels will increase and their overall comprehension across curriculums will continue to increase. Not only did I see increased comprehension scores in my participants, but their overall attitudes towards reading in general also improved. In conclusion, my study demonstrates the benefits of differentiated instruction and reading comprehension intervention at secondary levels and the benefits it has on improving comprehension in students with learning disabilities especially those that manifest in reading.

I plan on sharing my findings with my district in the hopes to stress the importance of differentiated instruction and reading comprehension intervention implementation can be at secondary levels because it proves just as successful there as it does at the primary grade levels. Although my study was not long term, it did show that comprehension can be increased in students with learning disabilities if correct differentiated instruction and reading comprehension intervention strategies and skills are implemented into classrooms. I am hoping

that this research study and its findings helps further push the need for differentiated instruction and reading comprehension intervention implementation has at secondary levels.

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Appendices

Appendix A – School Board Approval Form

SCHOOL DISTRICT

ADMINISTRATIVE REGULATION

APPROVED:

REVISED:

235-AR-3. EDUCATIONAL RESEARCH PROPOSAL REQUEST FORM

Stephanie Branning
Proposal Requester

9/20/17
Date Submitted

Address

Telephone Number

Background of individual or organization proposing the research: The proposed research project is for the completion of my Master's Degree in Curriculum and Instruction.
Purpose of the study: To help improve reading comprehension through the incorporation of response to intervention techniques with struggling learners.
Use of the findings: To help build background on the benefits RTI implementation at secondary levels to increase overall reading comp.
Benefits to students, parents/guardians, district: Overall reading comprehension in struggling learners to increase therefore increase in their overall performance in class-room.
Time required of those involved; list participants: Students will not be pulled from any of their classes. All research and data gathering will take place during their scheduled Block 5 with me in my room or during homeroom.
Cost to district, specify: no cost to the district!

Please attach a copy of the survey, questionnaire or other data-gathering instrument to be used.

Approved Disapproved

Signature of Superintendent or Designee

9-28-17
Date

Appendix B – Principal Consent Form

Principal Consent Form

Dear [REDACTED]

I am currently working towards my Master's degree in Curriculum and Instruction at Moravian College. A major focus of this program involves teacher action research. During the remainder of the academic year, I will conduct a teacher action research study to investigate and implement teaching strategies that research has proven to be most effective. In turn, this will help me to create the best learning experiences for my students.

The general purpose of my action research study is to increase overall student performance in the area of reading comprehension. The study will be conducted during the regular school day from mid-September to mid-December 2017. During this study, I will be investigating strategies for enhancing student reading comprehension while working in small collaborative groups to improve students' overall use of specific reading strategies through incorporating the Response to Intervention skills/techniques.

As part of my research study, I will be gathering data to support my students through teacher observation, student surveys, student work samples, and both formative and summative assessments to be completed at various times during the study. While all students will be engaged in the collaborative activities, I will only use information collected from students who have parental permission to participate in the study in any written reports of my research. Any work that reveals a student's identity will be altered for their protection. All of the students' names will be kept confidential, as will the name of the school district and any participating faculty members. I am asking for your permission to use the data gathered pertaining to students' involvement. Participation in my study is voluntary, and a parent may opt to withdraw his or her child from the study at any time without penalty by contacting me using the contact information below. If a child is withdrawn, I will not use any information pertaining to him or her in my study.

If you have any questions or concerns about my action research, please feel free to contact me or my faculty sponsor at Moravian College, Dr. Joseph Shosh. He may be contacted by phone at (610) 861-1482 and by email at shoshj@moravian.edu.

Please sign and date the form to give your consent to move forward with this study. I would appreciate if the form was returned at your earliest convenience. Thank you very much for your cooperation and support.

Sincerely,

Stephanie Branning

Mrs. Stephanie Branning

I agree that I am the principal of the teacher conducting this research study, that I have read and understand the consent form, and received a copy. Stephanie Branning has my permission to conduct this study at the [REDACTED].

Yes, I give consent to move forward with this action research study.

No, I do not give consent to move forward with this action research study.

Signature: _____ [REDACTED]

Date: 10/25/17

Appendix C – Parent Consent Form

Parent Consent Form

Dear Parents/ Guardians,

I will be conducting a study within my classroom during Block 5 as my teacher action research project for my Master's degree program at Moravian College where I am studying to complete my degree in Curriculum and Instruction. I am conducting research to come up with and study the most effective ways to increase reading comprehension in struggling learners through the incorporation of Response to Intervention skills/techniques. I am writing to ask for your permission to use data collect from your child during this research gathering process. In turn, this will help me to create the best learning experiences for my students.

The general purpose of this study is to increase overall student performance in the area of reading comprehension. The study will be conducted during the regular school day during your child's Block 5 at the ██████████ and will last from mid-September to mid-December 2017. During this study, I will be investigating strategies for enhancing student engagement while working in small collaborative groups to improve overall reading strategies. The reason that drove this research project was the student's current disregard and overall disdain of their current data collect for gaging their current reading progress. Progress has been very slow in growth and I feel as though there is a better solution to improve student overall reading scores.

For this research study, I have included a detailed data collection plan. I will be gathering data to support my students through teacher observation, student surveys, student work samples, and both summative and formative assessments to be completed at various times during the study. While all students will be engaged in the collaborative activities, I will only use information collected from students who have parental permission to participate in the study in any written reports of my research. Any work that reveals a student's identity will be altered for their protection. All of the students' names will be kept confidential, as will the name of the school district and any participating faculty members. I am asking for your permission to use the data gathered

pertaining to student's involvement however, this study is voluntary and will not affect student grades in any way. Any student may withdraw from the study at any time without penalty by contacting me using the contact information below. If a child is withdrawn, I will not use any information pertaining to him or her in my study.

If you have any questions or concerns about my action research, please feel free to contact me or my faculty sponsor at Moravian College. [Redacted] He may be contacted by phone at [Redacted] and by email at [Redacted] or you may contact [Redacted]

Please sign and check the appropriate box below. I would appreciate if the form was returned at your earliest convenience. Thank you very much for your cooperation and support.

Sincerely,

Mrs. Stephanie Branning
[Redacted]
[Redacted]

I attest that I am the child's legal guardian and that I have received a copy, read, and understand this consent form. Please initial the appropriate space below.

Yes, I am willing to have my child participate in this study

No, I am not willing to have my child participate in this study.

Parent/Guardian Signature: _____

Child's Name: _____

Date: _____

Appendix D – Student Consent Form

Student Assent Form

Dear Student,

Over the next couple months, I will be conducting a research study on how to increase overall student performance in the area of reading comprehension. This study will take place during your Block 5 and will in no way count against you, grade wise. I am asking your permission to use the data that I collect from you during the research project. Feel free to ask me questions at any time about this study as I would be more than willing to share more with you. I have already received permission from [REDACTED], the school's principal, to move forward with this study.

The study will be conducted during the regular school day during your Block 5 at the [REDACTED] and will last from mid-August to mid-December 2017. During this study, I will be investigating strategies for enhancing reading comprehension while working in small collaborative groups while incorporating Response to Intervention skills/techniques. The reason that drove this research project was overall deficit in reading comprehension. Progress has been very slow in growth and I feel as though there is a better solution to improve student overall reading comprehension skills.

I will keep your name confidential during the duration of the study and will not disclose it at any time. You do have the right to decline me from using your data in the study and may do so at any time during the study. If you agree to me using your data for my research study, please sign your name and put today's date below.

Sincerely,

Mrs. Branning

YES, I agree to be in the study.

NO, I do not wish to have my data used in the study.

Signature: _____

Date: _____

Appendix E -- Student Reading Interest Survey/Questionnaire

Reading Interest Survey

Answer the questions about your reading habits.

1. What kinds of books do you like reading? Please circle all that apply.
Adventure Horror Mystery Biography Historical
Science Fantasy Informational Sports Humorous
Realistic Fiction Traditional Literature

2. Which do you prefer reading? Circle one. Fiction Non-fiction

3. What type of characters do you like reading about? Circle all that apply.
Musicians Athletes Historical Figures Celebrities
Detectives People Like Me People Not Like Me People My Age Fantasy
Actors People Going Through the Same Issues Animals

4. What do you read most of the time? Circle One.
Books Magazines Graphic Novels Books on Tape Websites
Newspapers Textbooks Comic Books

5. Where do you get most of your reading materials? Circle 1-2.
Public Library School Library Book Store Teacher
Friends Family Online

6. How much time do spend reading each day? Circle one.
0-1 hours 1-2 hours 2-3 hours 3-4 hours 5 or more hours

7. What is your favorite book to read?

8. What is your least favorite book to read?



Reading Interest Questionnaire

- 1.) *Do you enjoy reading in your spare time? If so, what kinds of books or reading material do you enjoy?*

- 2.) *How much time do you spend reading each day approximately?*

- 3.) *What are your favorite books to read?*

- 4.) *What are your least favorite books to read?*

- 5.) *What do you find most difficult when it comes to the material you read in and outside of the classroom?*

- 6.) *What reading skills and strategies do you feel need to be improved to help you in the classroom?*