ISSN: 2669-2325 (Online)

International Journal of Childhood Education • Vol. 4 • Issue 2 Open Access

Use of I-Ready in Tiered Instructions for ESL Students: A Quantitative Case Study

Olga Samsonova

Ph.D., Tavares Middle School, USA
*** Corresponding Author E-mail Address:** olgaogdanez@gmail.com

Citation: Samsonova, O. (2023). Use of I-Ready in Tiered Instructions for ESL Students: A Quantitative Case Study. *International Journal of Childhood Education, 4*(2), 85-105. https://doi.org/10.33422/ijce.v4i2.503

ABSTRACT

The objective of this study was to investigate the effects of implementing tiered instructions in conjunction with the I-Ready online program on the academic advancement of English as a second language (ESL) learners. The research utilized a quantitative case study design to examine the diagnostic test scores at the one academic year's commencement, midpoint, and conclusion. The RAT framework assisted the investigation. Data was obtained from a sample of 45 ESL third-grade students. Students in Tier 1 who needed further assistance in achieving proficiency standards were allocated to small groups during the regular lesson. In contrast, students in Tier 2 were provided with a multi-tiered system of support (MTSS) block with a different teacher, and Tier 3 students were assigned to the learning lab for the personalized I-Ready lessons. The study's findings revealed that implementing tiered instructions significantly enhanced students' academic performance. Superior outcomes were achieved in phonics, high-frequency words, and vocabulary. This research study has contributed to the advancement of ESL teaching and learning by providing a foundation for future investigations into the efficacy of the online tiered approach in aiding ESL students.

keywords: Tiered Instructions, I-Ready, English Language Learners, ESL, Multi-Tiered System of Supports, MTSS

1. Introduction

The demographic landscape of many educational institutions has changed substantially over the years, with an increasing number of students coming from linguistically diverse backgrounds (Hoover and DeBettencourt, 2018). ESL students possess a wide range of linguistic origins, which can present them with distinct obstacles as they engage with academic material while concurrently adopting a new language. The difficulties cover language, cultural, cognitive, and social elements (Rahmat, 2019). ESL students have distinct academic obstacles as they negotiate the complex attempt of acquiring a second language while concurrently struggling with subject-specific information in disciplines (Uddling, 2022). Consequently, there is an inherent necessity for pedagogical methodologies that demonstrate sensitivity towards the language origins of these students and the adaptability to accommodate their progressing degrees of skill and comprehension.

Educators sometimes encounter dual challenges arising from the inherent linguistic constraints, namely the need to facilitate the topic acquisition and foster language competency (Irsara et al., 2023; Tedick and Lyster, 2019). This transformation demands that educators employ multifaceted instructional approaches to cater to the variegated needs of their classrooms (Hoover and DeBettencourt, 2018). Besides, the use of differentiated education, namely using tiered instructions, has been a well-established pedagogical approach utilized to address the varying requirements of students (Gaitas et al., 2022). Tiered instructions have risen to the

challenge, presenting a pedagogically sound methodology that considers students' varying abilities and readiness levels. According to Magableh and Abdullah (2020), this approach entails modifying the level and kind of education following students' preparedness, preferences, or learning characteristics.

Tiered teaching, commonly implemented through frameworks like Response to Intervention (RTI), places significant emphasis on the timely identification of students' learning requirements and implementing focused interventions (Cavazos and Ortiz, 2020; Kovaleski et al., 2013; Sharma and Satsangee, 2019). This approach provides a variety of instructional intensities to address these needs effectively. Hence, the introduction of educational technology has led to the emergence of platforms such as I-Ready in the field of teaching (Martin and Lazendic, 2018; Pangrazio et al.,2022), and these platforms offer data-driven learning customized to meet each student's unique requirements (Alamri et al.,2021). The idea of I-Ready places significant emphasis on tiered training, a methodical technique designed to guarantee that each student receives a suitable degree of instructional assistance.

Among the several options available, I-Ready emerges as a prominently utilized digital platform specifically built to support both instructional and assessment processes by the unique demands of students. The digital platform I-Ready asserts its ability to address the disparity between personalized education and technology by providing diagnostic tools and customized learning routes (Jackson, 2019). The significance of these customized strategies is further emphasized when contemplating ESL. The stated adaptability of this system is said to be well-suited to the tiered education architecture since it provides varied learning resources tailored to students' real-time performance—the purpose or justification for a particular course of action or belief (Songer et al., 2020).

Although several types of research have been conducted on I-Ready, its use within tiered education modalities for ESL students has received limited attention in academic literature. The assessment of the value added by I-Ready in the context of ESL education is crucial due to the significant role that differentiated teaching plays in this field (Aguilar,2019). The primary objective of this quantitative case study is to investigate the efficacy of using the I-Ready platform inside tiered education approaches for ESL students to provide educators with empirically supported tactics and resources, thereby enabling them to effectively cultivate the academic and linguistic development of their ESL students.

2. Literature Review

The integrated learning platform known as I-Ready was created by Curriculum Associates (Pruznak, 2021). I-Ready has achieved popularity in several schools around the United States by integrating sophisticated evaluation tools with personalized education (Bingham et al., 2018; Li et al., 2018; Yang, 2023). The platform's dual methodology bridges the divide between identifying students' scholastic requirements and effectively implementing strategies to meet those demands (Reyes, 2021).

This tool can be highly beneficial for ESL learners as it aids in assessing their present level of English proficiency and areas where they may encounter difficulties. ESL students originate from diverse linguistic backgrounds, contributing unique proficiencies and the specific regions requiring assistance. I-Ready, which possesses adaptability and modifies its information according to the individual learner's requirements, might be highly advantageous for the students. According to Cook et al. (2022), the platform's adaptability enables it to dynamically tailor the material based on students' development and mastery of specific skills, ensuring a continuous provision of suitable challenges. In addition, the educational content provided by

I-Ready is intentionally designed to promote active involvement and interactivity (Yang, 2023).

The fundamental aim of the I-Ready program is to provide an enjoyable educational setting that promotes increased student enthusiasm and active participation. The platform enhances learning by combining instructional classes, engaging exercises, and interactive games (Allee-Herndon et al., 2022). Visual and auditory stimuli can be particularly beneficial for ESL learners, particularly during the first stages of language acquisition, since they aid in comprehending linguistic ideas (Rudis and Poštić, 2017).

One notable aspect of I-Ready is its capacity for diagnostic assessments (Curriculum Associates, n.d.; Hamill et al., 2019; Tirado, 2021). The diagnostic tools have been specifically built to assess students' proficiency in particular domains, such as reading and mathematics (Curriculum Associates, 2020a). The findings provide instructors with valuable information on the competency level of each student, enabling them to identify areas of strength and areas that may require more assistance (Shneyderman, 2019).

Data-driven decision-making is facilitated by I-Ready, which offers instructors immediate access to real-time data about student achievement (American Institutes for Research, 2020). The platform's diagnostic capabilities align effectively with the early detection focus of tiered models, allowing prompt intervention for students to mitigate the progression of small challenges into significant academic barriers (Curriculum Associates, 2018). Real-time data may assess progress and enhance instructional approaches, offering substantial insights (Curriculum Associates, 2017; Curriculum Associates, 2020b).

Fluid movement across tiers is observed when students experience progression or encounter obstacles, resulting in their transition between different academic levels (Pourdana and Rad, 2017). I-Ready's ongoing diagnostic and adaptive learning elements ensure that students' learning paths are adjusted in response to their changing needs, easing their transition across levels (Curriculum Associates, 2017). Progress monitoring is an essential practice for ESL students that involves the ongoing and systematic tracking of student progress, enabling educators to evaluate the development of language acquisition over a period of time (Garcia-Borrego et al., 2020; Hoover and Soltero-González, 2018; Nation and Macalister, 2020). By monitoring progress, educators can gather valuable data that informs their decision-making on appropriate interventions and instructional strategies for ESL students (Rivera and McKeithan, 2022).

By identifying and understanding the specific requirements of students, educators can customize their instructional approaches more efficiently (Brendle et al., 2017; Raza, 2020; Roberts and Guerra, 2017). I-Ready develops individualized learning paths for each student, utilizing diagnostic data for customization (Curriculum Associates, 2020b). This approach guarantees that the educational material corresponds to the student's existing skill level, effectively pushing them without causing excessive stress (Cook and Ross, 2022).

The integration of I-Ready within a tiered training framework may be elucidated as follows:

Universal screening, also known as Tier 1 screening, is a method used in academic settings to identify students who may be at risk for academic difficulties or need further support (Clemens et al., 2015; January and Klingbeil, 2020; Matthews and Rhodes, 2020; Newell et al., 2020; VanDerHeyden et al., 2017). The screening process is used at the foundation of tiered teaching lies the universal tier (Tier 1), wherein fundamental instruction is provided to all students (Braun et al., 2020). The diagnostic tools offered by I-Ready have the potential to function as comprehensive screening instruments, evaluating the absolute proficiency levels of all students across several domains, such as reading and mathematics. Group education may be enhanced

by utilizing I-Ready's tailored learning paths, as indicated by the diagnostic findings. This approach allows teachers to ensure that the core instructional content is aligned with the present proficiency levels of most students, even when teaching the entire group together (Curriculum Associates, 2020a). Educators can strategically organize students into groups according to their individualized instructional requirements, enhancing interventions' efficacy (Curriculum Associates, n.d.).

Targeted group interventions, also known as Tier 2 interventions, refer to specific strategies and programs implemented to address the needs of a select group of individuals within a larger population (Fuchs et al., 2017; Lovett et al., 2017; Ritchey et al., 2017; Wanzek et al., 2018). These interventions are designed to provide targeted support and assistance to individuals who may require identification: students who fail to exhibit satisfactory responses to Tier 1 training can be promptly detected by utilizing I-Ready's continuous monitoring system (Prescott et al., 2018; Riley-Tillman et al., 2020). I-Ready can build customized learning routes that offer focused interventions in areas where students encounter difficulties. The real-time data features of I-Ready enable educators to effectively monitor the development of students, regardless of their tier, and make well-informed educational decisions (Curriculum Associates, 2020a).

The platform can assist instructors in effectively organizing students with comparable educational requirements, facilitating focused small-group instruction (Curriculum Associates, 2020a). Intensive individual interventions, frequently referred to as Tier 3 interventions, are targeted strategies designed to address the specific needs of students who require the most support in their academic or behavioral development (Ebbels et al., 2019; Fuchs and Fuchs, 2017; Gersten et al., 2017). These interventions are implemented on an individual basis.

Within the reading component, a range of skills can be addressed, including phonological awareness, phonics, vocabulary, and comprehension. These particular domains are essential for ESS learners as they acquire language proficiency and comprehend subject matter (Fabre-Merchán et al., 2017; Jamaludin et al., 2016; Ramanair et al., 2020). Plus, ESL students may encounter difficulties when dealing with colloquial language, slang, or cultural allusions embedded within the text (Mohammed, 2018; Sivagnanam and Yunus, 2020). Although I-Ready provides adaptive information tailored to academic requirements, the intricacies of language and culture are aspects where ESL-specific resources may still be required. Integrating I-Ready with other ESL tools or resources specially created for ESL training is advantageous, as it facilitates a complete approach to language acquisition and topic mastering (Swiger and Tsai, 2023).

In addition to providing tools that prioritize student needs, I-Ready offers materials designed to support instructors in maximizing learning (American Institutes for Research, 2020). The components encompass training sessions, instructional resources, and support materials. The comprehensive provision of training sessions, instructional resources, and support materials ensures that instructors are adequately prepared and equipped to utilize I-Ready to their maximum capacity. I-Ready may be described as an educational environment rather than just a learning platform. Establishing a connection between assessment and instruction assumes a crucial function in fostering a classroom setting that acknowledges and attends to the learning needs of all students (Curriculum Associates, 2020a).

By providing accessible reports and data, I-Ready can facilitate educators in keeping parents well-informed about their child's progress and educational requirements, fostering collaboration and coordination between the home and school environments (Haynes-Grissom, 2022). With its adaptive learning capabilities, diagnostic tools, and data-driven insights, I-Ready effectively aligns with the goals of tiered training models. This tool offers instructors a robust means to accurately identify the specific requirements of students and effectively

address them at all levels, guaranteeing that each student receives the necessary help (Kavel, 2017).

2.1. Gaps in the Literature

The present analysis aims to identify deficiencies within the existing corpus of scholarly literature. Developing original research questions and providing valuable insights that may guide and shape future investigations is critical. When considering the utilization of I-Ready in tiered instruction for ESL students within a quantitative case study framework, it is crucial to recognize the presence of possible disparities. These gaps can be attributed to the vast body of educational literature and the dynamic nature of educational technology (EdTech). The following gaps are presented:

- *Particular Emphasis on ESL Learners:* While there have been studies examining the implementation of I-Ready in tiered education, there is a lack of research specifically focusing on its usage among ESL students. There is a noticeable absence of research concerning the efficacy of I-Ready concerning the diverse characteristics of ESL learners and varying age groups.
- *Lack of Comparative Analysis:* The current body of research lacks sufficient comparative studies between I-Ready and other adaptive learning platforms, specifically in tiered education for ESL students.
- *Qualitative Insights*: While the main focus of this study lies in quantitative analysis, it is vital to acknowledge the limited number of qualitative inquiries that provide a comprehensive comprehension of the experiences, perspectives, and challenges faced by ESL students and instructors when utilizing I-Ready within a tiered educational framework.
- *The Alignment of I-Ready Integration with Other ESL Resources:* To what degree does the integration of I-Ready with other resources and practices unique to ESL adhere to the principles of tiered instruction? The incorporation of many elements may have a significant impact on fostering the holistic development and progress of ESL learners.
- *Challenges in Implementation*: Despite several studies investigating the benefits and effectiveness of I-Ready, there is a noticeable absence of research concerning the obstacles educators face when incorporating the platform into a tiered educational framework tailored for ESL students.

3. The RAT Framework

The RAT (Replacement, Amplification, and Transformation) framework underpins the current research study. The RAT model is an assessment framework that explains technology's role in curriculum, teaching, and learning (Hughes, Thomas, and Scharber, 2006). The approach aims to assess whether technology is simply substituting old instruments without any functional enhancements, enhancing existing practices by introducing efficiency, or revolutionizing practices to enable new activities that were previously unimaginable. Based on the RAT, technology replaces the teacher for the instructions, increases the efficacy of some education, and renovates teaching, learning, and curricula. Educators can utilize the RAT Framework as a valuable tool for introspection and evaluation of their pedagogical approaches to incorporating technology into their instructional activities (Thomas and Edson, 2017).

Ideally, the objective would be to progress toward the augmentation and metamorphosis of educational practices to maximize technology's potential benefits in contemporary educational settings (Ntshangase, 2023). Educators are encouraged to transcend the essential act of

substituting traditional teaching methods with technology and instead strive to explore ways technology may fundamentally transform the learning process (Mishra et al., 2016). Hughes, Thomas, and Scharber (2006) underlined that computers are not for games and rewards when replacement happens in language classes; technology has got to be used to increase language lessons' productivity and involve mental work and problem-solving skills.

4. Methodology

4.1. Design

A quantitative case study that employs a structured data collection and analysis approach to explore phenomena through numerical data was used for this research. While traditional case studies are often qualitative and focus on an in-depth exploration of a specific case (or a few cases) to understand broader phenomena, a quantitative case study can bring in statistical techniques and quantitative measures to derive insights (Tellis, 1997). Quantitative case studies' statistical methods often allow for reduced researcher bias or subjectivity in the analysis process—however, the choice of what to measure and how still introduces some level of subjectivity (Yazan, 2015).

4.2. Research Questions

The objective of the study is to address the following inquiries:

Q1: *To what extent do third-grade students participating in the I-Ready reading intervention program demonstrate academic growth over one academic year?*

Q2: *What changes appear in the domain placement of third-grade students participating in the I-Ready reading intervention program over the one academic year?*

4.3. Participants and Procedure

The study took place in a charter school in Florida, USA, for one school year, 2021-2022. I - Ready generated diagnostic assessments, Beginning of the Year (BOY) (See Appendix A), Middle of the Year (MYA) (See Appendix B), and End of the Year (EOY) (See Appendix C) assessments of two third-grade English classes, a total of 45 ESL students (See Table 1), were used and analyzed in the study.

Table 1.
Research Demographic (n = 45)

Gender		Ethnic Groups				Officially ESL	New to the Country
Male	**Female**	**Hispanic**	**Black**	**American Indian**	**White**		
30	15	38	3	1	3	32	11

At the start of the academic year, a preliminary evaluation was done. Students did a first I-Ready exam in reading to establish a foundational level of performance. Typical Growth targets were set by I-Ready for individual students, considering their initial assessment results and national standards. These objectives encompassed the anticipated accomplishments that a student with a similar initial level of proficiency would be expected to attain by the conclusion of the academic year.

Students were engaged in supplementary I-Ready examinations and diagnostic assessments for the academic year to evaluate their progress, Progress Monitoring Interim Examinations.

Teachers and administrators were provided with reports comparing students' observed gain and the criteria set for typical improvement. The BOY (see Appendix A) generated a comprehensive report that typically encompasses the following components:

- *The Overall Reading Score* assessed the student's overall reading proficiency.
- *Grade Level* indicated the academic level at which the learners' demonstrated proficiency in reading skills.
- *Domain Scores* provided a detailed analysis of an individual's performance across the various categories (or domains) that had been identified.
- *Skill Detail* focused on delineating specific abilities within each area where the students had demonstrated proficiency or needed further improvement.

The MYA (See Appendix B) was used for monitoring growth based on the BOY evaluation, examining the domains in which the students had demonstrated progress and those in which further development was required. This analysis aimed to facilitate comprehension of the extent of advancements achieved across several fields. Consequently, the EOY assessment (See Appendix C) facilitated the ability to compare with previous assessments, namely the BOY and MYA, to monitor the student's academic growth during the academic year. Considering the end-of-year outcomes, the report included customized suggestions for additional teaching or interventions to assist the students.

The following measures were used in this research study:

- *Percentile ranks* provided a measure of the students' performance relative to a representative sample of scholars at the national level who are in the same Grade.
- *Grade-level placements* referred to assessing the students' academic performance in reading based on their corresponding grade level.
- The term *Typical Growth* referred to the average or median pace of advancement, considerable variation among individual pupils, and several factors that can impact a student's academic development.
- The concept of *Stretch Growth* pertained to the supplementary advancement or development that the students attained, surpassing the conventional or anticipated level of progress, and referred to a situation when the students went beyond the anticipated level of achievement, generally by a considerable margin.
- *The Skill Mastery* system was designed to monitor and assess the advancement of the students in achieving proficiency in specific skills.

Students who achieved or surpassed their Typical Growth objectives were commonly seen as demonstrating satisfactory academic advancement. To bridge the gap, students who failed to meet these goals required and received supplementary assistance, Tier 2 or Tier 3 intervention. Students who surpassed these criteria were frequently evaluated for potential enrichment options. Educators and school officials utilized this data to customize teaching methods, distribute resources, and identify students who require supplementary assistance or advanced learning opportunities.

5. Findings

5.1. Research Question 1

The data analysis outcome showed significant academic growth over the one academic year by the third-grade students participating in the I-Ready reading intervention program. Overall, students' placement doubled by the end of the school year (See Table 2). If, at the beginning

of the school year, only eight students were placed on the 3rd-grade level, by the end of the year, 16 students were performed on their current grade level. In addition, the Progress to Annual Typical Growth was 17% at the middle of the year and 94 % at the end of the year (See Table 3).

Table 2.
Overall Placement

Overall Placement	3rd Grade	2nd Grade	1st Grade	Kindergarten	Not Tested
BOY	8	10	11	11	5
MYA	8	13	8	11	5
EOY	16	9	11	9	0

Table 3.
Progress to Annual Typical Growth

Progress to Annual Typical Growth (Median)	%	Not Tested
MYA	17	5
EOY	94	0

If in the middle of the school year, 20 students showed less than 19 % of Typical Growth and only nine students showed 100% of Typical Growth, at the end of the year, 11 students showed less than 19 % of Typical Growth and 22 students showed 100% of Typical Growth (See Figures 1 and 2). Also, in the middle of the school year, 22 students showed less than 19 % of Stretch Growth, and 0 students showed 100% of Stretch Growth; at the end of the year, 12 students showed less than 19 % of Stretch Growth, and 12 students showed 100% of Stretch Growth (See Figures 1 and 2).

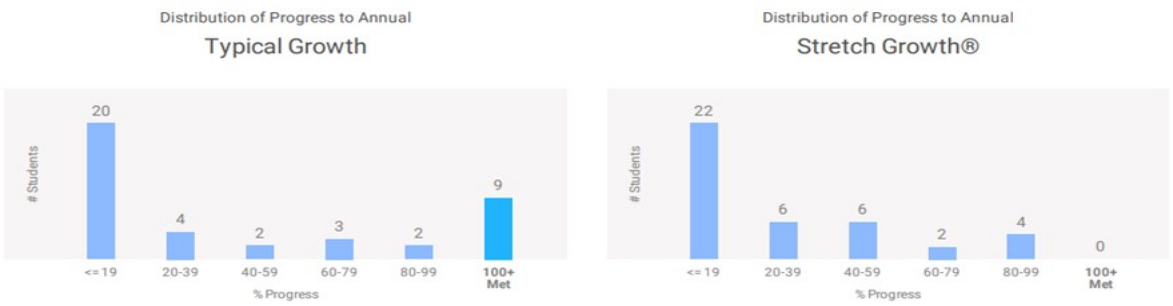


Figure 1. MYA Progress Distributions

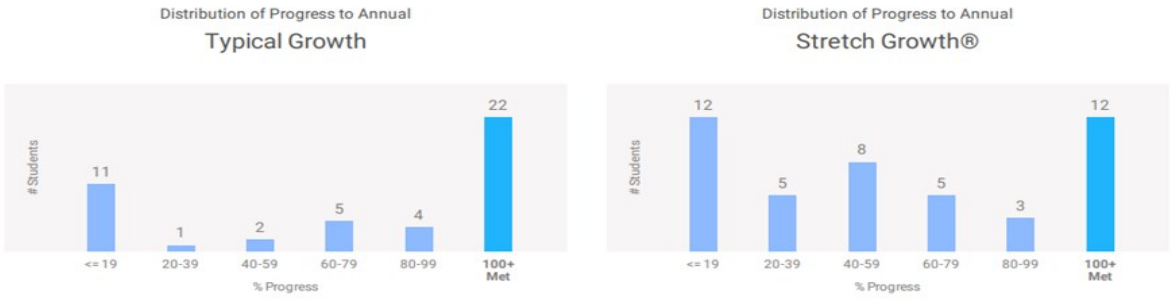


Figure 2. EOY Progress Distributions

5.2. Research Question 2

The results of the data analysis indicated that there were significant changes in domain placement, Phonics (PH), High-Frequency Words (HFW), Vocabulary (VOC), and

Comprehension: Literature (LIT) and Comprehension: Informational Text (INFO), of third-grade students participating in the I-Ready reading intervention program over one academic year (See Figures 3, 4, and 5). However, there were no changes in the Phonological Awareness (PA) domain as all students were tested out at the beginning of the 3rd Grade, excluding those who did not complete the BOY. In the PH domain, 38 % of students were on grade or above grade level at the end of the year, compared to 18 % at the beginning of the school year. In the HFW, 78% of the students mastered these skills, compared to 56 % at the beginning of the school year. In the VOC domain, there is a 9% growth; in the LIT, there is a 15% growth; and in the INFO, there is a 14% growth of the students who scored on or above grade level (See Table 4).

Figure 3. BOY I- Ready Diagnostic Assessment Results

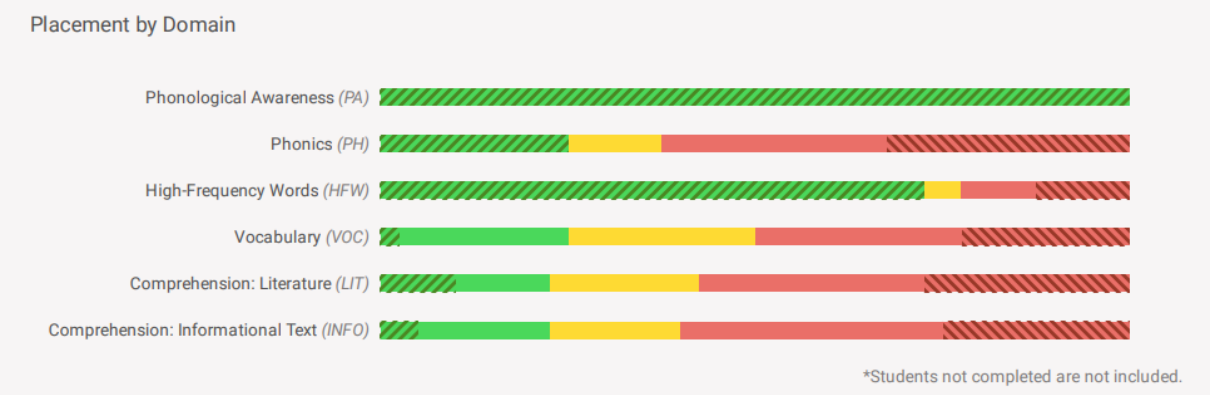


Figure 4. MYA I- Ready Diagnostic Assessment Results

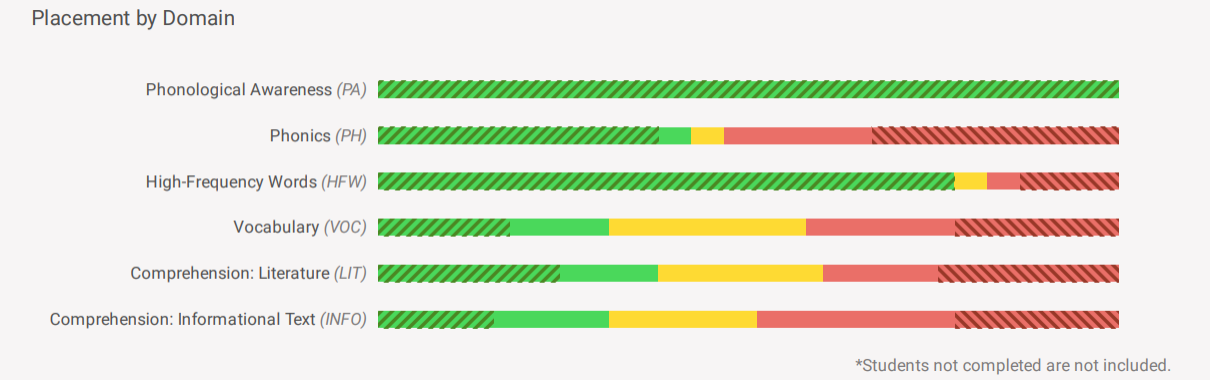


Figure 5. EOY I-Ready Diagnostic Assessment Results

The statistics of the students who scored early on grade level did not change significantly throughout the year: 0% in the PA and the HFW domains in BOY, MYA, and EOY; however,

there was a 5 % growth in the PH domain by the end of the year. There was a 7 % growth in the VOC in MYA, but by the end of the year, the percentage was the same as in BOY-13%. In the INFO domain, there was a 3 % growth by the end of the year. Nevertheless, in the LIT domain, the percentage decreased from 16% to 13 % in BOY (See Table 4).

The same dynamic is seen in the data of the students who scored one, two, or three or more grade levels below. One grade level below (Second Grade): 0% in the PA domain in BOY, MYA, and EOY; there was a 2 % growth in the PH and the HFW domains in the middle of the year, but the percentage of the students in the PH domain showed a 7% decrease by the end of the year while the HFW growth stated the same. There was a 2 % growth in the VOC in MYA and a 5 % in BOY. In the INFO domain, there was a 4 % growth by the end of the year, and in the LIT domain, 13% (BOY), 18% (MYA), and 22% (EOY), accordingly (See Table 4).

Two grade levels below (First Grade): 0% in the PA domain in BOY, MYA, and EOY; there was a 3 % growth in the PH and a 5 % growth in the HFW domains in the middle of the year, but the percentage of the students in the PH domain showed a 7% decrease and in the HFW domain showed a 5% decrease by the end of the year. There was an 11 % decrease in the VOC and a 14 % decrease in the INFO domain by the end of the year. In addition, there was a 6 % decrease in the LIT domain, 22% (BOY), 27% (MYA), and 16% (EOY), accordingly (See Table 4).

Three or more grade levels below (Kindergarten and below): 0% in the PA domain in BOY, MYA, and EOY; there was a 9 % decrease in the PH and a 16 % decrease in the HFW domains in the middle of the year, but the percentage of the students in the PH domain showed a 4% growth and in the HFW domain showed a 3% growth by the end of the year. In the VOC, there was constant growth throughout the year: 16% (BOY), 20% (MYA), and 22% (EOY) as well as in the INFO domain: 18% (BOY), 22% (MYA), and 22% (EOY). There was a 5 % decrease in MYA in the LIT domain, but by the end of the year, the students showed a 1% growth. It is essential that five students (11%) were not tested at the beginning and the middle of the school year (See Table 4).

Table 4.
Overall Placement by Domain

Overall Placement	**BOY**						**MYA**						**EOY**					
	PA	**PH**	**HFW**	**VOC**	**LIT**	**INFO**	**PA**	**PH**	**HFW**	**VOC**	**LIT**	**INFO**	**PA**	**PH**	**HFW**	**VOC**	**LIT**	**INFO**
Mid or Above Grade Level	100 %	18%	56%	9%	9%	2%	100%	22%	64%	2%	9%	4%	100%	38%	78%	18%	24%	16%
Early on Grade Level	0 %	0%	0%	13%	16%	13%	0%	0%	0%	20%	11%	16%	0%	5%	0%	13%	13%	16%
One Grade Level Below	0%	9%	2%	20%	13%	16%	0%	11%	4%	22%	18%	16%	0%	4%	4%	27%	22%	20%
Two Grades Level Below	0%	24%	4%	31%	22%	40%	0%	27%	9%	25%	27%	31%	0%	20%	4%	20%	16%	26%
Three or More Grades Levels Below	0%	38%	27%	16%	29%	18%	0%	29%	11%	20%	24%	22%	0%	33%	14%	22%	25%	22%
Not Completed	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	0%	0%	0%	0%	0%	0%

6. Discussion

The use of I-Ready's diagnostic tools among ESL students resulted in a noticeable improvement in their capacity to recognize areas of linguistic strengths and weaknesses, surpassing the efficacy of traditional evaluation methods (Brown and Cardoza, 2022; Cook and Ross, 2022; Tirado and Shneyderman, 2020). Likewise, this research has indicated that integrating I-Ready within a tiered instructional framework has been associated with enhanced competence levels among ESL students, leading to quicker progress. The data suggests that ESL students saw significant advancements across different levels when provided with help from the I-Ready platform. This implies that the platform is effective in delivering the required interventions.

The utilization of I-Ready provided benefits in reducing the administrative burden related to continuous evaluation and streamlining the process of categorizing students into targeted intervention cohorts. Similar findings were obtained in Cook and Ross's 2022 study that compared the increase in ESL accomplishment. The participants were divided into two groups: one utilized I-Ready Personalized Instruction with fidelity in their ESL classes. In contrast, the other group used the I-Ready Diagnostic Assessment suite but did not have access to Personalized Instruction. The study's findings indicated that students in Grades 4 and 8 who utilized I-Ready Personalized Instruction with a high level of adherence had notably more significant increases in ESL proficiency than their counterparts who did not engage in Personalized Instruction.

Furthermore, there was a notable increase in ESL accomplishment among Grades 5 and 7 children who utilized I-Ready Personalized Instruction compared to their peers in the control group. While I-Ready has demonstrated benefits, its effectiveness was enhanced when integrated with other ESL-specific resources within a tiered educational framework. While acknowledging the potential limitations of the study's duration, preliminary findings suggest that using I-Ready in a tiered education approach has promised long-lasting benefits in the academic advancement of ESL students.

7. Study Limitations

Similar to any academic investigation, this research would inevitably encounter some constraints. This case study concentrates on only two classes, so the sample size could be insufficient to extrapolate the findings to a broader population of ESL learners. In addition, the data collection process employed in this study may overlook qualitative aspects such as student involvement, cultural influences, and individual learning styles due to its primary focus on quantitative measures. It is important to note that there may be variations in the level of preparedness and training among instructors when properly integrating I-Ready into a tiered education paradigm. The fidelity of implementing instructional methods such as I-Ready or tiered teaching by teachers can impact the outcomes of studies. Lastly, the absence of a control group that undergoes tiered teaching without using I-Ready poses challenges in isolating the specific influence of I-Ready on student results.

8. Implications for Practice

The research on utilizing I-Ready in implementing tiered instructional approaches for students has yielded valuable insights. ESL students, due to their different cultural origins and varying levels of linguistic proficiency, pose a distinctive challenge within the educational system. Implementing tiered education, particularly within the MTSS framework, has demonstrated promise in effectively catering to the diverse requirements of various student populations (Choi

et al., 2019; Fien et al., 2021; Hoover et al., 2020; Leonard et al., 2019; Martin, 2021). Integrating digital platforms such as I-Ready may give instructors flexibility, tailored pace, and actionable insights. This quantitative case study extensively examines the integration of I-Ready as a tool within tiered educational techniques for ESL students. The results emphasize the effectiveness and practicality of incorporating technology-driven solutions within a well-organized framework, such as the tiered instructional model, to address ESL learners' varied requirements.

The study highlighted the need to use differentiated instruction strategies for ESL students. This emphasizes the necessity of providing materials that may be customized to accommodate the unique development and learning preferences of each student. I-Ready presents a viable solution to tackle the distinctive obstacles these learners encounter, offering them suitable information that corresponds to their advancing abilities through its adaptive learning pathways. Furthermore, within the framework of RTI or MTSS, where the regular monitoring of development is of utmost importance (Coyne et al., 2018; Sailor et al., 2021), I-Ready provides valuable insights based on data analysis essential for making well-informed instructional choices. Evidence-based methods can be crucial in promoting equal access to excellent education for ESL students, who face language and cultural challenges that leave them vulnerable academically.

Nevertheless, although the apparent advantages of incorporating I-Ready into tiered teaching for ESL students are clear, educators and educational institutions must prioritize ongoing training and support. Educators may effectively utilize the platform's possibilities in ESL instruction only when they possess a comprehensive awareness of its intricacies, therefore aligning with the distinctive dynamics of this particular educational context.

9. Conclusions

This research study found that integrating I-Ready in tiered instruction for ESL students offers promising prospects. It bridges the gap between traditional teaching methodologies and the dynamic needs of ESL learners, making education more accessible, personalized, and effective. However, it is crucial to address the noted challenges and continuously adapt the platform to the ever-evolving needs of ESL education. With the right strategies and improvements, I-Ready can revolutionize how we approach ESL instruction in a tiered framework.

References

Aguilar, R. E. (2019). *Predictive validity of I-Ready diagnostic scores for high-stakes test outcomes with middle school students: A program evaluation*. State University of New York at Albany.

Alamri, H. A., Watson, S., & Watson, W. (2021). Learning technology models that support personalization within blended learning environments in higher education. *TechTrends*, *65*, 62-78. https://doi.org/10.1007/s11528-020-00530-3

Allee-Herndon, K. A., Roberts, S. K., Hu, B., Clark, M. H., & Stewart, M. L. (2022). Let's talk play! Exploring the possible benefits of play-based pedagogy on language and literacy learning in two Title I kindergarten classrooms. *Early Childhood Education Journal*, 50(1), 119–132. https://doi.org/10.1007/s10643-020-01141-6

American Institutes for Research (2020). I-Ready® Diagnostic reading. https://charts.intensiveintervention.org/screening/tool/?id=7534542c4f422f85

Bingham, A. J., Pane, J. F., Steiner, E. D., & Hamilton, L. S. (2018). Ahead of the curve: Implementation challenges in personalized learning school models. *Educational Policy*, *32*(3), 454-489. https://doi.org/10.1177/0895904816637688

Braun, G., Kumm, S., Brown, C., Walte, S., Hughes, M. T., & Maggin, D. M. (2020). Living in Tier 2: Educators' perceptions of MTSS in urban schools. *International Journal of Inclusive Education*, *24*(10), 1114-1128. https://doi.org/10.1080/13603116.2018.1511758

Brendle, J., Lock, R., & Piazza, K. (2017). A study of co-teaching identifying effective implementation strategies. *International Journal of Special Education*, *32*(3), 538-550.

Brown, K., & Cardoza, J. (2022). Language matters to newcomer ELLs: Positive results via a simple, modified dual language approach to mathematics instruction. *Journal of Teacher Action Research*, *8*(2).

Cavazos, L. O., & Ortiz, A. A. (2020). Incorporating oral language assessment into MTSS/RTI frameworks: The potential of personal narrative assessment. *Bilingual Research Journal*, *43*(3), 323-344.

Choi, J. H., McCart, A. B., Hicks, T. A., & Sailor, W. (2019). An analysis of mediating effects of school leadership on MTSS implementation. *The Journal of Special Education*, *53*(1), 15-27. https://doi.org/10.1177/0022466918804815

Clemens, N. H., Hagan-Burke, S., Luo, W., Cerda, C., Blakely, A. Frosch, J., & Jones, M. (2015). The predictive validity of a computer-adaptive assessment of kindergarten and first-grade reading skills, *School Psychology Review*, 44(1), 76-97. https://doi.org/10.17105/SPR44-1.76-97

Cook, M., & Ross, S. M. (2022). The impact of I-ready personalized instruction with fidelity on 2021 MCAS ELA achievement. Final Report. *Center for Research and Reform in Education*.

Cook, M., Grant, A., & Ross, S. (2022). *The impacts of I-ready personalized instruction on student math achievement in multiple school districts*. Center for Research and Reform in Education.

Coyne, M. D., Oldham, A., Dougherty, S. M., Leonard, K., Koriakin, T., Gage, N. A., & Gillis, M. (2018). Evaluating the effects of supplemental reading intervention within an MTSS or RTI reading reform initiative using a regression discontinuity design. *Exceptional Children*, *84*(4), 350-367. https://doi.org/10.1177/0014402918772791

Curriculum Associates (2017). The science behind I-Ready's adaptive diagnostic. https://www.casamples.com/downloads/i-Ready_DiagnosticPositionPaper_090914.pdf

Curriculum Associates (2018). I-ready scale score placement tables (2018–2019 School Year). https://www.esboces.org/cms/lib/NY01914091/Centricity/Domain/533/iready-placement-tables-2018-2019.pdf

Curriculum Associates. (2020a). *Implementing a multi-tiered system of supports with i-ready.* Curriculum Associates, LLC.

Curriculum Associates. (2020b). *Understanding I-Ready's adaptive assessment*. Curriculum Associates, LLC.

Curriculum Associates. (n.d.). Adaptive assessment pinpoints needs. https://www.curriculumassociates.com/products/i-ready/assessment/diagnostic

Ebbels, S. H., McCartney, E., Slonims, V., Dockrell, J. E., & Norbury, C. F. (2019). Evidence-based pathways to intervention for children with language disorders. *International journal*

of language and communication disorders, *54*(1), 3-19. https://doi.org/10.1177/0014402918772791

Fabre-Merchán, P., Torres-Jara, G., Andrade-Dominguez, F., Ortiz-Zurita, M. J., & Alvarez-Muñoz, P. (2017). A phenomenological study: The impacts of developing phonetic awareness through technological resources on English language learners (ELL) communicative competencies. *English Language Teaching*, *10*(12), 83-87. https://doi.org/10.5539/elt.v10n12p83

Fien, H., Nelson, N. J., Smolkowski, K., Kosty, D., Pilger, M., Baker, S. K., & Smith, J. L. M. (2021). A conceptual replication study of the Enhanced Core Reading Instruction MTSS-reading model. *Exceptional Children*, *87*(3), 265-288. https://doi.org/10.1177/0014402920953763

Fuchs, D., & Fuchs, L. S. (2017). Critique of the national evaluation of response to intervention: A case for simpler frameworks. *Exceptional Children*, *83*(3), 255-268. https://doi.org/10.1177/0014402917693580

Fuchs, L. S., Fuchs, D., & Malone, A. S. (2017). The taxonomy of intervention intensity. *Teaching Exceptional Children*, *50*(1), 35-43. https://doi.org/10.1177/0040059917703962

Gaitas, S., Carêto, C., Peixoto, F., & Castro Silva, J. (2022). Differentiated instruction: 'To be, or not to be, that is the question.' *International Journal of Inclusive Education*, 1-17. https://doi.org/10.1080/13603116.2022.2119290

Garcia-Borrego, R., Maxwell, G. M., & McNair, C. L. (2020). South Texas urban administrator perceptions of best practices for ELL literacy. *Journal of Instructional Pedagogies*, *23*.

Gersten, R., Newman-Gonchar, R., Haymond, K. S., & Dimino, J. (2017). What is the evidence base to support reading interventions for improving student outcomes in grades 1-3? REL 2017-271. *Regional Educational Laboratory Southeast*.

Hamill, C., Wolf, M. K., Wang, Y., & Banerjee, H. L. (2019). A review of digital products for formative assessment uses: Considering the English learner perspective. *Research Memorandum No. RM-19-04. Princeton: Educational Testing Service. [Google Scholar]*.

Haynes-Grissom, S. M. (2022). *Teacher Selfies and Parent Portraits: The Relationship Between Teacher Communication and School-Family Partnerships in Low Socio-Economic Schools* (Doctoral dissertation, University of Oregon).

Hoover, J. J., & DeBettencourt, L. U. (2018). Educating culturally and linguistically diverse exceptional learners: The need for continued advocacy. *Exceptionality*, *26*(3), 176-189. https://doi.org/10.1080/09362835.2017.1299530

Hoover, J. J., & Soltero-González, L. (2018). Educator preparation for developing culturally and linguistically responsive MTSS in rural community elementary schools. *Teacher Education and Special Education*, *41*(3), 188-202. https://doi.org/10.1177/0888406417753689

Hoover, J. J., Soltero-González, L., Wang, C., & Herron, S. (2020). Sustaining a multi-tiered system of supports for English learners in rural community elementary schools. *Rural Special Education Quarterly*, *39*(1), 4-16. https://doi.org/10.1177/8756870519847466

Hughes, J., Thomas, R. & Scharber, C. (2006). Assessing Technology Integration: The RAT – Replacement, Amplification, and Transformation - Framework. In C. Crawford, R. Carlsen, K. McFerrin, J. Price, R. Weber and D. Willis (Eds.), *Proceedings of SITE 2006--Society for Information Technology and Teacher Education International Conference* (pp. 1616-

1620). Orlando, Florida, USA: Association for the Advancement of Computing in Education (AACE). Retrieved September 8, 2022, from https://www.learntechlib.org/p/22293

Irsara, M., Lazzeretti, C., & Gatti, M. C. (2023). Challenges and opportunities of globalized english language education: A case study of Trentino-South Tyrol. *Iperstoria-Journal of American and English Studies*, *21*, 49-66.

Jackson, D. A. (2019). *Interim Assessments as a Predictive Tool and Driver of Formative Assessment Practices to Improve Student Performance on State Assessments*. East Carolina University.

Jamaludin, K. A., Alias, N., Mohd Khir, R. J., DeWitt, D., & Kenayathula, H. B. (2016). The effectiveness of synthetic phonics in the development of early reading skills among struggling young ESL readers. *School Effectiveness and School Improvement*, *27*(3), 455-470. https://doi.org/10.1080/09243453.2015.1069749

January, S. A. A., & Klingbeil, D. A. (2020). Universal screening in grades K-2: A systematic review and meta-analysis of early reading curriculum-based measures. *Journal of School Psychology*, *82*, 103-122. https://doi.org/10.1080/09243453.2015.1069749

Kavel, R. L. (2017). *The impact of teachers' knowledge and professional development experiences on the culturally responsive teaching practices they implement in literacy* (Doctoral dissertation, The University of North Carolina at Charlotte).

Kovaleski, J. F., VanDerHeyden, A. M., & Shapiro, E. S. (2013). The RTI approach to evaluating learning disabilities. New York, NY: Guilford Press

Leonard, K. M., Coyne, M. D., Oldham, A. C., Burns, D., & Gillis, M. B. (2019). Implementing MTSS in beginning reading: tools and systems to support schools and teachers. *Learning Disabilities Research and Practice*, *34*(2), 110-117. https://doi.org/10.1111/ldrp.12192

Li, H., Cui, W., Xu, Z., Zhu, Z., & Feng, M. (2018). Yixue adaptive learning system and its promise of improving student learning. In *CSEDU (2)* (pp. 45-52). https://doi.org/10.5220/0006689800450052

Lovett, M. W., Frijters, J. C., Wolf, M., Steinbach, K. A., Sevcik, R. A., & Morris, R. D. (2017). Early intervention for children at risk for reading disabilities: The impact of Grade at intervention and individual differences on intervention outcomes. *Journal of Educational Psychology*, *109*(7), 889. https://doi.org/10.1037/edu0000181

Magableh, I. S. I., & Abdullah, A. (2020). Effectiveness of differentiated instruction on primary school students' English reading comprehension achievement. *International Journal of Learning, Teaching and Educational Research*, *19*(3), 20-35. https://doi.org/10.26803/ijlter.19.3.2

Martin, A. J., &Lazendic, G. (2018). Computer-adaptive testing: Implications for students' achievement, motivation, engagement, and subjective test experience. Journal of Educational Psychology, 110(1), 27-45. https://doi.org/10.1037/edu0000205

Martin, R. (2021). Examining the effects of implementation of I-ready to fidelity on reading and its effects on free or reduced lunch students in seven middle schools. *Electronic Theses and Dissertations, 2020-*. 730. https://stars.library.ucf.edu/etd2020/730

Matthews, M. S., & Rhodes, H. A. (2020). Examining identification practices and services for young advanced and gifted learners in selected North Carolina school districts. *Journal of Advanced Academics*, *31*(4), 411-435. https://doi.org/10.1177/1932202X20908878

Mishra, P., Henriksen, D., Boltz, L. O., & Richardson, C. (2016). E-leadership and teacher development using ICT. *ICT in Education in Global Context: Comparative reports of innovations in K-12 education*, 249-266. https://doi.org/10.1007/978-3-662-47956-8_13

Mohammed, M. H. (2018). Challenges of learning English as a Foreign Language (EFL) by non-native learners. *International Journal of Social Science and Economic Research*, *3*(4), 1381-1400.

Nation, I. S., & Macalister, J. (2020). *Teaching ESL/EFL reading and writing*. Routledge. https://doi.org/10.4324/9781003002765

Newell, K. W., Codding, R. S., & Fortune, T. W. (2020). Oral reading fluency as a screening tool with English learners: A systematic review. *Psychology in the Schools*, *57*(8), 1208-1239. https://doi.org/10.1002/pits.22406

Ntshangase, S. Z. (2023). Understanding the replacement, amplification, and transformation model in digitalisation of Kwazulu-Natal and Gauteng Isizulu classrooms in independent schools. *Journal of Educational Studies*, *22*(1), 85-101.

Pangrazio, L., Stornaiuolo, A., Nichols, T. P., Garcia, A., & Philip, T. M. (2022). Datafication meets platformization: Materializing data processes in teaching and learning. *Harvard Educational Review*, *92*(2), 257-283. https://doi.org/10.17763/1943-5045-92.2.257

Pourdana, N., & Rad, M. S. (2017). Differentiated instructions: Implementing tiered listening tasks in mixed-ability EFL context. *Journal of Modern Research in English Language Studies*, *4*(1), 87-69.

Prescott, J. E., Bundschuh, K., Kazakoff, E. R., &Macaruso, P. (2018). Elementary school–wide implementation of a blended learning program for reading intervention. *The Journal of Educational Research*, *111*(4), 497-506. https://doi.org/10.1080/00220671.2017.1302914

Pruznak, C. (2021). *The effectiveness of I-Ready instruction on student growth* (Doctoral dissertation, Indiana University of Pennsylvania).

Rahmat, N. H. (2019). Cycle of fear in learning: The case for three language skills. *American Journal of Social Sciences and Humanities*, *4*(1), 151-162. https://doi.org/10.20448/801.41.151.162

Ramanair, J., Wee, C. S., Rethinasamy, S., Misieng, J., & Pandian, A. (2020). Phonemic awareness among rural primary school English language teachers in Sarawak. *International Journal of Asian Social Science*, *10*(8), 434-449. https://doi.org/10.18488/journal.1.2020.108.434.449

Raza, K. (2020). Differentiated instruction in English language teaching: Insights into the implementation of Raza's teaching adaptation model in Canadian ESL classrooms. *TESL Ontario Contact Magazine*, *46*(2), 41-50.

Reyes Ed D, B. (2021). Dual language effectiveness to narrow achievement gaps: A Quantitative correlational study. *Journal of English Learner Education*, *12*(1), 1.

Riley-Tillman, T. C., Burns, M. K., & Kilgus, S. P. (2020). *Evaluating educational interventions: Single-case design for measuring response to intervention*. Guilford Publications.

Ritchey, K. D., Palombo, K., Silverman, R. D., & Speece, D. L. (2017). Effects of an informational text reading comprehension intervention for fifth-grade students. *Learning Disability Quarterly*, *40*(2), 68-80. https://doi.org/10.1177/0731948716682689

Rivera, M. O., & McKeithan, G. K. (2022). Progress monitoring of language acquisition and academic content for English learners. *Learning Disabilities Research and Practice*, *37*(3), 216-225. https://doi.org/10.1111/ldrp.12290

Roberts, M. B., & Guerra, F. (2017). Principals' perceptions of their knowledge in special education. *Current Issues in Education*.

Rudis, D., & Poštić, S. (2017). Influence of video games on the acquisition of the English language. *Verbum*, *8*, 112-128. https://doi.org/10.15388/Verb.2017.8.11354

Sailor, W., Skrtic, T. M., Cohn, M., & Olmstead, C. (2021). Preparing teacher educators for statewide scale-up of a multi-tiered system of support (MTSS). *Teacher Education and Special Education*, *44*(1), 24-41. https://doi.org/10.1177/0888406420938035

Sharma, P., & Satsangee, N. (2019). Developing an educational instructional plan based on response to intervention (RTI) for students with limited English proficiency. International Journal of Research in Humanities, Arts, and Literature, Vol.7, No. 1, 225-234.

Shneyderman, A. (2019). Exploring the 2018-2019 I-Ready Predictive Capability. Research Brief. Volume 1901. *Research Services, Miami-Dade County Public Schools*.

Sivagnanam, S., & Yunus, M. M. (2020). Utilizing social media in vocabulary enhancement among primary ESL learners. *Universal Journal of Educational Research*, *8*(2), 490-498. https://doi.org/10.13189/ujer.2020.080220

Songer, N. B., Newstadt, M. R., Lucchesi, K., & Ram, P. (2020). Navigated learning: An approach for differentiated classroom instruction built on learning science and data science foundations. *Human Behavior and Emerging Technologies*, *2*(1), 93-105. https://doi.org/10.1002/hbe2.169

Swiger, S., & Tsai, I. C. (2023, March). Technology use and integration by six sheltered-instruction trained teachers. In *Society for Information Technology and Teacher Education International Conference* (pp. 2500-2505). Association for the Advancement of Computing in Education (AACE).

Tedick, D. J., & Lyster, R. (2019). *Scaffolding language development in immersion and dual language classrooms*. Routledge. https://doi.org/10.4324/9780429428319

Tellis, W. (1997). Introduction to a case study. *The qualitative report*, *3*(2), 1-14. https://doi.org/10.4324/9780429428319

Thomas, A., & Edson, A. J. (2017, March). A framework for mathematics teachers' evaluation of digital instructional materials: Integrating mathematics teaching practices with technology use in K-8 classrooms. In *Society for information technology and teacher education international conference* (pp. 11-18). Association for the Advancement of Computing in Education (AACE).

Tirado, A. (2021). Review of literature: COVID-19 learning loss and strategies for recovery. information capsule. Volume 2003. *Research Services, Miami-Dade County Public Schools*.

Tirado, A., & Shneyderman, A. (2020). Student achievement growth in early elementary grades and the persistence of the achievement gap. Research Brief. Volume 1909. *Research Services, Miami-Dade County Public Schools*.

Uddling, J. (2022). To integrate a language focus in a linguistically diverse physics classroom. *Language and Education*, *36*(3), 259-278. https://doi.org/10.1080/09500782.2021.1933018

VanDerHeyden, A. M., Codding, R. S., & Martin, R. (2017). Relative value of common screening measures in mathematics. *School Psychology Review*, *46*(1), 65-87. https://doi.org/10.1080/02796015.2017.12087608

Wanzek, J., Stevens, E. A., Williams, K. J., Scammacca, N., Vaughn, S., & Sargent, K. (2018). Current evidence on the effects of intensive early reading interventions. *Journal of learning disabilities*, *51*(6), 612-624. https://doi.org/10.1177/0022219418775110

Yang, H. (2023). The application of game-based phonics learning apps in lower elementary teaching. *Journal of Education, Humanities and Social Sciences*, *8*, 1939-1946. https://doi.org/10.54097/ehss.v8i.4618

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *The qualitative report*, *20*(2), 134-152. https://doi.org/10.54097/ehss.v8i.4618

Young, C., Mohr, K. A., & Rasinski, T. (2014). Reading together: A successful reading fluency intervention. Literacy Research and Instruction, 54(1), 67-81. https://doi.org/10.1080/19388071.2014.976678

Appendices

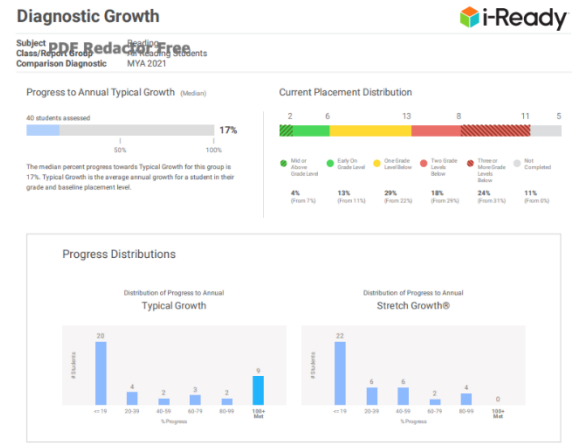
Appendix A

BOY I- Ready Diagnostic Assessment Results

Student	Scale Score	Overall Placement	Placement by Domain						Annual Growth Measures		Date
			PA	PH	HFW	VOC	LIT	INFO	Typical Growth	Stretch Growth®	
[redacted]	564	Late 3	Tested Out	Tested Out	Tested Out	Grade 4	Mid 3	Early 3	17	21	09/09/21
[redacted]	564	Late 3	Tested Out	Tested Out	Tested Out	Late 3	Mid 3	Late 3	17	21	09/03/21
[redacted]	562	Late 3	Tested Out	Tested Out	Tested Out	Late 3	Late 3	Early 3	17	21	09/02/21
[redacted]	535	Early 3	Tested Out	Tested Out	Tested Out	Mid 3	Early 3	Early 3	22	39	09/08/21
[redacted]	421	Grade 1	Tested Out	Grade K	Grade K	Grade 1	Grade 1	Grade 1	33	63	09/02/21
[redacted]	421	Grade 1	Tested Out	Grade K	Grade K	Grade 1	Grade 1	Grade 1	33	63	09/02/21
[redacted]	414	Grade K	Tested Out	Grade K	Grade K	Grade 1	Grade K	Grade 1	36	79	09/02/21
[redacted]	409	Grade K	Tested Out	Grade K	Grade K	Grade 1	Grade K	Grade 1	36	79	09/03/21
[redacted]	403	Grade K	Tested Out	Grade K	Grade K	Grade 1	Grade K	Grade 1	36	79	09/08/21
[redacted]	402	Grade K	Tested Out	Grade K	Grade K	Grade 1	Grade 1	Grade 1	36	79	09/02/21
[redacted]	400	Grade K	Tested Out	Grade K	Grade K	Grade K	Grade K	Grade K	36	79	09/02/21
[redacted]	391	Grade K	Tested Out	Grade K	Grade K	Grade K	Grade K	Grade K	36	79	09/02/21
[redacted]	380	Grade K	Tested Out	Grade K	Grade K	Grade K	Grade K	Grade K	36	79	09/02/21
[redacted]	376	Grade K	Tested Out	Grade K	Grade 1	Grade K	Grade K	Grade K	36	79	09/03/21
[redacted]	347	Grade K	Tested Out	Grade K	Grade K	Grade K	Grade K	Grade K	36	79	09/02/21
[redacted]	532	Early 3	Tested Out	Tested Out	Tested Out	Early 3	Early 3	Early 3	22	39	09/02/21
[redacted]	517	Early 3	Tested Out	Tested Out	Tested Out	Grade 2	Mid 3	Grade 2	22	39	09/07/21
[redacted]	514	Early 3	Tested Out	Tested Out	Tested Out	Grade 2	Early 3	Early 3	22	39	09/08/21
[redacted]	512	Early 3	Tested Out	Tested Out	Tested Out	Early 3	Early 3	Grade 2	22	39	09/07/21
[redacted]	508	Grade 2	Tested Out	Grade 2	Tested Out	Early 3	Grade 2	Grade 2	26	40	09/15/21
[redacted]	503	Grade 2	Tested Out	Grade 2	Tested Out	Grade 2	Grade 2	Early 3	26	40	09/03/21
[redacted]	502	Grade 2	Tested Out	Grade 2	Tested Out	Grade 2	Early 3	Grade 1	26	40	09/02/21
[redacted]	500	Grade 2	Tested Out	Grade 1	Tested Out	Early 3	Early 3	Grade 1	26	40	09/14/21
[redacted]	497	Grade 2	Tested Out	Grade 1	Tested Out	Grade 2	Early 3	Grade 2	26	40	09/03/21
[redacted]	490	Grade 2	Tested Out	Grade 1	Tested Out	Early 3	Grade 2	Grade 1	26	40	09/03/21
[redacted]	403	Grade 2	Tested Out	Grade 2	Tested Out	Grade 2	Grade 2	Grade 2	26	40	09/03/21
[redacted]	478	Grade 2	Tested Out	Grade 1	Tested Out	Grade 2	Grade 1	Grade 2	26	40	09/03/21
[redacted]	477	Grade 2	Tested Out	Grade 1	Tested Out	Early 3	Grade 1	Grade 1	26	40	09/10/21
[redacted]	474	Grade 2	Tested Out	Grade 1	Tested Out	Grade 2	Grade 2	Grade 1	26	40	09/03/21
[redacted]	468	Grade 1	Tested Out	Grade K	Tested Out	Grade 2	Grade 1	Grade 1	33	63	09/08/21
[redacted]	463	Grade 1	Tested Out	Grade K	Max Score	Grade 1	Grade 1	Grade 1	33	63	09/02/21
[redacted]	461	Grade 1	Tested Out	Grade 1	Tested Out	Grade 1	Grade 1	Grade 2	33	63	09/03/21
[redacted]	451	Grade 1	Tested Out	Grade K	Grade 2	Grade 1	Grade 2	Grade 1	33	63	09/02/21
[redacted]	448	Grade 1	Tested Out	Grade 1	Tested Out	Grade 1	Grade K	Grade 1	33	63	09/03/21
[redacted]	447	Grade 1	Tested Out	Grade 1	Tested Out	Grade 1	Grade 1	Grade 1	33	63	09/09/21
[redacted]	431	Grade 1	Tested Out	Grade K	Grade 1	Grade 1	Grade 1	Grade 1	33	63	09/02/21
[redacted]	431	Grade 1	Tested Out	Grade 1	Tested Out	Grade 1	Grade K	Grade 1	33	63	09/03/21
[redacted]	427	Grade 1	Tested Out	Grade 1	Tested Out	Grade 1	Grade K	Grade K	33	63	09/03/21

Appendix B

MYA I- Ready Diagnostic Assessment Results

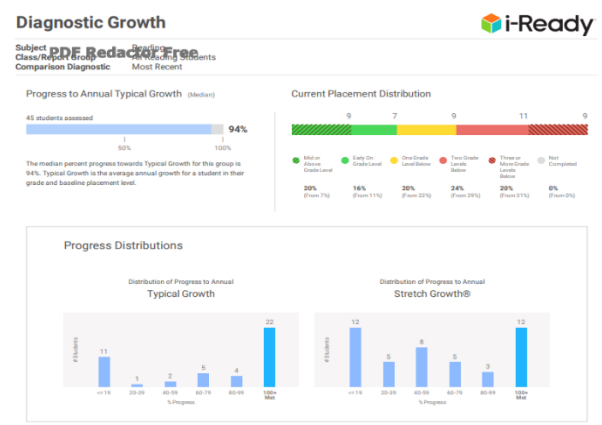


Student	Annual Typical Growth		Annual Stretch Growth®		Baseline Placement & Scale Score	Current Placement & Scale Score
	Percent Progress	Scale Score Progress	Percent Progress	Scale Score Progress		
[redacted]	208%	75/36	95%	75/79	Grade K (403)	Grade 2 (478)
[redacted]	161%	53/33	84%	53/63	Grade 1 (448)	Grade 2 (501)
[redacted]	142%	47/33	75%	47/63	Grade 1 (431)	Grade 2 (478)
[redacted]	131%	34/26	85%	34/40	Grade 2 (477)	Early 3 (511)
[redacted]	115%	38/33	60%	38/63	Grade 1 (451)	Grade 2 (489)
[redacted]	112%	37/33	59%	37/63	Grade 1 (468)	Grade 2 (505)
[redacted]	108%	39/36	49%	39/79	Grade K (316)	Grade K (355)
[redacted]	100%	33/33	52%	33/63	Grade 1 (461)	Grade 2 (494)
[redacted]	100%	17/17	81%	17/21	Late 3 (562)	Late 3 (579)
[redacted]	97%	35/36	44%	35/79	Grade K (402)	Grade 1 (437)
[redacted]	94%	31/33	49%	31/63	Grade 1 (427)	Grade 1 (458)
[redacted]	79%	26/33	41%	26/63	Grade 1 (421)	Grade 1 (447)
[redacted]	78%	28/36	35%	28/79	Grade K (327)	Grade K (355)
[redacted]	68%	15/22	38%	15/39	Early 3 (512)	Early 3 (527)

[redacted]	58%	21/36	27%	21/79	Grade K (391)	Grade K (412)
[redacted]	55%	12/22	31%	12/39	Early 3 (517)	Early 3 (529)
[redacted]	38%	10/26	25%	10/40	Grade 2 (474)	Grade 2 (484)
[redacted]	35%	9/26	23%	9/40	Grade 2 (503)	Early 3 (512)
[redacted]	31%	11/36	14%	11/79	Grade K (329)	Grade K (340)
[redacted]	25%	9/36	11%	9/79	Grade K (400)	Grade K (409)
[redacted]	8%	3/36	4%	3/79	Grade K (314)	Grade K (317)
[redacted]	3%	1/33	2%	1/63	Grade 1 (447)	Grade 1 (448)
[redacted]	3%	1/33	2%	1/63	Grade 1 (421)	Grade 1 (422)
[redacted]	0%	0/26	0%	0/40	Grade 2 (502)	Grade 2 (488)
[redacted]	0%	0/26	0%	0/40	Grade 2 (490)	Grade 2 (482)
[redacted]	0%	0/33	0%	0/63	Grade 1 (431)	Grade K (404)
[redacted]	0%	0/26	0%	0/40	Grade 2 (508)	Grade 2 (503)
[redacted]	0%	0/22	0%	0/39	Early 3 (535)	Early 3 (531)
[redacted]	0%	0/36	0%	0/79	Grade K (409)	Grade K (407)
[redacted]	0%	0/33	0%	0/63	Grade 1 (463)	Grade 1 (458)
[redacted]	0%	0/36	0%	0/79	Grade K (376)	Grade K (340)
[redacted]	0%	0/26	0%	0/40	Grade 2 (500)	Grade 1 (427)
[redacted]	0%	0/26	0%	0/40	Grade 2 (483)	Grade 2 (481)
[redacted]	0%	0/17	0%	0/21	Late 3 (564)	Grade 2 (509)
[redacted]	0%	0/26	0%	0/40	Grade 2 (497)	Grade 2 (493)
[redacted]	0%	0/36	0%	0/79	Grade K (414)	Grade K (410)
[redacted]	0%	0/22	0%	0/39	Early 3 (532)	Early 3 (529)
[redacted]	0%	0/26	0%	0/40	Grade 2 (478)	Grade 1 (470)
[redacted]	0%	0/17	0%	0/21	Late 3 (564)	Late 3 (562)
[redacted]	0%	0/36	0%	0/79	Grade K (347)	Grade K (340)
[redacted]	–	–/36	–	–/79	Grade K (380)	–
[redacted]	–	–/33	–	–/63	Grade 1 (423)	–
[redacted]	–	–/22	–	–/39	Early 3 (514)	–
[redacted]	–	–/33	–	–/63	Grade 1 (430)	–
[redacted]	–	–/36	–	–/79	Grade K (370)	–

Appendix C

EOY I- Ready Diagnostic Assessment Results



Student	Annual Typical Growth		Annual Stretch Growth®		Baseline Placement & Scale Score	Current Placement & Scale Score
	Percent Progress	Scale Score Progress	Percent Progress	Scale Score Progress		
[redacted]	331%	86/26	215%	86/40	Grade 2 (503)	Late 3 (589)
[redacted]	317%	114/36	144%	114/79	Grade K (403)	Early 3 (517)
[redacted]	306%	101/33	160%	101/63	Grade 1 (448)	Mid 3 (549)
[redacted]	300%	108/36	137%	108/79	Grade K (316)	Grade 1 (424)
[redacted]	269%	97/36	123%	97/79	Grade K (402)	Grade 2 (499)
[redacted]	233%	84/36	106%	84/79	Grade K (347)	Grade 1 (431)
[redacted]	223%	49/22	126%	49/39	Early 3 (512)	Late 3 (561)
[redacted]	212%	55/26	138%	55/40	Grade 2 (490)	Mid 3 (545)
[redacted]	191%	42/22	108%	42/39	Early 3 (535)	Late 3 (577)
[redacted]	191%	42/22	108%	42/39	Early 3 (532)	Late 3 (574)
[redacted]	182%	60/33	95%	60/63	Grade 1 (451)	Early 3 (511)
[redacted]	181%	47/26	118%	47/40	Grade 2 (477)	Early 3 (524)
[redacted]	165%	28/17	133%	28/21	Late 3 (564)	Late 3 (592)
[redacted]	164%	54/33	86%	54/63	Grade 1 (431)	Grade 2 (485)

[redacted]	153%	55/36	70%	55/79	Grade K (327)	Grade K (382)
[redacted]	142%	37/26	93%	37/40	Grade 2 (508)	Mid 3 (545)
[redacted]	133%	48/36	61%	48/79	Grade K (376)	Grade 1 (424)
[redacted]	124%	41/33	65%	41/63	Grade 1 (421)	Grade 1 (462)
[redacted]	118%	39/33	62%	39/63	Grade 1 (461)	Grade 2 (500)
[redacted]	114%	25/22	64%	25/39	Early 3 (517)	Early 3 (542)
[redacted]	106%	35/33	56%	35/63	Grade 1 (427)	Grade 1 (462)
[redacted]	106%	35/33	56%	35/63	Grade 1 (468)	Grade 2 (503)
[redacted]	94%	31/33	49%	31/63	Grade 1 (447)	Grade 2 (478)
[redacted]	94%	31/33	49%	31/63	Grade 1 (421)	Grade 1 (452)
[redacted]	85%	28/33	44%	28/63	Grade 1 (423)	Grade 1 (451)
[redacted]	85%	22/26	55%	22/40	Grade 2 (474)	Grade 2 (496)
[redacted]	73%	19/26	48%	19/40	Grade 2 (497)	Early 3 (516)
[redacted]	67%	24/36	30%	24/79	Grade K (400)	Grade 1 (424)
[redacted]	65%	11/17	52%	11/21	Late 3 (562)	Late 3 (573)
[redacted]	64%	23/36	29%	23/79	Grade K (329)	Grade K (352)
[redacted]	61%	22/36	28%	22/79	Grade K (391)	Grade K (413)
[redacted]	48%	16/33	25%	16/63	Grade 1 (431)	Grade 1 (447)
[redacted]	47%	17/36	22%	17/79	Grade K (314)	Grade K (331)
[redacted]	27%	6/22	15%	6/39	Early 3 (514)	Early 3 (520)
[redacted]	8%	3/36	4%	3/79	Grade K (370)	Grade K (373)
[redacted]	6%	2/36	3%	2/79	Grade K (409)	Grade K (411)
[redacted]	0%	0/26	0%	0/40	Grade 2 (502)	Grade 2 (488)
[redacted]	0%	0/36	0%	0/79	Grade K (380)	Grade K (368)
[redacted]	0%	0/33	0%	0/63	Grade 1 (430)	Grade K (384)
[redacted]	0%	0/33	0%	0/63	Grade 1 (463)	Grade 1 (463)
[redacted]	0%	0/26	0%	0/40	Grade 2 (500)	Grade 2 (490)
[redacted]	0%	0/26	0%	0/40	Grade 2 (483)	Grade 2 (481)
[redacted]	0%	0/17	0%	0/21	Late 3 (564)	Early 3 (514)
[redacted]	0%	0/36	0%	0/79	Grade K (414)	Grade K (331)
[redacted]	0%	0/26	0%	0/40	Grade 2 (478)	Grade 1 (466)