COMPARING READING INTERVENTIONS FOR LANGUAGE ARTS STUDENTS

A Record of Study

by

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ABSTRACT

The focus of this research examined reading interventions for 6th grade language arts students. As the demands of state mandated testing increase, so too has the call for reading interventions to become more effective throughout schools in order for students to reach proficiency standards. This Record of Study examines teacher-directed and computer-based interventions for students who have been identified as needing remedial assistance in reading. Using mixed methods, student performance was analyzed quantitatively on two different assessments and focus groups and interviews were conducted to gauge teacher and administrator perceptions of computer-based and teacher-directed interventions.

Results demonstrated students who participated in computer-based interventions performed better on standardized measures. The teacher focus group and interviews indicated a strong need to combine teacher-directed and computer-based interventions in order to track student progress and correct misconceptions in student thinking.

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NOMENCLATURE

Academic Improvement Measurement System (AIMSWEB) AIMSWEB is a Curriculum Based Monitoring system that screens students triennially in reading and in math to determine grade level academic competency. For reading screeners the MAZE test is given to students. Progress monitoring of student academic growth is given to students in the form of an oral reading sample once per six weeks if identified as being in need of remediation.

Aberdine Independent School District (AISD) Psuedonyms are used for the original school and district within this study. AISD is located in Aberdine, Texas and has 85,355 students with over 12, 000 employees. AISD has 110 schools within its boundaries. Beasely Middle School is a middle school within AISD.

Curriculum-Based Measure (CBM) CBM is an assessment tool that is constructed to monitor student progress over a period of time. CBM is available for both reading and mathematics. R-CBM refers to Reading Curriculum-Based Measures.

Individual with Disabilities Education Act (IDEA) IDEA was passed in 2004 and governs how agencies and schools provide services and interventions to individuals with disabilities. IDEA calls for school districts and schools to provide a systematic method for universal screening of students in reading and math and to subsequently provide, within a three-tiered model provide timely intervention to students.

MAZE The MAZE assessment measures the number of words selected correctly up to the last circled word within a three-minute period. The incorrect answers are then subtracted from the total number of items attempted.

Middle of Year Benchmark (MOY) The MOY benchmark is given at the mid-point of the school year in the Aberdine Independent School District to gauge student performance and to ensure students are meeting the learning expectations of the TEKS.

National Assessment of Educational Progress (NAEP) The NAEP test is given to randomly selected students in grades four, eight, and twelve to measure reading skills, interpretation of text, drawing conclusions and making inferences.

No Child Left Behind (NCLB) The No Child Left Behind act was put into law in 2001 and sets standards for academic achievement of all students, teacher qualifications for hiring, and measures for improvement.

Response to Intervention (RTI) Created as an offshoot of IDEA, RTI is a procedural framework that provides students academic and behavioral intervention prior to them experiencing academic failure or severe behavioral consequences. RTI was intended to lower the discrepancy between student groups referred for special education services.

State of Texas Assessments of Academic Readiness (STAAR) The STAAR test is the State of Texas annual assessment for students in grades 3-12. Each year the

test is given in the spring to measure students' understanding of the TEKS.

Study Island Study Island is an academic software program that is structured around the Texas Essential Knowledge and Skills for the State of Texas and for the Common Core standards in other states. Content area subjects of reading, mathematics, science, and social studies are available. Pre and post assessments and progress monitoring are included with the program.

Texas Essential Knowledge and Skills (TEKS) The TEKS are state curriculum standards by which instruction is formed for grades K-12 in the State of Texas.

CHAPTER I

INTRODUCTION

In dealing with the issue of adolescent literacy the American educational system is currently facing one of the greatest challenges of the 21st century. To meet this challenge, schools must provide adequate reading intervention for struggling students. In approximately 35 of the largest cities in the United States, students entering high school will read at the 6th grade level or below, with more than one third of those students failing multiple classes (Grosso de Leon, 2002). Of equal concern, eight million students between the 4th and 12th grades struggle to read at grade level (Biancarosa & Snow, 2004). According to results from the National Assessment of Academic Progress (as cited in Montesano, 2011) only 5% of adolescents tested in reading could interpret an author's point of view, provide textual evidence for their assertions, and connect multiple literary pieces. Curriculum developers and teachers must be cognizant of harmonizing students' diverse learning needs in the area of reading with standardized testing demands. Literacy and reading interventions at the secondary level must not be a short-term goal, but rather the outlining of principles that guide instructional practice. Interventions are characterized as being: 1.) enhancements to the general education curriculum; 2.) instruction that is based on a variety assessments; 3.) lessons targeted to a particular skill to improve student outcomes; 4.) short-term, explicit instruction; 5.) instruction that is monitored frequently to document progress; and 6.) interventions are revised based on student performance (Rhode Island Technical Assistance Project, 2014, para 3). Teams of teachers, administrators, counselors must continuously monitor

student progress and adapt general education instruction and interventions to meet the needs of students.

Providing reading interventions to struggling students is a critical issue facing Texas schools as students are required to pass the State of Texas Assessments of Academic Readiness (STAAR) exam. The STAAR test measures the child's mastery of the TEKS standards in which the score achieved by the student is measured against a proficiency standard. STAAR is based upon on the assumption that students are reading on grade level, are able to make high level cognitive connections, and are able express themselves in writing (Texas Education Agency, 2011). However, many students are not performing on grade level and fall behind academically because of weaknesses in literacy skills. The struggle for teachers to balance teaching the curriculum and provide remediation through interventions is a heavy burden to bear. Thus, the question is how to prepare students adequately to pass the STAAR exam, and more importantly become proficient readers. Through interventions students' reading deficiencies are addressed, but which interventions yield the highest result in student achievement while working within the confines of a fiscal budget? As education evolves to a standards-based modality of instruction it is important to define what the components of quality reading interventions are and what impact interventions are making on student learning. This study examines computer-based and teacher-directed interventions of 6th grade language arts students and teacher perceptions of both kinds of interventions and their effectiveness.

Critical Elements of Teaching Reading

On the 8th grade reading National Assessment of Educational Progress (NAEP, 2013) 39% of Texas students met proficiency standards. Educating students to become proficient readers and mitigating the rigorous requirements of the STAAR test require campus stakeholders to construct a systematic process for reading instruction and interventions for those students who struggle. Creating an effective means of intervening for a large number of students who struggle with reading requires educators to evaluate their methods whether computer-based or teacher-directed. Regardless of methodology used to teach reading, Taylor and Collins (2003) suggest there are three components that must be addressed in teaching reading to adolescents: 1.) consistent incorporation of reading, writing, listening, speaking, viewing and thinking across content areas; 2.) explicit teaching and incorporation of literacy strategies; and 3.) daily accountable independent reading (pp.59-60). Erickson (2002) suggests that of all instruction, reading in particular must delve deeper than the factual level into the configuration of the subject versus teaching to a specific topic. This is supported by Gallagher (2004) who notes that teaching reading must not only help the reader frame the text by using supporting details, but also ask metaphorical questions and solicit reflective responses from students. As students read text, they must make meaning, be able to extract critical information, and to arrive at conclusions about text with an authentic experience that is responsive individual learning needs.

For struggling students comprehending text must center on prediction, explanation of literary elements and devices (Beers, 2003). Teachers of all content areas

must understand that students must not only construct meaning, but also have a set of tools from which they can draw upon when encountering difficult text (Marcell, DeCleene, & Juettner, 2010). It is assumed that when delivering this highly controlled form of instruction, the teacher is consistently monitoring student progress. Solis, Ciulio, Vaughn, Pyle, Hassaram, and Lerou (2011) compiled studies of reading interventions for middle school students from the past thirty years and through their research arrived at the conclusion that teachers must explicitly instruct students in text-dependent reading strategies that utilize strategies such as graphic organizers, checklists, prompt cards, and group learning tools. It was noted in this study that students must have the ability to self-monitor their progress and receive continuous feedback on their self-created questions and assertions based on the text that they encounter.

Building on students' frameworks of understanding text through vocabulary development is a hallmark of reading instruction. Wormeli (2009) posits that students who have strong vocabularies are better able to make comparisons between literary elements across texts. Students must engage in the stages of vocabulary development of association, partial concept knowledge, and full concept knowledge as they progress through text (Allen, 1999). It is the primary goal of vocabulary instruction to assist students in making meaning and to incorporate newly acquired words into practice either in conversation or in their own writing. Also, academic vocabulary is built through reading books of choice that are scheduled within the school day through intervention programs such as Silent Sustained Reading (Siah & Kwok, 2010). Teachers can utilize

this opportunity to question students on words they may not know and strategies to decode and determine meaning through context clues.

In order for students to be able to make meaning of what it is they are reading instruction requires attention be paid to fluency which is rate, accuracy and automaticity (National Institute of Child Health and Human Development, 2000). Fluency is a skill that allows the reader to read with ease at a steady pace with little interruption for the decoding of words. Students must be given time to practice reading within the school day to develop fluency regardless of reading program. Ring, Barefoot, Avrit, Brown, and Black (2012) note in their study of reading fluency interventions that between the two methods studied both were effective for struggling students. Both intervention types sought to improve student fluency through oral reading. One intervention type sought this through direct instruction of repeated readings using word families. Instruction was based on repetition of vocabulary and sight words. The other intervention type incorporated student choice of text coupled with direct instructional strategies.

Statement of the Problem

Within the Aberdine Independent School District (AISD), some students do not come to middle school reading on grade level. In some cases, they are multiple years behind. In order to identify early struggling readers, every middle school student within AISD participates in a triennial screening through the online program, Academic Improvement Measurement System (AIMSWEB). AIMSWEB is a curriculum-based monitoring program that measures students' reading fluency levels. AIMSWEB is given to students by classroom teachers in a controlled setting. Students must work

independently to select the best word choice out of three options within a passage. MAZE screeners ask the students to silently identify vocabulary within a passage after every 7th word (Shinn & Shinn, 2002). Based on MAZE, previous STAAR results, and teacher feedback, students are required to receive remedial literacy instruction either teacher-directed or computer-based. Yet, the impact of interventions is often not measured locally. Due to time constraints and limited resources it is assumed that students will make progress using either method, but which is the best for students?

Currently, within AISD there is not a framework within the curriculum that guides secondary intervention classes. Thus it is left to schools to create a plan of remediation for students. Therefore, schools within AISD turn to designated teachers for remedial classes and/or purchase licenses for computer-based instruction. Both are costly as designating funds for either type becomes a question of how many students can be impacted by interventions and will it improve student learning? School leaders must make informed decisions about allocating resources, and leaders within AISD must be able to justify expenditures for either additional staff and/or computer software to the community. This study hopes to examine two intervention types computer-based and teacher-directed and determine which provides the most useful, efficient and cost-effective method of instruction for students.

Throughout the literature two kinds of interventions dominate remedial classes; traditional instruction and computer-based learning. Computer-based intervention has gained momentum as a tool to increase phonological awareness, vocabulary, and comprehension development while providing immediate feedback to students (Meyer,

Wijekumar, & Lin, 2011). Yet, the need for teacher-led instruction cannot be denied as students have many complex reading issues that need to be addressed in person through varying tiered intervention strategies (Lembke, Garman, Deno, & Stecker, 2010). An intervention program that incorporates basic reading skills and promotes student self-efficacy could provide a road map for academic improvement not only in reading, but also in other academic areas as well.

This Record of Study will examine interventions for 6th grade language arts students at Beasley Middle School, one of 15 middle schools within AISD. At Beasley Middle School reading intervention participation primarily is based on student performance on the STAAR test and AIMSWEB MAZE screeners. In order to facilitate the number of students needing assistance, the school purchased 1,000 licenses of Study Island (Edmentum, 2013) for computer-based reading interventions in grades 6-8. The school's main goal in purchasing Study Island was to provide early intervention for students struggling in reading based on the Texas Essential Knowledge and Skills (TEKS).

The effectiveness of Study Island has not been measured in studies other than by the parent company Edmentum through a hired consulting group. Within the Study Island program, teachers are able to select the specific TEKS for students, passing standard, monitor student progress, and control the games available for students. The program creates reading selections and questions that model the STAAR test with a game format.

Reading teachers leading teacher-directed interventions utilize resources of their own choosing such as novels, magazines, released STAAR reading passages etc. They are able to determine their own curriculum based on individual student data and academic need. Based on experience, the typical reading teacher includes interventions fashioned for students to improve decoding, fluency, comprehension, and inferencing skills. Data from AIMSWEB and AISD benchmarks also inform instruction.

Purpose of the Study

The purpose of this study at Beasley Middle School is to determine the effectiveness of reading interventions among 6th grade students who have been identified as needing remedial assistance. Students receive either teacher-directed or computer-based interventions during their advisory period twice per week for 45 minutes each session. This research is needed to provide administrators and teachers with localized data in order to determine which interventions are most effective. Additionally, this study probed teachers' views about how interventions are implemented and their effectiveness.

Research Questions

The following research questions guided this study:

1. Which intervention type, teacher-directed or computer-based is most effective in assisting students in reading?
2. What are teacher perceptions of interventions at Beasley Middle School? To what extent do teachers perceive interventions to be implemented effectively? To

what extent do teachers believe both types of interventions impact student learning?

Contextual Limitations

Additional contextual factors that impact this study:

1. Attendance of students participating in interventions at Beasley Middle School
2. Teacher attitudes and beliefs about struggling students
3. Teachers being unaware of interventions taking place in addition to the studied sessions computer-based or teacher-directed interventions
4. Lack of curriculum resources for teacher-directed interventions
5. Qualifications of the teachers
6. Preparation and knowledge of reading intervention teachers

CHAPTER II

LITERATURE REVIEW

Introduction

The question of how to intervene and prevent academic failure with secondary students has been a dialogue among educators for the past century. Under the *Individuals with Disabilities Education Act (IDEA) of 2004* schools must provide a scientific method for intervening with students with learning disabilities that may not have been identified in order to prevent disproportionality among and between student groups (U.S. Department of Education, 2007). Through the legislation passed in IDEA, Response to Intervention (RTI) was created to give guidance and a framework to interventions. Schools from primary to secondary levels are charged with creating a systemic plan for all students that identify in a timely fashion, those children who are not responding to the mainstream general education curriculum in math and reading, or that may have an undetected learning disability (Fuchs, Fuchs, & Compton 2012). The most common components of RTI are a three-tiered model: 1.) Universal screening; 2.) Comparison of pre and post assessment data accompanied by diagnostics; and 3.) Increased intensity of intervention (Ogonosky, 2009). Many school systems have turned to curriculum-based monitoring through online programs such as Academic Informational Measurement System (AIMSWEB) which allows teachers to screen students for reading difficulties in order to provide early intervention (Shinn & Shinn, 2002). School districts and campuses are to determine the curriculum measure for screening and interventions.

Interventions are created based on collected data from curriculum-based measures and progress monitoring at the local level. Tier I Interventions include differentiation of instruction, criterion-based assessments, and diversified classroom systems. Tier II interventions are comprised of small group instruction, computer-based instruction, and on-going collection of data to adjust the level of instruction for students whose academic performance is not at the same rate or level as their peers. Tier II interventions call for the teacher and school leaders to decide how much additional instruction is warranted in order to improve student outcomes (Goss & Brown-Chidsey, 2012). Tier III interventions are employed once all Tier II interventions have been tried and the student has not made progress. At this point students are assessed to determine if they meet the criteria for special education (Ogonosky, 2009). Thus, Tier I and Tier II interventions become the focal point to move students towards academic progress and ensure that students are given numerous academic supports throughout the school day.

Although Tier I interventions are employed in classrooms through differentiated instruction, the issue of providing individualized supports to students utilizing Tier II interventions becomes paramount. Tier I intervention asks teachers to adjust instruction so students are able to understand the content presented using a variety of strategies. When the instruction within the general education setting is not effective in assisting students mastering the curriculum, Tier II intervention intensifies the time and duration of instruction with a narrow focus on skills that need to be remediated. Through a mixed methods study of Tier II interventions, Prewitt, Mellard, Deshler, Allen, Alexander, and Stern (2012) note that not only is it critical to monitor, but also have a multi-level

reading program that supports students not only in interventions and in the general education classroom. Tier II interventions can be characterized as benefitting from the differentiated instructional techniques that occur in Tier I, but have shown growth through small group instruction that addresses specific weaknesses in learning (Wanzeck & Vaughn, 2010). Within Tier II interventions the time allotted for instruction increases based on skill need. Students who receive Tier II interventions typically experience remediation for a shorter period of time than those students undergoing Tier III interventions. Examining which intervention type matches the individual needs of students then becomes the challenge to teachers and school personnel.

Vaughn, Wexler, Roberts, Barth, Cirino, Romain, Francis, Fletcher, & Denton (2011) found in their study interventions of middle school students there was statically no difference between those that received individualized interventions or generalized instruction during interventions. Both intervention groups outperformed students who did not receive interventions and simply participated in daily language arts instruction. Likewise, Srivastava and Gray (2012) found in their study of 25 students who experienced language- learning difficulties that there was no statistical difference between the groups that received reading interventions via computer or paper-based texts. Although the reading passages were structured similarly as in passages from books or expository text, students showed similar gains in reading comprehension performance. Regardless of methodology used, Lipson and Wixson (2012) note successful interventions are well organized in terms of instruction and personnel. They further concluded successful interventions should show an increase in time dedicated to

targeted instruction and monitoring of student performance. Table 1 summarizes key intervention traits and significance.

Table 1 Intervention Traits

Traits	*Author*	*Title*	*Journal*	*Significance*
Teacher-Directed Reading Interventions	Faggella-Luby & Wardwell (2011)	RTI In a Middle School: Findings and Practical Implications of a Tier 2 Reading Comprehension Study	Learning Disability Quarterly	Middle school students identified as needing intensive intervention must have explicit reading instruction in the areas of previewing text, summarizing, character identification, and questioning.
	Ritchey, Silverman, Montanaro, Speece, & Schatschneider (2012)	Effects of a Tier 2 Supplemental Reading Intervention for At-Risk Fourth Grade Students	Council for Exceptional Children	Researchers found that students experienced higher rates of success when embedding reading instruction within content text, selecting high interest texts, providing openings for children to make choices, and differentiated activities.
	Burns, Hodgson, Parker, & Freemont (2011)	Comparison of the Effectiveness and Efficiency of Text Previewing and Preteaching Keywords as Small-Group Reading Comprehension Strategies with Middle School Students.	Literacy Research and Instruction	Researchers found that student growth took place when students were taught within small groups specific vocabulary strategies to identify keywords.
	Vaughn, Wexler, Leroux, Roberts, Denton, Barth, & Fletcher (2012)	Effects of Intensive Reading Intervention for Eighth Grade Students with Persistently Inadequate Response to Intervention	Journal of Learning Disabilities	The students that participated in intensive multi-dimensional reading intervention scored significantly higher on post-test measure of the Gates-McGinitie test than the control group.
Computer-Based Intervention	Meyer, Wijekumar, & Lin (2011)	Individualizing a Web Based Structure Strategy Intervention for Fifth Graders' Comprehension of Non-Fiction	Journal of Educational Psychology	5th grade students who participated in the control group of receiving computer-based reading interventions outperformed those students in the control group who received regular classroom instruction.

Curriculum-Based Monitoring

Based on the need for a reliable method of assessing students' basic skills in reading and mathematics Curriculum-Based Measures (CBM) have gained ground as the demands of RTI require schools to use localized data to create meaningful interventions that assist students in school. Curriculum-Based Measurement examines student reading performance in the basic skills of reading fluency and writing (Graney, Missall, Martinez, & Bergstrom, 2009). CBM assessments for reading include, but are not limited to R-CBM, where students read aloud to a teacher who is monitoring reading for errors and the MAZE assessment in which students are given three minutes to circle the correct words in a passage. The MAZE assessment is considered to be statistically valid in predicting student performance and growth over the course of time (Brown-Chidsey, Davis, & Maya, 2003; Jenkins & Jewell, 1993). Depending on the level of intervention within the RTI model, the frequency of progress monitoring is adjusted.

As decisions for referring students to more intensive interventions or even special education are often recommended from data collected from CBM, the fidelity and frequency of data collected must be accurate. Prewett, Mellard, Deshler, Allen, Alexander, & Stern (2012) suggest Tier II CBMs occur twice per month, and Tier III CBMs occur one to two times per week. Ardoin, Chirst, Morena, Cormier, and Klingbeil's research (2013) suggests oral reading CBMs be linked to not only the procedures for estimating students' growth over the course of time, but also the evaluation of accuracy of the assessment. Ensuring the fidelity of CBMs relies with the proctor of CBM as user error can affect data sets. Christ, Zopluoglu, Long, and

Monaghen (2012) assert from their study of CBM of oral reading, that even with the possibility of user error, the reliability of the measures are valid in reporting student progress if done over the course of time. Schools that utilize CBMs as part of RTI can monitor student performance not only throughout the course of a single school year, but also throughout their schooling careers from elementary school to the secondary levels (Shapiro, Hilt-Panahon, Gischlar, Semeniak, Leichman, & Bowels, 2012). This assists teachers and school leaders in goal setting for the student longitudinally and within daily instruction.

Teacher-Directed Reading Interventions

Ivey and Broaddus (2000) indicate in their study of middle school language arts students that reading fluency and vocabulary patterns are still developing in adolescence. In addition, students are often still struggling with decoding and comprehension skills which compound the dilemma of reaching proficiency standards on summative assessments. Reading instruction that evaluates students' needs on an on-going basis and that has an instructional process through selection of text and reflective discussion has proven to support student learning (Beers, 2003; Fuchs, Compton, Fuchs, Bryant, & Davis, 2008). Wanzek and Vaughn (2010) stress the most effective teacher-directed reading interventions are those that teach students how to frame their thinking through self-regulation in the pre-screening of text. Within this process, the authors conclude students should be taught to generate questions as they read text in preparation to teach their peers. It is advocated by Wanzek and Vaughn that students be given the opportunity to demonstrate their knowledge by sharing roles within the reading

intervention process. Johnson and Boyd (2012) suggest there are three elements of teacher-directed reading interventions: 1.) organization of instruction; 2.) program design; and 3.) presentation techniques (p. 206); which is reiterated by Wanzek and Vaughn.

Vadasy and Sanders (2008) studied the impacts of the teacher-directed reading intervention Quick Reads which assisted students in reading fluency. Quick Reads is a program that provides high interest books at a variety of levels and differentiated activities. Students were given intervention in 30 minute sessions, four times per week, for 15 weeks. As students progressed through the program the level of difficulty was adjusted to challenge students. Teachers delivered instruction in phonemic awareness, as wells as strategies for reading and understanding expository and fictional texts. The treatment group made gains in oral reading fluency and word accuracy. Vaughn, Denton, and Fletcher (2010) note that not only do struggling readers need additional time spent in reading intervention, but also need a more efficient delivery of instruction. This includes time for independent and guided practice. Wanzek, Vaughn, Scammacca, Metz, Murray, Roberts, and Danielson (2013) recommend that in providing reading interventions to students in grades 4-12, overt vocabulary instruction must be a priority, in conjunction with comprehension strategies. The authors emphasize the importance of having trained personnel deliver reading interventions.

Studies of elementary school reading intervention classes show comprehension strategies must be embedded within reading instruction (Fuchs et. al, 2008). Fagella-Luby and Wardwell (2011) revealed in their study of reading interventions that middle

school students identified as needing Tier II interventions must have on-going explicit reading instruction in order to preview text, summarize information, analyze characters in a story and answer questions at a higher cognitive level. Also, this study noted that students had to have dedicated time within the school day for reading text of their own choice in addition to text selected by the teacher. Torgeson, Alexander, Wagner, Rashotte, Voeller, and Conway (2001) established that older secondary students in their study of intensive reading interventions, performed better in a one-to-one setting with the teacher providing instruction 50-minutes period, twice per day, over 8 weeks. Students who were considered low-readers were able to make strong advancements in reading comprehension and word recognition. Explicit instruction of reading strategies was needed in an intensive setting so that students were immersed in literacy skills.

Direct teaching interventions have shown to yield strong results in improving students' ability to reach proficiency standards using a variety of resources from short stories to supplemental computer programs. Regardless of the resource used, the teacher and student have time for intensive reading instruction and remediation (Fuchs, et al.., 2008; Fuchs, Fuchs, & Compton, 2012). Denton, Nimon, Mathes, Swanson, Kethley, Kurz, & Shih (2010) found in their study of struggling 1st grade readers, that direct phonics instruction, reading comprehension strategies, and vocabulary instruction allowed students to perform at the same level as their peers after intervention. Using the Responsive Reading Intervention program, teachers in this study would model oral reading, and then have students read aloud providing feedback to them. Students then would practice oral reading individually then with a partner. Additional time was

dedicated within intervention to phonemic awareness and vocabulary development Assessment of students' skills would take place once per week by the intervention teacher. Intervention teachers underwent extensive training over one school year in order to learn the Responsive Reading Intervention program. Students participated in 40 minute sessions, five days per week for 30 weeks.

Andreassen and Braten (2011) assert that in teaching reading comprehension strategies, teachers must access academic background knowledge and only use a limited number of comprehension strategies in small groups. This facilitates students' retention of the strategies taught. Teachers and students who participated in Adreassen and Braten's intervention group focused on expository text from the social studies curriculum within small groups where students formulated questions, summarized reading, and studied challenging vocabulary. Compared to the control group, intervention students showed growth in reading comprehension. Burns, Hodgson, Parker, and Fremont (2011) note that middle school students' comprehension levels are significantly affected when the pre-teaching of vocabulary strategies are utilized with students during reading interventions. Beers (2003) suggests that teachers model specific reading strategies for students including articulating the purpose for reading, then modeling pre-reading of the text, and referencing the text when arriving at conclusions.

Arguments for ensuring that students receive intervention within the school day prevail throughout the literature as does the concept that remedial classes should support the core curriculum (Sanger, Friedli, Snow, Bunken, Ritzman, 2012; White, Polly, Audette, 2012). Providing students reading support throughout the school day through

direct instruction assists teachers and students in gaging improvement and weaknesses in areas of decoding, comprehension, and making connections with the text (Murakami-Ramalho & Wilcox, 2012). Prewett, Mellard, Deshler, Allen, Alexander, and Stern (2012) note that the reading remediation provided must support the general curriculum so that students are able to utilize the skills taught in multiple settings. In their longitudinal study of reading interventions Lembke, Garman, Deno, Stecker (2010) results demonstrated that students performed better on CBMs and state assessments when reading interventions were preceded by reading instruction. Hence, the strategies that are taught in intervention classes also must be accessed during generalized instruction.

The grouping of students for teacher-directed reading interventions impacts student performance. Iversen, Tumner and Chapman (2005) note in their study of 1st grade students receiving reading intervention that those students who were placed in groups of three receiving intervention performed similarly on primary reading assessments to those students who were placed in one-to-one groups. Similarly, Prewitt et al, (2012) assert in their study of tiered reading interventions that students in Tier II need a student-teacher ratio of 1:10 in order for interventions to be effective. Students within this study were assessed regularly on CBMs and interventions were tailored to the students' learning needs.

Computer-Based Reading Interventions

Computer-based reading interventions provide options to administrators and teachers to diversify reading instruction and allow for students to work at their own pace. Standalone computer interventions that are tailored to the students' needs have demonstrated modest results in improving student reading ability (Schwartz, 1998; Torgeson & Barker, 1995; Meyer, Wijekumar, & Lin, 2011). Using computer-based instruction allows the teacher to modify the format of reading text in terms of size, context, graphic organizers, and levels of difficulty for individual students (Biancarosa & Griffiths, 2012).

Savage, Erten, Hipps, Comaskey, and Van Lierop (2010) note in their study of computer-based reading interventions using the program ABRACADABRA, a free web-based literacy program from Canada that students, who participated in intervention classes using ABRACADABRA lessons were 60% more effective on post-test assessment measures than those who received traditional reading instruction. The authors cite the ability of teachers to individualize the computer program for students to shore up weaknesses in learning. Students participating in this study had skill intervention in the areas of phonological awareness, reading fluency, comprehension, and writing development. Additionally, researchers noted that within this study reading concepts taught in the general education classroom were connected to the computer-based interventions that were delivered.

Meyer, Wijekumar, and Lin (2011) noted in their study of 5th grade students who participated in two computer-based interventions, that instruction should address

deficient skills in combination with reading comprehension. Students in the treatment group were given remediation based on their individual academic needs compared to their counterparts who were given a generalized remediation program. All students were given the same reading texts, but the strategies used to individualize the treatment groups' instruction were adjusted based on their reading levels. Potocki, Ecalle, and Magnan (2013) found computer-based instruction that primarily focused on comprehension yielded strong results in their study of elementary-aged struggling readers. Students participating in the study were randomly assigned to two groups; one group that focused on comprehension strategies and the other on decoding skills. Comprehension intervention participants yielded stronger results in understanding of text, making meaning of text presented, and showed stronger listening skills than their counterparts.

Also, Potocki, Ecalle, and Magnan (2012) examined the effectiveness of computer-based reading interventions with French second grade students a year after receiving treatment. Students demonstrated stronger skills in reading comprehension than those students who did not participate in interventions. However, mixed results occurred in the comparison of vocabulary development between the studied groups. Computer-based remedial instruction has shown to be moderately effective in vocabulary development and comprehension (Fehr, Davidson, Graves, Sales, Seipel, & Sekhran-Sharma, 2012). The benefits of these findings for Tier II interventions, allow schools to not only tailor instruction, but also provide empirical data in the areas of comprehension, vocabulary development, and fluency.

Chambers, Slavin, Madden, Abrami, Logan, and Giffords (2011) concluded that computer-based instruction was as effective as teacher-directed instruction in their study of computer-based reading instruction with elementary school students. Within this study it was also noted that using computer-based instruction gave the school a larger opportunity to reach more students than with traditional teacher-directed instruction. Similarly, results from a computer-based instruction study of 3rd and 4th grade students in China demonstrated that poor, minority students who received computer-based interventions outperformed their peers on achievement tests when compared to those who did not receive intervention in reading and in math. Students received the instruction twice per week for forty-minutes (Yang, Zhang, Zeng, Pang, Lai, & Rozelle, 2013). Similarly, Fehr, Davison, Graves, Sales, Seipel, & Sekhran-Sharma (2012) discovered in their study of computer-based vocabulary interventions that students who received instruction via computer improved one standard deviation over their peers who had traditional vocabulary instruction. The computer program Computer Assisted Language Learning (CALL) explicitly taught children over 4,000 vocabulary words used in the English language which highlights the link between vocabulary development and comprehension skills.

Vaughn, Wexler, Leroux, Roberts, Denton, Barth, and Fletcher (2012) note that 5th grade students who participated in the control group receiving computer-based reading interventions did better on reading comprehension assessments as compared to those who received teacher-directed interventions. Students in the control group received lessons tailored to their learning needs specifically based on assessments. Additionally,

Ponce, Mayer and Lopez (2013) found in their study of computer-based reading comprehension and writing interventions of 4th, 6th, and 8th graders that students who received computer-based instruction performed better on the language arts portion of standardized tests than those who received teacher-directed instruction. Students receiving computer-based interventions within this study were taught to use graphic organizers as they read and composed written text to organize their thinking.

Computer-based instruction allows teachers to make instructional decisions, adjust the curriculum, and levels of difficulty as needed to assist students. In a review of computer-based teaching studies, 39 of 48 studies found students performed better on achievement tests than those who received conventional teaching (Kulik, Bangert, & Williams, 1983). In addition to using computer-based interventions, schools using a Response to Intervention framework are better able to serve a larger number of students needing Tier II reading interventions (Chambers, Slavin, Madden, Abrami, Logan, & Gifford, 2011). Vaughn, Denton, and Fletcher (2010) posit that although a small number of studies have examined the correlation of time spent in interventions to achievement, their assertion remains that administrators and teachers must look at the individual student and the ability of that student to make gains when determining the intensity and time needed during intervention. As the cost associated with hiring additional staff for interventions increases, computer-based instruction allows for students to receive needed instructional services and schools to practice fiscal responsibility.

Wood, Pillinger, and Jackson (2010) found that combined with instructional support from the teacher, computer-based reading through “talking books” assisted

primary students in literacy development and phonological awareness. Students who participated in this study spent instruction listening to books, reading the same books without the text read aloud, creating their own books, and reading with the teacher in small groups. Reutzel, Spichtig, and Petscher (2012) assert from their study that students who participate in computer-based intervention need to train their eyes movements to the natural flow of text through computer exercises before reading passages with instruction from the teacher. Students who were given this intervention had the material tailored to their reading ability, which would gradually increase in difficulty. Interventions would be given for 30 minutes, three times per week. Students in the treatment group had higher post-test scores in reading comprehension than those who did not participate.

Similarly, Vasquez and Slocum (2012) found in their study of fourth graders receiving online reading interventions that students who participated in interventions for 50 minutes four times per week, made gains in oral reading fluency using the computer software Corrective Reading-Decoding (CR-Decoding) which assists students in decoding and reading fluency. The computer program CR-Decoding allowed students to practice phonological awareness coupled with individual and group reading practice. Each lesson incorporated repeated reading selections in order to build fluency skills. Within this study it was noted that the supervising instructors engaged in providing consistent feedback to students and conducted routine assessment of student learning.

Saine, Lerkkanen, Ahonen, Tolvanen, and Lyytinen (2010) examined Finnish 1st grade reading students receiving computer-based interventions over the course of two years and found that students who began the study behind grade level were reading at the

expected grade level as their non-intervention peers. The study concluded that there was a correlation between the compute-directed interventions and the students' higher oral reading fluency levels. In a similar study Kyle, Kujala, Richardson, Lyytinen, and Goswami (2013) found in their comparative study of computer-based reading intervention programs with six and seven year old children, that both groups who were exposed to computer-based, explicit phonics instruction and rhyming words had higher rates of reading fluency and spelling than their peers who did not receive intervention. Students within this study were given supplemental instruction for 20 minute sessions, five times per week, for 12 weeks.

In their case study of three primary-age students, Clarfield and Stoner (2005) noted significant gains in oral reading fluency and a reduction of off-task behaviors through the use of the computer program Headsprout. Headsprout is an on-line computer program for students in grades K-5 that provides instruction in the areas of phonemic awareness, reading fluency, and comprehension. Students within this study participated in daily instruction of language arts and reading in addition to computer-based intervention. Students were given immediate feedback as they worked through the program. Reading teachers received weekly, emailed progress monitoring reports in addition to access to the students' profile within the program. A behavioral analysis resulted in all three students showing a steady decline in disruptive behavior during independent practice and small reading groups. Robertson and Howells (2008) note that in their field study of nine and 10-year old students receiving computer-based reading

instruction that students were motivated to participate because the learning was on the computer and their thinking was consistently challenged.

Conclusion

In order to implement the tenants of IDEA, which give educators a consistent framework for screening and providing remediation to students who need assistance in the content areas, schools must have a systematic plan for implementation. Regardless of reading intervention method, teacher-directed or computer-based, students must have access to remediation. Vaughn, Wanzek, Murray, Scammaca, Linan-Thompson, and Woodruff (2009) assert that the interventions given to students must include the following: time outside of general instruction devoted to intervention, smaller group size and targeted specific reading skills that are lacking. Effective reading interventions include explicit instruction in the areas of phonological awareness, reading fluency, comprehension, and vocabulary development. Successful studies show students should be provided with immediate feedback and strategies for reading that vary across literary genres (Ritchey, 2011).

Both methods of intervention require monitoring of student progress and an adaptation of material to meet each student's learning needs. The question of which reading intervention is appropriate for students lies with the school whose stakeholders know the student and his/her academic standing. This is supported by Fuchs, Fuchs, and Compton (2010) who suggest that in addition to using standardized scores and screening data, it is in the secondary school's best interest to also consider the classroom teacher's perspective on remediation, intervention, and grouping. Goss and Brown-Chidsey (2012)

suggest that the maximum effective group size is three to six students, as groups that are larger have not demonstrated equally strong results in basic reading skills. The long term effects of students receiving reading interventions can be noted by graduation and literacy rates (Blachman, Schatschneider, Fletcher, Murray, Munger & Vaughn, 2014).

This Record of Study should help determine which intervention type computer-based or teacher-directed is benefitting students more at Beasley Middle School. Reading teacher perceptions of interventions will be explored as they work directly with students and the reading curriculum. Because little data have been collected by AISD, this project will assist decision-making processes that benefits students. Using AIMSWEB MAZE screeners and AISD's MOY benchmark as performance measures, data were compared and analyzed.

CHAPTER III

PROBLEM-BASED STUDY DESIGN

Participants

Beasley Middle School is located in Aberdine, Texas and currently has 1,000 students enrolled in the 6th-8th grades. Beasley was founded in 1993 in an affluent Southwest Aberdine community. As demographics within the area have shifted, so too has the school population. Currently within the school, twenty-five countries are represented and six languages are spoken among the student population. Approximately, 48% of students are of low socio-economic standing and receive free/reduced lunch. Although there is a high percentage of students who receive free/reduced lunch provided by the federal government, Beasley is not considered eligible for Title I funds which are allocated to schools with over 50% of the schools population being of low socio-economic standing. One challenge facing Beasley is that beginning in 2012-2013 became a No Child Left Behind (NCLB) school that receives 300 hundred low socio-economic students, most of whom read far below grade level. The students not only face academic challenges, but also must adapt to a new school environment and culture. The majority of these students do not read on grade level.

Within this diverse population, Beasley has enjoyed the distinguished honor of being a Texas Education Agency "Recognized" campus. Under the State of Texas accountability standards, "Recognized" is the second to highest honor for academic excellence on state achievement tests with at least 90% of all students meeting

proficiency standards in the subject areas of reading, mathematics, science, and social studies. Beasley has enjoyed this honor four of the last seven years.

Each 6th grade student at Beasley receives 46 minutes of language arts instruction coupled with a double block of an additional 46 minutes of reading instruction per week. All students are required to read a book of their choice at home for 30 minutes per night and complete a reading log, which requires them to identify the main story elements, characters and challenging vocabulary. To ensure students are reading their material, they must participate in the Accelerated Reader (Renaissance Learning, 2014), a progress-monitoring tool that allows teachers to gauge student learning and provide student feedback.

Participating students (N=16, age range 11-12 years) recruited through parent consent and student assent were placed in intervention groups. All students taking part in intervention classes were invited to be involved in the study; the option to not participate was given to students and parents. Students were selected for intervention groups because of their previous year's STAAR scores and/or their current year's fall AIMSWEB screener. Participating students had a mean STAAR score of 28 (30 was the STAAR 2012 passing standard) and had a mean AIMSWEB score of 10.93 (18 was the grade level target score). Participating students were evenly matched in terms of scoring on both the 2012 STAAR and the AIMSWEB MAZE pre-test screener. Students were divided randomly and equitably into either the teacher-directed or computer-based intervention group. Table 2 outlines the skills and TEKS covered in the Study Island software program.

Table 2 Targeted 6th Grade Reading Skills of Study Island

Skill	*Feature*	*TEKS*
Root Words and Affixes Including Foreign Words or Phrases	Reading and vocabulary development; Determine words derived from Latin, Greek, or other linguistic roots.	6.2 A, 6.2B, 6.2D,
Context Clues/Multiple Meaning Words	Reading and vocabulary development; Use context to determine meaning of words; Complete analogies	6.2C, 6.2D
Using a Dictionary, Glossary or Thesaurus	Reading and vocabulary development; Use a dictionary, glossary or thesaurus to determine word meaning.	6.2E
Genre and Themes Using Text Evidence	Inferencing specific theme from fiction; analyzing stylistic elements in literature from differing genres and cultures	6.3A, 6.3B, 6.3C
Reading/Comprehension of Literary Text/Poetry	Using text evidence to make inferences and draw conclusions about the structure and elements of poetry including the use of figurative language.	6.4
Reading/Comprehension of Literary Text/Drama	Using text evidence to make inferences and draw conclusions about the structure and elements of drama including the use of figurative language. Using text evidence to explain similarities and differences between texts.	6.5
Reading/Comprehension of Literary Text//Fiction	Summarizing elements of plot development, recognize dialect and conversational voice; describe different forms of point of view-first and third person.	6.6A, 6.6B, 6.6C
Reading/Comprehension of Literary Text/Non-Fiction	Using text evidence to make inferences and draw conclusions about the structure and elements of non-fiction; identify literary devices and language used in memoirs, personal narratives, and autobiography.	6.7
Reading/Comprehension of Literary Text/Expository Text	Summarizing main idea and supporting details in text; explain how to formulate and argument; explain different organizational patters develop the main idea and author's point of view.	6.10A, 6.10B, 6.10C, 6.10D,
Reading/Comprehension of Literary Text/Persuasive Text	Compare/contrast two authors writing on same topic using text evidence; Using text evidence to make inferences and draw conclusions about persuasive structure; identify faulty reasoning	6.11A, 6.11B
Reading/Comprehension of Literary Text/Procedural Text	Following multi-task instructions; interpret factual, quantitative or technical information presented in graphs, charts, timelines etc.	6.12A, 6.12B,

Participating teachers in the study (N=2), teachers who had taught interventions previously (N=4), and single administrator (N=1) were recruited based on their experience teaching reading for five or more years and having a 90% or higher passing rate in their class on the STAAR reading test. Teachers have an average of 15 years of experience in the teaching profession (M=15.16, SD=8.25) and all are certified in English Language Arts and English as a Second Language. The group's composite experience ranged from 7 to 26 years in teaching. School staff participants were recruited via email and individual conversations regarding their role in the study, the purpose of the study, how information would be utilized, protocols, and confidentiality of statements. Teachers and the sole administrator gave their written consent to participate in the focus group and interview.

Instrumentation

Both types of interventions, computer-based or teacher-directed, served as the independent variable for this study. Using a mixed methods approach, student performance was analyzed using two different assessments the AIMSWEB MAZE and MOY benchmark. This study also included a qualitative element that asked teachers to identify their feelings about the effectiveness of teacher-directed and computer-based interventions (Table 3). Using a pre-test and post-test design (Shadish, Cook, & Campbell, 2002) the AIMSWEB MAZE was given to participating students prior to interventions beginning and after receiving either computer-based or teacher-directed interventions. The time between pre- and posttest was 16-weeks. Students were randomly assigned to either teacher-directed or computer-based intervention groups.

The MAZE test is a CBM that assesses students for their correct answer choices without penalizing them for incorrect answers. The MAZE assessment measured the number of words selected correctly up to the last circled word. The incorrect answers are then subtracted from the total number of items attempted (Shinn & Shinn, 2002). This assessment is designed to measure reading progress over a short increment of time so that educators can adjust the curriculum accordingly.

Also, the MOY language arts benchmark created by AISD (2012) served to gauge students' proficiency using a 100-point grading scale (Nitko & Brookhart, 2007). Because the benchmark test is modeled after the STAAR exam, a 61% cut score, set by AISD for proficiency was used. Benchmark validity is ensured by using p-values and point biserials. Based on the format for interviews established by Cresswell (2007), teachers and an administrator participated in a semi-structured focus group in order to provide insight into which intervention method, teacher-directed or computer-based interventions, benefited students the most. An analysis of large themes and ideas emerged from the focus group and participants were then questioned further in single interviews.

Table 3 Focus Group & Interview Questions of Teachers and Administrator

Focus Group Questions	1.) With your 6th grade ELA intervention students, do you notice a difference in their reading ability since receiving interventions? What example can you provide? 2.) What difference in academic skills between those students who receive teacher-directed or computer-based interventions if any do you see? 3.) What are your expectations of interventions for student outcomes? Do you feel that one intervention type will succeed over another in the support of learning for students? 4.) Do you feel that either intervention type is not supporting the learning of students? Why? 5.) How can we improve the system of delivering interventions?
Interview Questions	1.) In the focus group it was mentioned several times that the participants feel that teacher-directed interventions made a stronger impact on student learning, but it needed to be in small groups of five students. In your opinion how do we as a campus mitigate the large number of students needing intervention and the number of qualified intervention teachers available? 2.) Dropping students to the appropriate level through building blocks is a key part of Study Island, does this shore up the area of weakness? Could Study Island be changed in this capacity to assist students and teachers? How so? 3.) Student motivation was a recurring theme in the focus group. Do you feel that unmotivated students need to be with a teacher more than on a program like Study Island? How could intervention teachers motivate these students? 4.) Should interventions incorporate both teacher-directed and computer-based instruction? If so, what would you suggest the time ratio for each be? Should this vary based on student reading ability/level? 5.) It was discussed in the focus group that the time of day students received intervention was critical. It was mentioned to pull students out of electives; however there are state requirements that do not allow for this in 6th grade due to physical education and fine arts stipulations. How could we as a campus adjust this to meet the needs of students?

Because student data was used, approval from Institutional Review Board (IRB) was obtained to ensure the interests of the children were served. Additionally, permission from AISD's Department of Research and Evaluation was acquired to use student data. Focus group and interview participants were made aware to which purposes their statements were made and permission from each was obtained before research

began. Coding techniques were used to protect the anonymity of all participants. The focus group was led by an independent facilitator in order to remove bias from the researcher at the request of AISD.

Procedures

For this Record of Study the dependent variable was student achievement on the AIMSWEB MAZE screeners and AISD MOY language arts benchmarks. Both teacher-directed and computer-based interventions had certified teachers preside over the students. Teachers who were supervising computer-based interventions selected reading lessons based on student proficiency levels on the MAZE and previous year's STAAR test. Similarly, teachers who supervised teacher-directed interventions used the same data to form their lessons. Teacher-directed interventions did not have prescribed curriculum, but regularly conferenced with classroom reading teachers to discuss students' learning needs and collected anecdotal data of progress. The teacher-directed intervention classes read the novel *Face On the Milk Carton* (Cooney, 1990) which is a high interest, lower level novel. Because the teacher-directed intervention group required the teacher to continuously assess student progress a set-curriculum was not a prerequisite within this study. The researcher collected data from the fall and winter AIMSWEB MAZE screeners and the AISD MOY language arts benchmark for all participating students.

Participating reading teachers in the focus group met for one 45-minute session with an independent facilitator. The facilitator received a copy of the Focus Group Protocol prior to the session. The session was recorded and transcribed by the researcher.

Additionally, those teachers who participated in the focus group met with the researcher for a one-on-one interview to probe key themes and ideas that emerged from the focus group. The researcher transcribed all interviews.

Data Analysis

The results of the Record of Study were detailed as delineated by Shadish, Cook, & Campbell (2002) in *Experimental and Quasi-Experimental Design for General Causal Inference* for a pre-test/post-test design study. Statistical procedures were used to show which intervention type, teacher-directed or computer-based yielded stronger student results and differences for the AIMSWEB Maze screeners and the 6th grade MOY language arts benchmark. In order to provide consistency, the researcher utilized mean scores, standard deviations, t-scores, and correlations. Performance reports of student performance were created in Microsoft Excel by the researcher in order to determine comparison data sets. The data sets were then statistically analyzed to compare the differences in mean scores, percentages, and t-scores. Due to the small sample size it would not be appropriate to use more rigorous statistical methods, which is acceptable within the criterion set forth for Record of Studies sanctioned by Texas A&M University. However, the researcher attempted to triangulate the quantitative and qualitative data to justify explanations provided within this study.

Teacher focus group results were categorized and coded by response by the researcher and questions based on the results were created for the interviews. Five questions emerging from the focus group were asked of each teacher pertaining to structure of interventions groups, use of Study Island and student engagement.

Individual teacher responses were then categorized and coded by response again by the researcher into three major themes: 1.) instructional design, 2.) engagement of struggling students, and 3.) allocation of resources. Table 4 outlines data sources, collection, and analysis.

Table 4 Data Sources, Collection, and Analysis

Data Sources	*Collection*	*Analysis*
MAZE Screener	Collect MAZE screener data from AIMSWEB data base at the beginning of the year (August) and at the mid-point of the year (January).	A comparative analysis of students' performance by taking an average of individual scores from the beginning of year and midpoint were tabulated to gage proficiency.
ELA 6 Benchmarks	Collect benchmark data at the mid-point of the year for students who participated in interventions computer-based or teacher-directed.	Based on the 61% proficiency score, students ELA 6 scores were analyzed for patterns of growth.
Focus Group	One focus group session with six ELA teachers and one administrator.	Transcriptions of the focus group were created and analyses of large themes were used to compare teachers' and administrator feelings of the effectiveness of teacher-directed and computer-based interventions.
Open-Ended Interviews of Teachers	One-open ended interview with six teachers and one administrator from the focus group.	Transcriptions of each interview were created from the audio recording. Interviews were coded and categorized based on themes.

CHAPTER IV

RESULTS

This Record of Study examined which intervention type, computer-based or teacher-directed, was more effective in assisting remedial reading students. Quantitative data below will show that computer-based interventions using the software program Study Island were more effective than teacher-directed interventions. Through a teacher focus group and subsequent interviews, however, teachers noted the importance of teacher-led instruction and the possibility of using technology as a tool to aid interventions.

Findings Research Question 1

Which intervention type, teacher-directed or computer-based is most effective in assisting students in reading?

The primary research question of this Record of Study was to determine which intervention, computer-based or teacher-directed, was more effective with struggling 6th grade language arts students. As mentioned previously, a total of 16 students participated in the study and randomly were assigned to either the computer-based or teacher-directed intervention group. The AISD database was accessed to retrieve MOY benchmark scores, as well as the AIMSWEB database maintained by Pearson Inc. in order to retrieve MAZE scores.

There was notable difference between the students who participated in computer-based interventions and those who participated in teacher-directed intervention. Computer-based intervention participants showed a higher mean score on

the MAZE winter screener (M=23.2, SD=4.34) than students who participated in teacher-directed interventions (M=16.83 SD=6.01), t (14) = 0.806, p > .05, r=.246. As .806 is greater than the critical value of .05, it can be considered a moderate effect size. As noted in Table 5, no students in the teacher-directed treatment met the proficiency score of 27 for the MAZE. Between the MAZE fall and winter screeners computer-based intervention participants showed a 10.2% gain in average score compared to the teacher-directed intervention participants who demonstrated a 9.33% gain in average score. Table 5 outlines the percentage of students meeting proficiency on MAZE and MOY.

Table 5 Percentage of Students Meeting AIMSWEB and MOY Proficiency

Measure	*Group*	*Percentage of Students Meeting Proficiency*
AIMSWEB MAZE-WINTER (Target Score=27)	Computer-Based	20%
	Teacher-Directed	0%
Middle of Year (MOY) Benchmark (61% Cut Score=Proficiency)	Computer-Based	60%
	Teacher-Directed	50%

On AISD's 6th grade language arts MOY benchmark there were 31 questions that tested students on comprehension, ability to make inferences, understanding of author's tone and purpose, and vocabulary through reading passages. Skills tested were based on the Texas Essential Knowledge and Skills (TEKS) of understanding and analysis across literary genres, understanding and analysis of literary texts, and understanding and analysis of informational texts. Sixty percent of students who participated in the computer-based interventions (M=69.97, SD=15.37) reached the cut score of proficiency

compared to 50% (*M*=59.03, *SD*=12.55) of students receiving teacher-directed interventions. The MOY is modeled after the 6th grade STAAR reading test and is used as a predictor of performance. The MOY benchmark has fewer questions as compared to the STAAR test which totaled 48. Because the MOY benchmark is used as an instructional tool to prepare for STAAR, it is not necessary for the test to be the same length or duration. By design, the MOY is more concise, but examines the same TEKS which still gives teachers an accurate assessment of students' understanding. Table 6 outlines the TEKS assessed on the MOY compared to the 2013 Released STAAR test and the number of questions asked per TEK.

Table 6 Comparison of Questions MOY & STAAR

TEKS Assessed	*Skill*	*Number of Test Questions MOY ELA 6 Benchmark*	*Number of STAAR Test Questions 2013*
6.2A, 6.2B, 6.2E	Reading/Vocabulary Development	6	6
6.3A, 6.3B, 6.3C	Reading/Comprehension of Literary Text/Theme and Genre	2	10
6.6A, 6.6B, 6.6C	Reading/Comprehension of Literary Text/Fiction	6	10
6.8A	Reading/Comprehension of Literary Text/Sensory Language	3	10
6.RC	Reading/Comprehension Skills	14	18

Findings Research Question 2

What are teacher perceptions of interventions at Beasley Middle School? To what extent do teachers perceive interventions to be implemented effectively? To what extent do teachers believe both types of interventions impact student learning?

The second research question posed was to evaluate teachers' perspectives on effectiveness and implementation of computer-based and teacher-directed interventions. Three major themes emerged from the focus groups and interviews with participants: Instructional Design of Interventions, Engagement of Struggling Students, and the Allocation of Resources. Table 7 outlines the major themes that emerged from teacher interviews.

Instructional Design

All teacher and administrator participants felt that computer-based interventions were not enough to shore up weaknesses in students' ability to read proficiently and make meaning out of the text they encountered. Although consensus was that computer-based interventions provided the opportunity to reach more students, participants were not convinced that computer-based instruction alone allowed for corrections of misconceptions in thinking and understanding of students' general thought processes. Thus, how well teachers utilized computer-based interventions in conjunction with instruction best described participants' views of effective interventions. During the focus group, one teacher shared their viewpoint of students' transference of skills between the computer and the classroom:

> It's like they understand how the computer works better. They understand how to work that program better. But they don't transfer that same skill to the classroom or to independent reading. If you can sit down with a child and know that they need intervention and just intervene with them working with a computer or whether you are working with the [STAAR] test it's a 100% better.

Suggestions and viewpoints of how the structure of interventions needed to be modified were present in both the focus group and interviews. All participants felt that interventions should be delivered with a small student-to-teacher ratio of eight students to one teacher. When probed further, teachers and the administrator noted that in order to find out the source behind students' lack of understanding a teacher had to be actively engaged with students. Also, all felt that if computer-based interventions were employed, a teacher had to be present to deliver instruction in conjunction with tailoring the computer program to the students' areas of need and that the two intervention types should not be separated.

A teacher explained their rational for using a combination of teacher-directed and computer-based interventions:

> Even when you are using the computer programs, I think it is necessary for a teacher to be interacting with the students as they are doing it. Figuring out where their thought processes need assistance and what their actual misunderstanding is.

Another teacher proposed the following idea for structuring intervention groups during the individual interview:

> I think it would be nice if there was a way to have 10 kids in the group or 12 kids in the group with a teacher. You would need to group them by what skill they need. But the teacher meets with five of them while the other five are on the computer and then flip after 20 minutes. So like a guided reading group.

The time of day when students received intervention became a focal point for teacher participants. All noted that the time of day interventions were held was critical for struggling students to retain information. Under the current intervention structure, students at Beasley Middle School receive all interventions during the last period of the school day. Teachers agreed that students who have the highest need in language arts are often tired, silly and unfocused at the end of the day.

During a teacher interview, one idea that a participant gave was to shift the time of advisory in which interventions are provided:

> If there was a way we could move advisory to the morning and have them do it [interventions] during then instead at the end of the day that's the only thing I could think of to do. Because at the end of the day I think they are just tired and they don't want to do it, but I mean, that would require a whole schedule change.

Within the discussion of the structuring of interventions, a teacher brought up the concern of scheduling advisory, interventions, and budget. The teacher notes that moving advisory and intervention time may not benefit the majority of the school population and fiscal concerns:

> The only other option would be an extended school day which is just going to be later in the day. Or a Saturday which is going to be money. Because you have to

> open the building and you've gotta pay people to be here. Unless we look at moving that time within the school day and I'm not sure how that can be done because 8th period seems to be very beneficial for the students who are not in Study Island. And I mean I know that that minority need the help, need the help, but at some point in time we are dealing with budget.

Suggestions for scheduling interventions ranged from having a rotating bell schedule several days per week to changing the intervention class period to the beginning of the school day to capture prime learning time.

Engagement of Struggling Students

The question of how to engage struggling students was an additional theme that emerged within individual interviews. Teachers offered multiple methods of trying to motivate students. For computer-based interventions all participants agreed that the attractiveness of the games in Study Island a motivating feature. Yet, the teachers and administrator alike all stated that the students who are participating in interventions are often not self-directed are prone to behavior problems and randomly answering questions to get to the games. Participants agreed that teacher-directed interventions that used computer programs like Study Island to reinforce learning resulted in better student engagement than using direct instruction methods alone.

The administrator in the focus group shared her teaching experience of struggling and on grade level students needing teacher support with Study Island:

> When I was teaching I had kiddos do the same thing [Study Island], and the ones that I thought were really low they need that extra person there to help guide

them through there and think some things through otherwise there clicking and going.

Teacher participants noted that finding reading text that students found interesting would assist in generating enthusiasm for reading.

A teacher stated:

> I think that Study Island can't be the only resource because it is monotonous and if you are always failing it can't be very motivating even if it has little game aspects. There's got to be a better way to find text that they care something about. It's hard to just pull boring passages like those test prep books. Those passages are not interesting so finding a way to get text that they would even care about; the topic. Like those Scope magazines. They're too high of a level for struggling readers, but they are way more interested in what those passages are about so they are more willing to read them. Then you could talk about it. So I think that is one of the most important things is finding something that they'll want to read.

Because intervention students do not perform on grade level, teachers felt that students needed multiple opportunities to experience success during interventions. Notably, if using Study Island, the teacher can turn on the "building blocks" feature that alters the passing standard for specific skills from 70% to a percentage of the teacher's choice. At least four participants were not aware of this feature in Study Island.

During discussion of this topic during the teacher interview a teacher noted the rationale for altering the building blocks to match the STAAR passing standards:

> I think 60% would be fine because it can be really discouraging for them to be very behind where they feel like there is no hope. And honestly our state assessments are designed to where they don't need to get 70%. Which I don't know what that says about how they're [STAAR] passing standards] being designed.

Also, extrinsic rewards were viewed as a necessity to motivate students. Suggestions included stickers, small prize, and/or note of praise from the teacher to build feelings of efficacy within the student. It was noted extrinsic rewards might encourage students to feel more accomplished and to work harder to attain literacy skills.

Allocation of Resources

Participants were concerned about the allocation of human capital and time within the school day to assist struggling students. This distribution of precious resources proved to be important discussion points among focus group/interview participants. All participants felt that there is a lack of available teachers and time within the school day to meet the number of students who needed remediation. Suggestions included: 1.) solicit community financial support, 2.) ask for volunteers, 3.) schedule before and after school interventions, and 4) require an extra elective of reading for students in addition to the 90 minutes required during the school day for sixth-grade English-Language Arts students.

One teacher's perception of needing volunteers came forward in the focus group:

> A lot of schools have volunteers to work with the kids, one-on-one and do all sorts of reading interventions and I kind of wish we had that here where we could get people to come in and work with these middle schoolers because it's not like it just stopped in elementary school. They continuously need one on one attention in reading throughout school. And I wish we could get volunteers for middle school as well to work with them more one on one to focus on their school and personal needs. But, I don't know how we would be able to do that.

Within the focus group the administrator and a teacher both noted the reason for not being able to garner support from community volunteers to assist with interventions:

> Administrator-Yeah that usually what happens with my experience with the Partner's in Education. A bunch of schools in Aberdine will be listed, and ours won't ever be on there as one that they would send assistance. I think it's because we're not Title I. And I've actually went to meetings before and tried to advocate for our school for that and we did not get anything. I know where we are, but we do have this need and we do need this.
>
> Teacher-A lot of parents send their kids to our school because they want them to get their education and we do need the support for those little kids and that is kind of sad.

Yet, how these opportunities for students were to be scheduled and financed was left in question in both the focus group and interviews. This is to be expected as teachers have little knowledge of the school's scheduling and financial status that prevents participation in community programs that requires a lower socio-economic status of

student population than Beasley currently has enrolled. Table 7 summarizes the major themes discovered in the teacher interviews.

Table 7 Major Themes of Teacher Interviews

Theme	*Conclusions*
Instructional Design	• More intervention needed beyond Study Island. • Smaller teacher student ratio. • Small group pull out with teacher needed within computer-based interventions.
Engaging Struggling Students	• Computer-based games motivator for students. • Extrinsic rewards a must. • Reinforcement of instruction needed in both computer-based and teacher-directed interventions. • Time of day critical to interventions for struggling students.
Allocation of Resources	• Teachers felt more support needed in terms of staffing for the number of students needing intervention. • Solicitation of outside support needed to fund both staffing and computer-based interventions.

CHAPTER V

CONCLUSION

Results demonstrated that students who participated in computer-based interventions outperformed their peers on the MAZE and MOY benchmark. This discrepancy between the two intervention groups on the assessments, demonstrate the need for standardization throughout the intervention curriculum. A possible explanation for the computer-based groups outperforming their peers is the requirement that certain skills be mastered before moving to another within Study Island within a prescribed scope and sequence of skills. Through the computer program's system of building blocks which requires a student to master reading skills at a lower level if they do not demonstrate proficiency at the grade level that should correlate with their age. When students did not meet the proficiency standard they were automatically required to review missed skill sets in a game format. For instance, if a 6th grade student did not reach the proficiency standard in root words and affixes the computer program automatically would adjust the level of difficulty to where the student could be successful and then gradually increase the level of difficulty.

Students in the teacher-directed group did not have to follow a curriculum, but worked on oral reading fluency, comprehension skills, and listening skills through reading high-interest, lower level reading selections. The teacher-directed intervention group began with students reading *Face on the Milk Carton* (Cooney, 1990) in a guiding reading format. Within the classes, students engaged in discussion of literary elements and plot development which did not necessarily require them to perform written tasks,

but rather engage in academic conversations. This is supported by Zwiers and Crawford (2011) who note that conversations during reading assist students in making meaning of text, processing of information, and motivate students to continue reading.

The issues mentioned above raise the question of fidelity within instructional delivery of interventions. Teacher-directed interventions in terms of program fidelity were not required to have a set lesson plan for each session, but relied on the intervention teacher discussing students' learning needs with the classroom language arts teacher and anecdotal data. Although in the focus group it was stated that teacher-directed interventions were superior to computer-based interventions due to the ability of teachers to assess students' needs. Yet computer-based interventions showed that participants with stronger growth patterns were able to reach some level of proficiency with 60% of students passing the MOY benchmark.

Summary

In this Record of Study the objective was to explore whether teacher-directed or computer-based instruction benefitted struggling students more within an intervention setting. As students were randomly assigned to each group, all took the AIMSWEB MAZE screener prior to intervention delivery and after intervention delivery at week 15. After eight weeks of interventions students were assessed using the MOY.
Students who participated in both kinds of intervention had lessons tailored to their performance based on the previous year's STAAR test and current year MAZE screeners. Both groups had interventions delivered twice per week for 45 minute

sessions. Furthermore, teacher and administrator qualitative viewpoints were collected via a focus group and individual follow up interviews.

The following questions guided this Record of Study:

1. Which intervention type, teacher-directed or computer-based is most effective in assisting students in reading?
2. What are language arts teachers' perceptions of interventions at Beasley Middle School? To what extent to teachers perceive interventions to be implemented effectively? To what extent do teachers believe both types of interventions impact student learning?

The findings of this Record of Study will assist campus leaders and teachers at Beasley Middle School in determining which intervention is most beneficial to students, whether it is computer-based or teacher-directed. This study concluded that both are equally as effective due to the small sample of participants which cannot be generalized outside of the specific school setting. In funding teacher-directed interventions more human capital is needed than computer-based interventions. Computer-based interventions require technological capabilities of high-speed internet and a teacher constantly monitoring students. More students can participate in computer-based interventions due to the capability of programs like Study Island. This provides immediate feedback and adjusts instruction based on proficiency levels.

Conclusion Research Question 1

Reading interventions for 6th grade students at Beasley Middle School were studied to determine which intervention type, computer-based or teacher-directed was

benefitting student learning the most in order for students to meet proficiency standards on the STAAR test. Student data was collected and analyzed with the permission of the AISD, in addition to qualitative data that was collected from teachers and an administrator. Outcomes demonstrated that 6th grade students who had participated in computer-based intervention group performed better on the MAZE Winter screener and MOY language arts benchmark. Meyer, Wijekumar, and Lin (2011) found that posttest scores were higher with web-based tutoring of non-fiction as an intervention for 5th grade students than for those who received traditional instruction. This is consistent with the findings in this Record of Study in which computer-based interventions revealed a stronger percentage of growth between MAZE screeners as compared to the teacher-directed intervention group. Computer-based interventions allow for a larger number of students to receive tailored intervention while providing immediacy of feedback. Additionally, computer-based interventions allow for students' proficiency levels to remain anonymous to their peers, while allowing the teacher to modify content.

Conclusion Research Question 2

Teachers who represented both interventions learned about each other's' work and then contributed ideas to improve interventions. Although this study only examined teacher-directed or computer-based interventions teachers suggested in the focus group that a hybrid of interventions might benefit students more than just one or the other. This was probed further in the individual interviews.

One teacher stated:

> I would think maybe during the first part of the week teach the skill that we know is going to be tested through Study Island and do more of teacher directed learning. And then, even pull up the Study Island lesson with that instruction so you have the Study Island lesson the next time you meet that week let them go solo and let them transfer that learned knowledge into the Study Island. I think that would be beneficial.

Rationale for this hybrid view was that games were a primary motivator for Study Island and that students' attention would be diverted from reading passages in order to play the games. In order for interventions to be effective, the consensus was that the intervention teacher needs to engage students through direct instruction of reading concepts, but also to monitor behavior in Study Island. Likewise, interview results indicated students who lacked motivation needed direct interaction with the teacher in order to maintain focus and assist in building student efficacy. This is consistent with finding from Vaughn et al. (2009), in which student efficacy is directly linked to academic competency. Most interviewees cited specific student examples of motivation and offered opinions on whether Study Island was effective in working on basic reading skills and concepts. All felt that "something was better than nothing" for students receiving reading interventions whether teacher-directed or computer-based. Teacher perception of students' academic skills also affected their view of whether or not interventions would be effective for specific students. All teachers stated that students first needed time with a teacher who would pre-teach and/or re-teach concepts, then

begin work on those skills utilizing a computer-based program with intensive monitoring.

One teacher commented:

> I think it depends about what motivates the students. If you have somebody who is enjoying the one-on-one [on the computer] to leave them there. But, there are some of them [students] who definitely benefit from a teacher. I can think of some of mine that have IEPs that it actually says that the student best benefits from forming a close personal relationship with a teacher. Those students would probably benefit more from teacher intervention than Study Island.

Student perceptions of motivational factors (which were not explored in this study) versus teacher perception of motivational factors seemed to be an unexpected tension point between the two groups. Guthrie, Hoa, Wigfield, Tonks, Humenick, and Littles (2007) indicate in their study of reading motivation in late elementary school that student perception and motivation is linked to teacher practice and behavior. Thus it is to be expected that teachers within this study would have bias toward their own methods of motivating students.

While it was noted that there was variance between students due to personality and proficiency levels, which can determine the success of either type of intervention, teachers discussed the irreplaceable role of the teacher at length. All agreed that guided instruction of a small group of students superseded computer-based intervention. Rationale for this was based on the premise that guided instruction is focused not on taking a test, but on skills that are taught in a reading context with active discussion and

questioning. Powell, Aeby, and Carpenter-Aeby (2003) found that students who participated in computer-facilitated instruction in conjunction with teachers who taught remediated concepts did better than those students who were solely placed on the computer reviewing material.

Focus group participants indicated that limitations of time and human capital hindered intervention efforts. Because the school does not meet federal guidelines to receive Title I monies, services that are given at other campuses are not offered at the school. As a result, local resources from groups in the community are scant and volunteers are directed to campuses that fall under the Title I umbrella. Teachers and the participating administrator felt that, although many attempts have been made to advocate for the school to receive community assistance, there is a dearth of resources for a school that has only 48% of students who are of low socio-economic standing.

Focus group and interview responses revealed that teachers were not aware of what interventions were or were not taking place and the frequency with which they were being provided to students. Teachers were only partially aware of which teachers were delivering interventions whether computer-based or teacher-directed, even though this was communicated through faculty and department meetings by the school leadership team. Furthermore, it appeared that more training was needed to understand all of the features of Study Island for intervention teachers.

Study Limitations

Elements that could be questioned in this Record of Study due to extraneous factors are attendance, time of day intervention was delivered, and teacher and student knowledge of computers. Attendance by participating students could have affected study outcomes due to not attending intervention sessions. Computer-based intervention participants attended an average of 53.13% of the 15-week period; whereas teacher-directed intervention participants attended an average of 60% of the 15-week period. Due to the limited attendance of participants within intervention classes, the question is raised about how outcomes could have be different if all students were in attendance for the 15-week period. Also, consideration must be given to how teachers at Beasely value the time set aside within the school day for interventions. Time is scheduled at the end of the school day for interventions and classroom teachers are responsible for sending students. Students may have been present during the school day, but were not sent to intervention classes. Thus, how staff perceives the value of interventions and their commitment to sending students affected the outcomes of this study.

Further exploration with a larger number of participants is needed to more conclusively determine which intervention type is more effective. Sample size was definitely a limiting factor. As participant numbers are not large enough to comprise a valid sample in order to arrive at definitive conclusions, the researcher suggests using caution when interpreting data. Although multiple attempts were made to garner parent consent, many felt that their child's information was too visible to the public even

though assurances and coding techniques were verified by Texas A&M University and AISD.

Implications for Future Research

Implications for future research include examining student progress of those who received computer-based interventions supported by direct reading instruction over a long period of time. While both computer-based and teacher-directed instruction have been studied at the elementary levels, more research is needed at the secondary level to see if indeed combinations of both types of intervention benefit students who are in need of intensive reading instruction.

Additionally, as Tier II reading interventions are critical to the improvement of skill acquisition many adolescents have experienced repeated failure on the STAAR test and other standardized reading assessments. Research is needed to compare computer-based intervention programs for secondary students. CBM tools are employed such as the MAZE screener to gauge student progress for those students receiving interventions, thought must be given to the effects of timed testing on students and if it indeed is an accurate measure of student knowledge. Research is also needed to determine which motivators, intervention types, and CBMs work best to assist students who have had repeated struggles with reading. Student and teacher perceptions of interventions and motivators should be explored to support quantitative data collected.

A critical addition to reading interventions is the need for professional development regardless of type utilized by schools. This study did not evaluate the extent of professional development for teacher participants of computer-based or

teacher-directed interventions. Within the framework of student learning, the amount of time spent by teachers devoted to professional learning potentially impacts student learning and progress. Savage et al. (2010) notes that teachers must have a working knowledge of computer programs used during instruction in order to affect student learning. The authors assert that students cannot be left alone to work on the computer, but must interact with the teacher for feedback. Future research of reading interventions at the secondary level, tracking professional development, teaching practice and student outcomes is needed.

Concluding Comments

As proficiency standards for passing reading standardized tests increase, the prevention and intervention techniques that schools use must become focused on building of basic reading skills and improving deficits. Tier II reading interventions that incorporate tailored instruction to students' varied learning needs while encompassing factors of engaging the adolescent learner and which format of interventions is best for each learner, will present an on-going challenge to educators. The question of how to encourage secondary educators to value interventions similar to that of core classes remains to be studied. Computer-based interventions are not to be dismissed when compared with traditional teacher-dominated efforts. Research literature and this study have indicated that they are a valid source in helping students. Yet, the role of teacher-directed instruction cannot be diminished as this too has been shown to be of great help to students.

School leaders must decide which intervention type best assists their students and do the intervention benefits outweigh the perceived negative aspects of the program. Vaughn and Fletcher (2012) suggest that secondary students who struggle with reading must continue with interventions in order to build academic vocabulary that reaches across the content areas. Regardless of reading intervention type computer-based or teacher-directed, interventions must incorporate the tenants of quality reading instruction and be implemented with consistency and continuous monitoring of student progress.

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APPENDIX A

Focus Group Transcript

J-I have this protocol I am supposed to read. In order to facilitate Bethany's note taking she is recording it, you've signed the release forms for that. For your information, only Bethany Logan as researcher will be allowed access to the recording which will eventually be destroyed after they are transcribed. In addition, you have signed the form in order to meet the human subject requirements of Texas A&M University. And you've done that. So in short this release form says that all information is confidential and your participation is voluntary and you may stop at any time if you feel you are uncomfortable. So, Bethany's planned this interview to last no longer than 30 minutes during this time I have several questions. The introduction-you have been asked to participate in this study because as a language arts teacher you have valuable information regarding reading interventions both teacher-directed and computer based. This research project focuses primarily on student, hello,

Admin: Hi.

J-Welcome. So, where was I? So, this research focuses primarily on student data and your views of student interventions and how they are delivered to students. I've got a series of questions to ask and you can choose to answer or not. And again thank you for your assistance. I will keep some notes and we have that (recorder).With your 6th grade ela students, do you notice a difference in their reading ability since receiving the interventions? Who wants to start?

T-There aren't only 6th grade teachers here.

J-What other grades are represented? We've got 6th and 8th.

T2-6th, No. But it just started. They've probably gone 4 times if they were at school on that day. So, I have a student who has only made it twice at this point to intervention.

J-So there are other variables based on attendance. Ok, how about for the 8th grade?

T3-Umm.Are computer based interventions for this year have not begun and they did do them last year. Umm, I think it did help to a degree help, it's difficult to separate what we were doing in class and as teachers from what they were doing on computer though. But, theirs scores on Study Island did improve and that showed that they were doing better.

J-Okay terrific. And when will the computer based interventions be beginning next year for 8th grade?

Admin-I would say in the next few weeks.

T3-And also in the classroom we will be using a new thing was it Activate 3000, uh that Bethany purchased in the 8th grade as well during class time so that all students are exposed to it.

J-Are there any examples that anybody can provide either 6th or 8th grade of where you think the interventions did make a difference? You don't have to name names, but you can say Student X or whatever.

T3-I know that when I did a class for students who failed the TAKS test, we did an intervention class during one of my conference periods and I could definitely see that Study Island motivated them. They wanted to be on the computer, they would read the

stories and they wanted the ability to play these games so I at least definitely say the motivation increase.

T2-I also think that the way the program works it actually forced them to slow down and take their time, they couldn't speed through it and they had to really think about it and because I did it with my class last year as well and it really worked with them.

J-Ok so the actual structure.

T2-Yeah, the structure of it made them, they couldn't guess, they had to take their time.

T3-Yes they had to take their time.

J-Ok great. Next question-what difference in academic skills from those students that receive teacher directed or computer based interventions if any exist that you've seen? Do you have students that have only have students that have had only teacher based interventions as opposed to computer based and have you seen a difference between the two?

T5-It's dramatic. A student that has a teacher intervention it is 100% better than if they work just working with a computer. And they can transfer it back to the computer based information or they can do back in the classroom. Where sometimes you will have a kid who needs intervention they go to the computer, they get better at doing it on the computer; they don't get any better doing it on their own.

J-Okay.

T5-It's like they understand how the computer works better. They understand how to work that program better. But they don't transfer that same skill to the classroom or to independent reading. If you can sit down with a child and know that they need

intervention and just intervene with them working with a computer or whether you are working with the test it's a 100% better.

J-So, individual attention really benefits?

T3-Even when you are using the computer programs, I think it is necessary for a teacher to be interacting with the students as they are doing it. Figuring out where their thought processes need assistance and what their actual misunderstanding is.

J-So, okay. (Teacher walks in.)Welcome. We were just discussing if you noticed any difference in the kids who have only received teacher-based intervention in reading as opposed to computer learning, uh the computer based interventions. Have you noticed a difference in their outcomes?

T6-I don't really think so, umm, my most recent frame of reference is from last year as our kids who are going now have only been going twice.

J-Okay.

T6-Maybe three times this week so I don't know that I can really answer that well. It's too early to tell.

J-But, anecdotally, based on previous years?

T6-I think anecdotally, it depends on the student.

J-Okay

T6-Umm, some of them really do want to improve. Umm and will do whatever it takes and some of them I mean they're just filling in seat time. You know I don't know that it would make any difference whether there was a teacher helping them versus a computer or not. That's probably the best answer I can give right now.

T5-Can I interject?

J-Sure.

T5-The kids are 6th graders that are going to do that program, this is what they said to me when they came back. Oh we met our teacher, she sat down and asked us a bunch of questions about ourselves, we're gonna read a novel together and we had taken it home to read it at home. They didn't say one single word about doing Study Island.

J-This was supposed to be a computer-based Study Island group?

T5-Yes.

T-Now I'm wondering because I know that there is a teacher that is teaching Face on the Milk Carton.

T5-Yeah, those are the ones that she drew out of my class.

T-Those are the 6th graders that are being pulled on Tuesdays and Thursdays with one particular teacher. I'd have to look at the list.

T3-I agree.

T-I don't think they are just going to get the novel. Is that the teacher?

Admin-If that is with one of the teachers, I think that is the book study group.

T-Which is the group you are referencing.

T2- My thoughts on Study Island related to your question is that I don't ever see a student who goes off to Study Island intervention in a group which these groups that are made probably have 20 or more kids roughly going down there. I don't see any improvement on a general basis from it. The only time I think Study Island is helpful for me, because I also do it weekly in our reading class, the kids who can't do it, can't do it.

It doesn't matter that there's a game attached to it, they are just clicking through it to get to the game. It's only if I am sitting alone with them, helping them. So, talking through the questions. Which is what you were talking about being able to help them process their thinking. So, I do that sometimes, they may be intervention kids that also go on Tuesday and Thursday, whatever days of the week or I pull them into my 8th period and if I work with them alone, I think they get much better.

Admin-I would agree with that. I think when I used to teach and I did use Study Island I didn't necessarily use it as an intervention tool. For me, it was more useful as a an assessment type tool to find out where students were after for example if you were doing teacher interventions with them it was a good way to check for understanding and see what did I need to reteach. I think it's more effective that way.

J-Okay. So it's an additional helpful tool is kinda what I'm hearing. It's not

T3-You need the teacher to see what's really wrong.

J-It's the one on one time.

T-In 6th grade what we're doing, not talking about the intervention groups, I'm talking about us in our classrooms, because we teach a reading elective umm, we have students do Study Island on the concepts that we have covered. In other words we don't throw a random topic in for them to test on, we make sure that we have talked about it in class and we've taught it. And then that's like reinforcement or a validation of their understanding. Or it sometimes or in some cases it clears up some misconceptions.

J-Okay, great. The next question is what are your expectations for interventions for student outcomes?

T3-Basically, just improvement in the areas that you're focusing on.

J-Okay, so you think it's better in specific areas rather than in general? As you just said?

T3-We usually pick certain things in areas they're weak in and __ ___ was saying, Study Island does show you specific areas that they are weak in, in those pre-assessments. But, yeah, I generally look for improvement.

T-And you can generally go back to specific topics that they're saying and they have little lessons that they can go over like we did last year. And they can read those and then go back and do the lesson. So some of that like the computer generated, I mean those two are driven by computers. I think that it works. But I don't think that it fits everybody, not everybody functions that way.

J-So individual learning styles are still…

T-Are still in play.

J-Do you feel one intervention type will succeed over another in support for learning for the students, so again I think we sort of just answered that, some students maybe, some students not depending on their individual styles. I mean I see lots of heads shaking, so.

T-I think the most effective intervention would be a teacher with an extremely small group of students, maybe five sitting with them in a guided lesson scenario, but I am also prior elementary school teacher in which that is what we would have done. I don't see how that could ever fit in a schedule system with over a thousand students school body, or around a thousand students, but if you're asking me the most effective intervention strategy is, it's not Study Island. It is guided instruction of a very small group of the students all needing the same skill.

J-How many of you would agree?

T6-Yeah I would agree with that. I think the biggest feeling of hopelessness is that we get whenever we are working with these kids is that we have them for 46 minutes and we have sometimes 30 at a time and even in that 8th period study hall/advisory class you know, today I had three that needed help, but I also had four that I had to keep saying, please stop talking…

J-Hmmm.

T6-Please get out your math so both the management issue. Yeah, if you pick out five of them who needed something, you could sit down with a guided lesson with something that is high interest to them that you know they will able to see results and you will be able to see results.

T2-Anything over five I think is too much. I mean even when we had our intervention group last year once we broke them up it was so much easier to work with them in a smaller group than in a larger group. Because then their needs were all over the place.

T-I think that is the problem with these intervention groups. The groups that are being dismissed to their rooms, and I don't even know every kid in the group, I just know my students that are in there and I will be like well that boy and that girl, yes they both need interventions, but they are at a very diverse place for what they need. You know, one student who is so low, there is no way that going and sitting in a room with those other 15 kids are just maybe two years below grade level versus being six years below grade level is gonna be effective. I do see value in them getting additional practice time with text and questioning and reading. But, my honest opinion on this is that Study Island is

only training them to take another multiple choice test and it's not teaching them to read. If our outcome is we want them to pass our STAAR test great, go sit them in front of a computer giving them multiple choice questions, but if our desired outcome is that they are prepared to be a proficient reader than that is not the right intervention.

J-Any other?

T1-I guess the essence of proficient reader though, Study Island I think just to clarify my understanding, Study Island is not for improving reading skills by the way the program is designed, it doesn't do fluency, it does do some comprehension because the passages are short, but you do have to read them to answer some of the questions. So uh my understanding is that Study Island is more focused on trying to get them to pass that STAAR test. I think that is my understanding behind it.

Admin-I would just kind of, just from listening to everybody, I agree with a lot of points, but I think if we want to as a campus have more effective intervention classes, I agree that we need less students in there. But, maybe we are using not only Study Island, but other methods to get concepts across.

T-Well that's why I'm interested to hear that one of the groups is reading a novel. I did not know that.

T1-That's sounds…

T3-That sounds like the TAKS class I did. We did Study Island once a week and the other four days were intervention. Those are your intervention groups and we had two teachers. We still probably had seven or eight students each, but that was I felt really a lot more effective.

J-Okay.

T3-And with these interventions we do 6th graders two days a week, 7th graders do it one day a week compared to one day a week. So it is very sporadic it doesn't have a lot of continuity.

T6-What I liked what __ was saying about the diversity of the students in the group and what they need. I had a class a couple years ago where two days a week I had one group of student and another two days a week I had another group of students and it was purely helping them with their deficiencies in reading and writing and I would have kids, well I already know how to do this and they did. I mean I could go back and look at their benchmark scores and they had completely mastered that concept and it became very difficult to manage even though I had maybe ten of them in there. So and so is work on this, and so and so is working on this, and you guys both need to be on this, and you are a little bit better at than you are. It was very difficult and I only had ten.

T-Is that for your writing?

T6-It was reading and writing. We worked on writing till the writing test, and then we did the reading till the reading test.

J-So some of what we've been saying feeds into this next question, do you feel that either intervention type is not supporting the learning of the students and why? Sounds like we've addressed some of these issues. If we could just flesh that out a little bit more. What I've heard is that the Study Island alone is not necessarily going to apply to every student and their individual needs. Is that a fair statement?

T1-Well there's one thing I do like about Study Island though, is that when you have a student is, let's assume that this particular student is trying. That's a big deal. Because sometimes they don't take it serious, but if a student seems to be trying and they are not mastering 70%, that is the number, it may be a little lower 69%, it's irrelevant one percentage point, but um the program will bump them down to what is called building blocks which puts the student below grade level and so it brings the test questions down to a lower skill so that they can get mastery of that before they can go back to on grade level. So, if you are in a smaller group environment, five would be good, I'm picking five because I have to agree with the smaller group, you could monitor that closer you could stand behind students to try to catch their deficiencies to help them master that. So, the program does have it built in where it will bring them down a level.

J-But, a lazy kid could purposely do that if they wanted to.

T-It still drops them. But, one student that I have, he does go to intervention, but like we mentioned we also do in class and he just clicked and I was working with him one on one in 8th period and he's like was gonna be for a grade? And I was like yes, we do take grades. His only reason for not even really…there was probably more than one reason, but one reason was that it was not important. But, then it dropped him into building blocks which was probably good because I worked with him on easier questions. But again, that was me and him.

Admin-Right, but you needed that teacher student interaction.

T-We were building ourselves back up. We need to work our way back up. So I actually agree. I do like the building blocks, but a kid might just click, click, click, and fall, fall, fall. You can be one down, two down, three down and then …

T5-Once you are three down it's a long ways. Like 70 questions just to get back up.

T-Depending on how you do it. I don't remember what your original question was.

J-Laughs. Do you feel that either intervention type is not supporting the learning for the students, if so why?

T-I think Study Island can be effective for students unless they are too low. I think Study Island is only going to be effective the way are using if they are …

T1-Bubble

T-One, two-if they are below that I don't think that it is going to be effective.

T3-I don't think it's not effective. I don't think either one is not effective. I think, they have their purposes but for different, it goes back to the kid. It just goes back to that.

J-Okay.

T1-Well, a couple years back though, I had a group that the librarian at the time and I worked together and she did not sit with them one on one because it was during a time where she could not do that. So I actually sent special Ed students to the library and they worked on Study Island and there were successes.

J-Oh, terrific.

T1-Not many, but I mean I think there was 8-10 students and there were two students that were not in building blocks with Study Island. Now, the other eight, but there were some successes with it, and that's with special Ed.

J-And what do you think might've caused that?

T1- Uhhh

J-What their interest was?

T1-It may have been that. I may be that they were allowed a space to go and just do, do it on their own without any other distractions or anything. It was just them and the computer and they didn't have to prove themselves or not prove themselves to anybody. You know I feel that that might be the case. Umm. The two students that were successful were uh they were passing their classes, but with special Ed, passing a class sometimes could be a true pass or it could be an inflated grade. So, but because I monitored them, you know I'd graph them, told them what to work on and it was good. There were some successes. They did better on some topics than others because the way the topics are, they start, the level of difficulty can be harder on some topics than others. Ummm.With that special Ed population, I knew not to go into some topics because I didn't know these students. These were not my students. So I truly did not know where they were academically. Other than I did know if they were passing or failing their classes.

T5-I would think it would be totally different if you were asking about regular or advanced students because the way they approach Study Island is far different than the kids who are behind. I have kids who do Study Island at the bus stop. If they are advanced, they are motivated and I have to hold them back. No don't go to the next skill let's work on this skill. And a regular kid who is right on reading level they can improve a lot, and that's the whole thing. And an advanced kid, they will just fly through that

thing and will say look how I compared to the other kids in Texas. They will show me how their scores compared to other kids in Texas.

J-Okay.

T5-And they go, they know how the whole system works. The thing is it's more like for me, it is more for kids who are on grade level or above grade level because it takes them further.

J-Does anybody else have experiences like that?

Admin-I will agree with that because when I was teaching I had kiddos do the same thing and the ones that I thought were really low, they need that extra person there to help guide them through there and think some things through otherwise there clicking and going. I will agree with that.

J-How can we improve the system of delivering interventions and just to recap some of the things I have heard, fewer students per group, umm, I can't read my own writing here, additional methods so something other than Study Island, other products like that, and regularity in scheduling. Those are three things that you all have already discussed. Are there any other improvements?

T3-If you could find students who are struggling in the same things, but that is like teacher dream world.

J-But, it's still…it's possible.

Admin-You would have to spend more time with the data, but it is possible.

T2-A lot of schools have volunteers to work with the kids one on one and do all sorts of reading interventions and I kind of wish we had that here where we could get people to

come in and work with these middle schoolers because it's not like it just stopped in elementary school .They continuously need one on one attention in reading throughout school. And I wish we could get volunteers for middle school as well to work with them more one on one to focus on their school and personal needs. But, I don't know how we would be able to do that.

T6-There was just a blurb in the local Southwest Aberdine newspaper IMPACT that comes out that said schools in Southwest Aberdine are teaming up with Partners in Education. Of course I read it and thought yay we're gonna get help and every other school but us is listed.

Admin-Yeah that usually what happens with my experience with the Partner's in Education. A bunch of schools in Aberdine will be listed, and ours won't ever be on there as one that they would send assistance. I think it's because we're not Title I. And I've actually went to meetings before and tried to advocate for our school for that and we did not get anything. I know where we are, but we do have this need and we do need this.

T3-A lot of parents send their kids to our school because they want them to get their education and we do need the support for those little kids and that is kinda sad.

T-I think that the interventions at the end of the day I really feel is a tough time for these kids. Right now, the way we have advisory structured there's not opportunity where the kids can get assistance from their teachers who are struggling in all their academic classes, so when they're pulled for these intervention groups they cannot go to that teacher for help because interventions take priority. And I think it's, and I know because

last year when I was doing intervention for math using Study Island kids would come in with I have to go see X teacher because I'm failing and it was hard for me to say sorry, you've gotta stay here, this is precedent. Anyway I think we need to somehow do interventions during the school day, not always during 8th period.

T3-Even doing it Monday and Friday instead of during the day, so that they could go to academic intervention.

T-Then they could get the academic help, because unfortunately these are our kids who are suffering academically not only because of a test or an assessment to determine if they're in an intervention group, but they are suffering in all their other classes especially, if their reading skills are low. You read in science, you read in world cultures, and now you read in math. You lose those opportunities. I think the interventions are good, but there's gotta be a better balance for the kids. They're too tired at the end of the day. Just too tired. There's a lot of drama that happens from 8am to 3 o' clock every day.

J-Yah think?

T-Especially in middle school. So, I think it might be better served if it was at a different time and the kids knew that they would miss electives, and they knew you would not go to pe on these days because you were doing intervention.

J-Okay.

T-Just a suggestion I have.

J-Any other thoughts for improvement? Yes, no. According to our timer I have kept you longer.

APPENDIX B

Teacher Interviews-Teacher 1

B-What do you think the student to teacher ratio should be?

1-Honestly, no more than 8:1. Five would be idealistic, with the numbers as large as they are, I would do 8:1, but would really no more than 8.

B-And group them by…ability and level?

1-Uhhhh….yes. And I would say, let's say you are going to group according to benchmarks and set your parameters. The lower the group then the teacher student ratio needs to be a little bit lower. Then your midrange you could do your eight. But on those really, really low try to keep it 5-6. And those midrange kiddos maybe a little bit better. It's like that bubble kid theory so you can catch those guys.

B-So we talked about in the focus group about the time of day students were receiving interventions and 8th period wasn't necessarily best. But, a lot of the electives and PE are state requirements and they have to have a certain amount of minutes in the fine arts and PE. How do we adjust to meet the needs of the kids?

1-So that you don't use the elective time?

B-In PE it's state law just like the fine arts are in 6th grade.

1-So in 7th and 8th grade you have a little bit more flexibility with your electives but with 6th grade you don't.

B-You have to have the fine arts and you have to have the PE.

1-So for 6th grade it would have to be advisory? And for 7th/8th you have a little bit more flexibility. And why does advisory have to be at 8th? Idealistically, advisory at the end of

the day makes sense because it is a catch up time for the other students. But, maybe we could get creative into some scheduling too. They would maybe have a different advisory period.

B-The idea came up that we have a floating advisory period where 8th comes first, then we have 1-7, the next day we have a second period time slot.

1-Then 2-7.

B-Then 2-7 then 1. That could be a possibility too.

1-You could do that maybe like just say always on Tuesdays and Thursdays so it doesn't get confusing for the teachers. You can just say on Tuesdays and Thursdays we are going to move advisory to the morning. And yeah, but then on Mondays we do character ed, then on Tuesday mornings are for homework they didn't do homework anyway in 8th period on Monday. So maybe it wouldn't be such an impact. Either way.

B-You could do it on Mondays and Fridays.

1-Where it doesn't hurt as much. But, yeah I do think that you could do that-I think it would be a great idea.

Teacher Interviews-Teacher 2

B-In our focus group we talked about that people feel that the teacher directed interventions made a stronger impact on student learning, but we need to have small groups. In your opinion how do we mitigate the large number of students needing interventions and the number of qualified intervention teachers?

2-So what was the second part?

B-So the question is the focus group said that we needed intervention groups of five, in order to make a difference, so how do we make that happen when we have such a large number?

2-The only thing I could think of, and that's what I tried to say in the thing is that if we could get volunteers that would be awesome, but I don't think that we can. Umm…or I guess if you were sticking to campus, I don't even know how you would do it. Ummm…unless you did it after school and that is the only way you could do it is to have individual teachers do it after school. But, I mean that's why I was thinking that we need volunteers to come in and help kids with reading and apparently we don't do that in middle school.

B-In Study Island they drop the students to their appropriate levels through building blocks, and do you think this actually helps them shore up their areas of weakness?

2-Yes.

B-And do you think we need to move the passing standard because the default is at 70? Do we need to move it up or down?

2-I think it needs to stay at 70. Unless, I mean, maybe 75 or 80 actually that way you can actually make sure that their doing higher that what they should be. That way you get the bubble kids.

B-Gotcha. Okay, so we talked about student motivation as a recurring theme in the focus group do you feel like unmotivated students need to be with a teacher more than with a computer program?

2-Yes.

B-How do you think that the intervention teacher can motivate these students?

2-Providing rewards. Ummm for getting I guess answers correct and actually staying on task, putting forth effort. Ummm some sort of rewards system whether it be stickers or treats of some kind.

B-Just something?

2-Yeah. Just something that they would enjoy.

B-I gotcha.

2-And there would probably be an effect.

B-Okay.

2-But if it's summer school kids.

B-Should interventions be both teacher directed and computer based?

2-Yes.

B-And what would you suggest the time ratio be?

2-I would say at least 45 minutes, preferably an hour, that's hard to do with the class time.

B-So, 45 minutes with teacher? And then 45 minutes with computer?

2-Yes, because I think they need the instruction before-hand.

B-Right. And do you think that we should group the students by ability level or reading level?

2-I would say reading level because if they are reading at a first grade level they can't necessarily keep up with the kids who are reading on grade levels, who have delays. It's a hard one.

B-So we talked about the time of day students received intervention and we talked about pulling kids out of electives, but the state requirements don't allow us to do that because we have to have a certain amount of minutes for pe and fine arts. So how do we adjust to meet the needs of the kids?

2-If there was a way we could move advisory to the morning and have them do it during then instead at the end of the day that's the only thing I could think of to do. Because at the end of the day I think they are just tired and they don't want to do it, but I mean, that would require a whole schedule change.

B-Right.

2-In the morning, I think some of the kids are too tired and don't want to do anything, so it just really depends on the kid. Again.

Teacher Interviews-Teacher 3

B-In our focus group we talked about that people feel that the teacher directed interventions made a stronger impact on student learning, but we need to have small groups of at least 5 students. In your opinion how do we mitigate the large number of students needing interventions and the number of qualified intervention teachers?

3-I think possibly doing more staggered interventions through the day would be a possibility or using some of the people like the TAs that maybe could cover 8th periods on some of the days and have the teachers do the interventions groups would be an option, but it would be a lot of work.

B-That's a good idea. And we talked about in Study Island they drop the students to their appropriate levels through building blocks, and do you think dropping them down a level will shore up their areas of weakness?

3-With the kids that I've worked with that have gone into building blocks, I generally feel like it helps for them to get practice at a lower level. It would be sometimes nice if you could drop them automatically and start there so that they didn't have to fail first. Actually I talked to __ about that.

B-Well we know how to do that.

3-Oh, I didn't know you could.

B-Yeah, we are going to have ___ to a quickie little training the Monday or Tuesday the week we come back to show you some of the cool tricks in Study Island.

3-Because there is this one kid who fails on his first try around, and it would be good nice if he would not have to fail first to get that reinforcement. So, I have seen. But then

there's some kids that click through where they're like three levels below and it is so hard to get them out that I don't know. It is so much more helpful is someone is actually helping them get through it.

B-Right.

3-I didn't know you could automatically drop someone so that is helpful.

B-Yes. Okay. so we talked about student motivation as a recurring theme in the focus group do you feel like unmotivated students need to be with a teacher more than with a computer program? How do you see that?

3-Unmotivated students to do well?

B-Yeah. Do they need the teacher to guide them and direct them or do you think they are better off with a computer where there is a single focus?

3-They are probably not motivated because they are not doing well so I would think a teacher needs to be the one that's helping them for sure.

B-How do you think we should motivate these students who are reluctant?

3-I think that Study Island can't be the only resource because it is monotonous and if you are always failing it can't be very motivating even if it has little game aspects. There's got to be a better way to find text that they care something about. It's hard to just pull boring passages like those test prep books. Those passages are not interesting so finding a way to get text that they would even care about; the topic. Like those Scope magazines. They're too high of a level for struggling readers, but they are way more interested in what those passages are about so they are more willing to read them. Then

you could talk about it. So I think that is one of the most important things is finding something that they'll want to read.

B-Gotcha. Do you think we should we incorporate teacher directed and computer based interventions instead of either or?

3-I think it would be nice if there was a way to have 10 kids in the group or 12 kids in the group with a teacher you would need to group them by what skill they need. But the teacher meets with five of them while the other five are on the computer and then flip after 20 minutes. So like a guided reading group.

B-So what do you think the time ratio should be?

3-While I mean in elementary school my reading group was always 20 minutes. Like 20 minutes they would say is what an upper level reading group is supposed to be. So, I don't know. You could get a lot done with five kids sitting at a table in 20 minutes if you know what you are doing. And if you know how to run it efficiently, where you do vocabulary, reading with a skill and like a recap at the end. Then you would flip. But, the kids on the computer though can't be asking you questions.

B-Right.

3-That would be an ideal group I think.

B-So, we talked about the time of day that students received intervention and we talked about pulling students out of electives. But we can't do that always because PE and fine arts are state requirements; so how do we as a campus adjust the schedule to meet the needs of the kids?

3-Well I mean, I think you have to really brainstorm lots of possibilities and talk through whether it would work or not. My first year advisory was in the morning and it was only 20 minutes. I didn't have a first period that year. But, do we need to flip the schedule. When I was in high school we had an advisory that was third period. It was an advisory type period. Ummm. Is that worth it? Is that the most valuable use of our time? Do all the teachers that have off 8th period English and math classes going to be completely done. I mean my afternoon is always my hardest. Holding them together to the end. So, those intervention kids could, I don't know how creative you could be. Could you make their intervention 3rd period advisory, then also have an elective for them 8th period? That's playing with your schedule a lot. How creative can you be to make it at a different time?

B-I don't know.

Teacher Interviews-Teacher 4

B-In our focus group we talked about how those participants feel that teacher directed interventions had a stronger impact on student learning.

4-Yes

B-But we needed to do it in small groups, maybe five.

4-Yes

B-How do we as a campus mitigate the large number of students that we need to give interventions to with the number of available and qualified teachers?

4-Wow. It would definitely have to be in order of most need. And I'm not sure it would have to be like who would we best be able to serve, like the kids that are close to passing or the ones that are so far behind. I almost think that those should be two different things.

B-In Study Island we talk about dropping the kids to the appropriate level through their building blocks to shore up weaknesses, do you think it helps to do this? Then, to bring them back up where they need to be as far as skills go?

4-As long as you don't have kids that see this activity as way to prolong something that they don't want to do. Like be in advisory. Because I can see kids wanting to subvert the system really easily.

B-So do you think we should change how Study Island is structured? Because we can go into the computer program and say your passing standard is at 60 just like a benchmark. Or do different things.

4-That might be good. I'm just not sure. I'm afraid that if you did that for all of them, you would be hurting a majority of them. There are only a few I have found that statistically are going to work to subvert the system. So, I don't know.

B-We talked about student motivation. Do you think that the unmotivated students need to be with the teacher more than on a computer program like Study Island?

4-I think it depends about what motivates the students. If you have somebody who is enjoying the one on one, the computer one on one, to leave them there. But, there are some of them who definitely benefit from a teacher. I can think of some of mine that have IEPs that it actually says that the student best benefits from forming a close personal relationship with a teacher. Those students would probably benefit more from teacher intervention than Study Island.

B-How do you think the intervention teachers could motivate them?

4-We could make something, something fun. I hate to do that because I think that's where we're moving towards more and more, giving the rats another piece of cheese metaphor. It almost seems like we're giving them extrinsic motivation for things that should be intrinsic. But, I can definitely see at this age level that it is still definitely beneficial. Because some of them still haven't gotten to the point where they can manage an abstract concept like intrinsic motivation. So, any sort of celebration. And it doesn't necessarily have to be material things. You could say, hey we had 50% of the students increase one level this week. Things like I do I list the kids that have read the most every six weeks. They get mad when they're not on that list.

B-Right.

4-Any sort of individual recognition even if it's within that small group.

B-So do think within interventions where it is teacher directed and computer based? And then if you think so, what do you think the time ratio should be?

4-That is so hard to call because it is going to depend on where each student is. Some students probably need more practice which would come through the computer program. And I think some might benefit more for some direct teacher one on one. It almost has to be a constant evaluation of where each student is. If they keep going down the levels, that should be a red flag. Hey, you know something's up here and I need to step in and do something. It comes down to time.

B-We also talked about time of day that kids are getting interventions. And we talked about pulling students out of electives, but we also have the state requirements that don't allow us to pull from pe and the fine arts because of the law. How do we as a campus adjust?

4-Wow. Cause the only other option would be an extended school day which is just going to be later in the day. Or a Saturday which is going to be money. Because you have to open the building and you've gotta pay people to be here. Unless we look at moving that time within the school day and I'm not sure how that can be done because 8th period seems to be very beneficial for the students who are not in Study Island. And I mean I know that that minority need the help, need the help, but at some point in time we are dealing with budget.

B-Right.

Teacher Interviews-Teacher 5

B-We talked about in the focus group how interventions needed to be with the teacher and not necessarily so much with the computer directed, but we talked about in the cafeteria too, that we have over 300 kids that we have to service through interventions. So, how do you think we should adjust it (interventions)?

5-Ok, use your best and most expensive tool which is the teacher, which that would be the key thing.

B-Right.

5-There's a way to do that. So, umm, what I would do is, I would sit down and talk to the people, the teachers that are actually working with the kids, and show them how the tool (Study Island) can be used better.

B-Okay.

5-Because it's a new tool for a lot of them. If you'd let me I would like to spend like 20 minutes with them and on the overhead and show them.

B-Show them the cool things?

5-You can look in the part that's called sessions. After a kid has worked on it and find out how fast they are doing the questions.

B-Yeah, we have been doing that one.

5-Umm…you can also talk to them about how powerful the kids are. And show the kids on this you did 80% right and you did four questions in seven minutes. That's your power. Do it that way.

B-Right. That's a good idea.

5- Also, you can show the kids the tools that they can use. Like you can say, did you know that you can compare your scores to other kids at this school? And show them how to do that and give them the power they can compare their scores to kids at Beasley and kids at the state. It shows them a bar graph.

B-Right.

5-Ummm…the other thing I said. Success and screens. I guess it is a question to you. What is the success rate? Is it at 70% at the 6th grade level? Or is at 70% at 5th grade level?

B-We have been setting it at 70 at 6th grade.

5-Ok. Well if someone is failing. You can go on the screen and it will show the 10 questions, they got 80, and then it will show they did seven questions and they got 14. Then they did two questions and they got a zero. A teacher can actually go in and go to that session and click on it, and go to this one and click on it and delete them just like that. I can't do it right now. But, there's a way you can do it, and it's locking me out. So, the other day I looked at _____'s and he goes zero, zero, one, fourteen, 80, 69, 69 and the low rates are making it really hard for him to get out of the building blocks back up.

B-So we can go in and take it out?

5-Yeah. It actually, but I did it last year. But this year for some reason, I'm not allowed to do it. I can show you. For _____, I go _____ you are getting 80 percent, do a couple with me. That's the other thing you can do the chief thing where you have 15 kids in your room, you put ten over there and say I really don't want to hear you (while they work on Study Island). Yall just put your earphones on, I shouldn't hear a thing.

And take five of them and say let's do this together. Let's do inference together. That's the first thing I would do is show them the flip cards. Did you know you print out those flip cards and you can take them home with them?

B-Uh-huh.

5-And if you are doing the flip cards with five kids and they are successful then that's good, but if they're not you have to go, hey let's look at the lesson. And then you go from the flip cards to the lesson. And then you go through the lesson with them and say you know, you can do these. The problem is you can go through the 90 questions and make a zero. But don't do that, you can go to the lesson and see if they know the skill. That's why the lessons are there. But, I don't know if the kids know actually how powerful, so with only five of them, you could actually do that to improve the score. It's called chiefing.

B-Okay.

5-And then, like with ____ obviously when I saw, one, one, one, zero, zero, one, fourteen, and then and 80. So I ask him and he says, well I got it, let me show you, so he opens it up and he shows me the skill, he's not even reading the passage anymore.

B-Okay.

5-He is getting the right answer, by just reading the question. Does he know the skill? Obviously he knows the skill. So, and he is getting 80%. So with _____ I would just go back and delete that one, delete that one, and delete that one. But if you see this on a kid's sessions

B-Yeah, pull the zero's out.

5-Well, first get them together and the ones who are doing this, the five of them and say let's play chief. I'll be the chief or _____ is going to be the chief. _____ walk us through this. And walk them through. Like that's one on five and that's the best way to use your best and most expensive tool which is the teacher because ____ could suffer alone over there for days and days and days before he could ever get out of the building blocks. Because what he did was 6th grade work, he did ten questions, his average like 32, then he did 5th grade work where he did 20 questions and his grade was 14 and it dropped him down to 4th grade work. So he's got to get a 70th percentile at 4th grade, then go up to the 5th grade and the thing is at 5th grade he has a 14%. So, to get a 70% with a 14% he's got to get 94% to average that out to a 70 that will bring him up. Whereas I would do the chief with him, then go in and dump that, dump that, and dump that and so he would start off with nothing.

B-That's good. Because I don't think that the Study Island teachers are even thinking that way. There's working with kids when they see that they are not being successful with something and they will talk to them, but I don't think that they're doing that.

5-If you would let me work with them 20 minutes, I could come in and say, the is what I see, and this is what they'll listen to. The kids, I'll say I've been doing it for four years and some things won't work and some things I've been a terrible failure at, but just putting them on the machine and letting them go.

B-That doesn't work.

5-_____ reads on level or above level. And they can go…

B-Go and do.

5-The other thing I was going to ask you, have they ever gotten the opportunity within a skill, the skill topics, have we ever given them the opportunity to say, which topic would you like to choose instead of saying this, under the topic of literary content, there's plot, figurative language, there's three or four things under that.

B-Well, what we do typically is based on the TEKS that they've missed, that's what we choose for them to do. But, I think that it's a good idea of having them choose.

5-And if they choose it, you know they're more invested in it and then they might be successful in this, and if you're successful in this and then when they have to go back. And they're like I got a 17% on this, then they'll go wait a second, you're doing really well on this, the same procedure, let's go and do the same thing you did with that and look at the flip cards and look at the lesson. On mine when they do a new lesson I make it so you can't do the games.

B-Okay.

5-When they are at home they can do the games. I choose not to do it not during school hours when I set it up. I don't know. Since they are doing it and you don't want it to feel like school, maybe you could let them do the games.

B-Well see we let them do the games.

5-The games aren't very sophisticated.

B-No, no.

5-But it is something. Umm I had one kid listen to music while he was doing it at home and he did much better. Boys do better with music than girls.

B-Right.

5-I don't know if down the line and you say, do you guys know how you can go on line and listen to music and they know how to do it.

B-Oh yeah.

5-So they would go on line. I have never had them do it when I was on Study Island when I was in the classroom. This is something they might do. It's just an option and alternative.

B-I get it, it is just something.

5-I mean they would listen to Tupac and they would just go because they are reading it. The other thing is, you know you can do it where it will read it to them.

B-Right. Well like for our kids that need the accommodations we have that going for them the whole time. That's good. The third one I have is about motivation which was a huge theme in the group. The teachers said the kids who won't, won't (do/try) and the kids that will, will. You know, they'll participate and do regardless whether with they're with the teacher or with the computer. How do you think we should address it with the kids?

5-I would run in front of a speeding car for Mr. Fletcher who changed my life. Just one teacher changed my life. I really feel like if the teacher spends one to five, one to fifteen, one to five is twice as good. And then if you have one kid like I have ____, I said ____ come back I asked him to come back at another time and I worked with him one on one. So that's another thing. Or you could give prizes. Say the first person; they'll kill each other for a sticky hand.

B-Oh yeah. The slap jelly hands?

5-Oh yeah. We are going to use those prizes with umm accelerated reader, why not use that in those classrooms

B-That's a good idea.

5-I put it in here. I asked _____ to look through and pick out the prizes for me. (Finds catalog to show).For the English department we are going to put in an order for $130 for prizes.

B-Yeah, that's bang for your buck too.

5-You know for a plush animal purse which costs us $.79 a piece, they'll kill each other. I would do that.

B-As a source of pride.

5-You could just give it to the teacher and say give it to them whenever.

B-Right, if you see that they are being diligent. Yeah.

5-Good job.

B-Because they went up ten points.

5-And these things are amazing. Like I have uh, when they bring their reading record back if you turn in your reading record you get a sticker. For a sticker, they'll kill each other for a sticker. And they put them on their interactive notebooks and they'll put them on here.

B-Right.

5-I bought my own stickers at Michael's and they are like two bucks and there are 60 stickers I think. 30 stickers because I couldn't go there. But, umm, that's what I would use.

B-That's a good idea. So what do think about interventions being both teacher-directed and computer-based where maybe merge it or not? Because, when we were talking in the focus group some people said solely teacher, some people said Study Island was a good tool but we need the teacher. So, do you think we should have it where it's a mixture of both where are going to read a novel, plush we are going to Study Island?

5- _____ and _____ they leave on Thursday and they are doing something totally different. They are reading a novel with a teacher.

B-Right. They're with Merriman.

5-Do I know Merriman?

B-Yes she's the SPED teacher for language arts for 7th and 8th grade.

5-What does she look like?

B-She had long blonde hair. She is pulling those kids who are on the AIMSWEB who were at the very, very bottom and then those kids also failed STAAR miserably. So, she is doing reading strategies with them and calls it book club. And they are reading *Face on the Milk Carton* and they meet Tuesdays and Thursdays.

5-Those to children _____ and _____ already I can see a difference in them. Isn't that real expensive to have one teacher without the computer? I would do them both.

B-Well, what we did to make it work with her is that we have teachers cover her advisory class so that she can do the group.

5-What she's doing is making a difference, I can see it. _____ just got a 100% on a reading assignment.

B-Beautiful.

5-And _____ she is willing to do and do more.

B-So, you are seeing better results with the kids in the book group than kids who are doing the Study Island?

5- Yes, but why not do both? Could you do both?

B-Yeah, we can do both.

5-And then the teacher that is teaching them how to do Study Island can then teach them like she is doing. And I think that would make their effectiveness on Study Island even …

B-better. What we could do is where she works with the five and then the others do Study Island then they rotate. Because they are in there 45 minutes so it's possible.

5-The first day they came back I said what did you do? They said we're going to read a novel together; it's called *Face on the Milk Carton*. I said oh I know that, and they said yeah …you need to point her out to me because she's doing something.

B-Yeah, she's a great teacher. And so that's a good idea that we merge both of them instead of just doing one. And then we talked about time of day in the focus group. About when they're receiving interventions because in 8th period they get tired and can we pull them from PE, can we pull them from fine arts? But, the problem is that the state requirement and it's also a graded class. So how do we pull or fix our schedule for next year to accommodate that? Do we put advisory at the first of the day? But then we pull from our cores being in the morning.

5-I think it would be great if we could take them out of PE or band, but that's wrong. Even though we know it would help, it's wrong. Because that's saying to the PE teacher

what you are teaching is not as important as what I teach and that's a lie. I know it's a lie. Umm..Can we move 8th period? My son and daughter, I thought it was crazy when they first explained it to me. They had a moving schedule. So they didn't have 8th period at the same day any day. Like they had 8th period 1st period and then they went 1-7. The next day they had 8th period 2nd period, so they went 1, 8, 2-7. And it rotated that way. And I said wasn't that confusing? And they said no.

B-They get used to the schedule.

5-Yeah, they get used to it. I don't know if you can rotate the whole thing, but I think that if you could. There's a lot of evidence that says that kids do better. That's why high school kids go to school later right?

B-Right.

5-For late start.

B-Uh-huh.

5-Instead of asking the kids to rotate, you rotate us. Loop around the schedule. So, instead of having 8th period at the end of the day. Some days you would have it in the middle of the day.

B-Right.

5-How many times did you sit in class doing the homework that was for the next class hoping that the teacher. I mean I did it.

B-Oh yeah. Were your kids on block?

5-No, they weren't on block.

B-Huh, interesting.

5-I'm almost positive. Because they, those are my older kids, but they did live with me, they lived with their mom in Virginia when I was here. But, they would tell me that they rotated like this and they explained it to me as if just the schedule rotated.

B-Interesting.

5-I don't think they were on block either.

B-That's a good idea, huh.

5-Well work with __ to see what…-Did _____ mention to yall about moving tutorials to Tuesday and Friday as opposed to Tuesday and Thursday?

B-Well I have math groups meeting on Mondays because they are with _____ and _____.

5-See we don't know that. The big picture.

B-I have 60 kids going in 7th and 8th grade for math tutorials and those are the students who are at 4th and 5th grade math level. And then on Tuesdays and Thursdays we have Study Island group and the book groups and then on Wednesday and Fridays I've got 7th and 8th graders going. So, I wish I could say it's an accommodation for every single grade level, but I can't make it all fit because we don't have enough computer labs. So, I don't know if there is better way to do that where we say okay 6th grade you are going to go on Tuesdays and Fridays and then maybe have 7th and 8th grade book group meet on Mondays and then Thursdays are in the computer lab.

5-I'm sure you understand this is that we only see the world through our eyes. I see the kids I really see that they really need to make up this test. I think _____ goes on Thursdays and he is one that really needs to go, but I need to work with him. So it's like

not only do I need to work with him, the math teacher does, the science teacher and the history teacher does. Because everyone want more time with that boy because he's failing. We don't see the whole thing, that's all I'm saying. But you know when you asked me about doing a group the second semester; you won't need another lab because I've the computers in here.

B-Oh, that'd be great.

5-So, I would just use those computers. I mean they're not as good as the ones in the lab. When they go in the lab they can use the touch screen right?

B-Yeah. They do. A lot of them use the touch screen on the computers. Just because they don't like the keyboard and they can't type. So, they do a lot with that.

5-I've had kids who have trouble with Study Island because they couldn't log in.

B-Uh-huh.

5-They couldn't remember their log in name.

B-What we did for the first three weeks of it is that we gave them strips with their information, every single time. Then we helped them log in so that they remembered how to do it. So that wasn't an issue.

5-Are they in differently with the log in that they have with their classroom?

B-No. It's the same one.

5-So when I look at someone who is going there, I can see how they're doing in there.

B-Uh-huh. Yup. We do it where we set it by objective that they need and then set the lessons for them and enable it in game mode so that they can play the games. So, I think the big thing that you mentioned is work with the intervention teachers that are doing

Study Island to make it more effective for the kids. I think that would help with the behavior issue too. Because some of those kids, because they can't read start messing around. So, that's really good.

5-That's tough. How many are in a class? 15.

B-15. Some of them we have it down to 12. And with _____'s group, I think 13. And they have fun and they come and tell her that they want to come and go another day during the week to book club.

5-Yeah. Cool. I like how they don't call it intervention, they call it book club.

B-Yup. She calls it the book club.

5-That was smart.

B-Yes. She has been working with them on the inferencing, the comprehension, and she makes them all read and nobody is allowed not to read. That's kind of where we are out.

5-Is someone reading *The Outsiders?* I saw someone had taken those.

B-I think that might be their second book. She has three that she wants to do-a zombie book, *Face on the Milk Carton*, and *The Outsiders* was the other choice. Thanks for talking to me.

Teacher Interviews-Teacher 6

B- In our focus group we talked about that people feel that the teacher directed interventions made a stronger impact on student learning, but we need to have small groups. In your opinion how do we mitigate the large number of students needing interventions and the number of qualified intervention teachers?

6-I think that is a difficult question and that it is an ideal situation, but one that I see difficult to put into place. And that's one reason why the computer based interventions are useful because you can reach more people. I would really try to identify the students that are motivated to improve themselves because sometimes there is no point in spending all that time for somebody who isn't going to put forth any effort. So maybe see the motivation and umm contact parents to get them involved and see which of them will be supporting them in a home basis as well. And, I guess identify, I don't know if you would want to go for bubble kids or the one who are in greatest need because I have students reading very low grade levels even in inclusion class. So it would be difficult and that's one of the reasons why computer based might be necessary.

B- And we talked about in Study Island they drop the students to their appropriate levels through building blocks where it drops them back a grade level, and do you think dropping them down a level will shore up their areas of weakness where they have to make 70 to move up. Or do you think we should set the level lower like 60% and if they master it at 60 then they can be at grade level?

6-I think 60% would be fine because it can be really discouraging for them to be very behind where they feel like there is no hope. And honestly our state assessments are

designed to where they don't need to get 70%. Which I don't know what that says about how they're being designed. Do you think it would be possible with the computer groups, are there two monitors? Then could one of them pull out groups of five then talk to them?

B-We've are working on that because one teacher had the idea of playing "chief" where one kid who masters the skill teaches the other five. Then the teacher is there to support and the other kids are working on the computer.

6-Or even other students that aren't in that intervention group.

B-They could be mentors or PALS.

6-Or even NJHS. That could be community service probably.

B-Yes. Those are ideas that are coming out of it that are helpful to all of us just so we know.

6-But, you are right there are so many.

B-Right now we have 300 that we have to move through before April.

B- We talked about motivation as a recurring theme in the focus group do you feel like unmotivated students need to be with a teacher more than with a computer program? Or is there a time ratio where they should spend more time with the teacher or the computer?

6-I think as long as the teacher is there to monitor, I actually found that Study Island motivated when I had that intervention group and we did it Tuesdays and Thursdays, then Monday, Wednesday, Friday was teacher facilitated and they were definitely more excited on Tuesdays and Thursdays and it gave us the opportunity to really talk to them

individually. I think Study Island is good for motivation. With unmotivated students there is definitely going to have to be closer monitoring because they will just click through and try to play the game.

B-That led me to my next question. It was said the in the group that it was teacher directed and computer based. Which you said seems to be a better fit for most of the intervention kids? With that do you think we should limit the groups by size? Like 15 or less or 8 or less?

6-I would say per teacher 10 or less would be ideal to figure out where their thinking is going wrong. And to talk through the stories with them. This is not true in all cases, but in a lot of cases they are also challenging students and just behavior wise. I think 10 or less would be ideal.

B-Okay. And then we talked about also where the time of day where students were receiving interventions was critical and some people felt in the focus group that 8th period was not necessarily the best time to pull but we also have the state requirements of law.

6-I know we couldn't do it this year, but would it ever be possible to move advisory to 1st period. Or not necessarily first period because they really are tired by 8th period. It's pulling teeth to get them to work in study skills. It's like; oh you struggle in reading so we are going to do a bunch of reading so it is really hard for them. It would be ideal if advisory could move. I don't think pulling them out of fine arts and physical education for a long amount of time would be good. I think that's kind of a punishment.

B-That sometimes are the only classes that they look forward to.

6-Right or can pass.

Teacher Interviews-Administrator

B- In our focus group we talked about that people feel that the teacher directed interventions made a stronger impact on student learning, but we need to have small groups of at least 5 students. In your opinion how do we mitigate the large number of students needing interventions and the number of qualified intervention teachers?

A-I'm sorry what now?

B-How do we make interventions be in small groups and get through the 300 or so students that need interventions before?

A-I don't think it's possible to get that many of students in. I mean at some point you are going to have to start using morning interventions or afternoon and during school. So, the way that it is organized has to be changed or the time of day that it's given that way you have more opportunities to get students in. Or, you go through the 300 students and you pick the ones that are the highest need and shave down your scope. That's the only way.

B- In Study Island, and we talked about in Study Island they drop the students to their appropriate levels through building blocks, and do you think dropping them down a level will shore up their areas of weakness?

A-Uh, huh.

B-So if it drops them down to say 4th grade, they still have to get a 70 and then through 5th grade and they still have to get a 70. Do you think that helps them or do you think that they should just work on grade level?

A-Depends on the students. How can you go to the next level if you can't do the level below it?

B-This is true. Third question. Student motivation as a recurring theme in the focus group do you feel like unmotivated students need to be with a teacher more than with a computer program? How do you see that?

A-Yes.

B-How do we motivate these students.

A-I think you can motivate those students by using a variety of strategies when they are doing their interventions as opposed to just doing computer. Having smaller groups so that they can have attention with the teacher. I think a lot of the attitude of not being motivated is that they do not understand the content. So, if they were in a lower ratio between student and teacher, that might help. I think there are other things to do other than just computer based.

B-And should interventions incorporate both teacher directed and computer based instruction?

A-Yes.

B-And what should the ratio be ideally?

A-I think depending on the level of intervention if you have kiddos that are severely behind the less students in the classroom to one teacher is better. I would say probably five to eight students for one teacher.

B-Okay. We mentioned time of day so how do we meet the state requirements for PE, fine arts and the other courses and also group in the students in 8th period where they are not being pulled from other core classes?

A-I think there are different ways that you could do it. You could have students doing lunch group interventions where they just bring it and that's an option. Or providing transportation in the morning or after school for some of those kiddos.