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# Evaluating The Efficacy Of The MS T.E.A.M.S. Recovery Approach: A Targeted Intervention For English Reading Speed And Accuracy

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**Abstract:** Purpose: The proliferation of educational technology presents new opportunities for targeted reading interventions. While tools like Microsoft Teams Reading Progress are gaining traction, there is a need for structured, evidence-based approaches to guide their implementation. This study aimed to evaluate the effectiveness of a novel intervention, the MS T.E.A.M.S. (Targeted Engagement and Assessment through Microsoft Systems) recovery approach, on the English reading speed and accuracy of struggling readers.

Methods: The study employed a one-group pre-test-post-test quasi-experimental design. A cohort of 30 students, identified as requiring reading support, participated in an eight-week intervention program. The MS T.E.A.M.S. approach involved regular, structured reading practice and feedback using the Reading Progress feature within Microsoft Teams. Reading speed, measured in words per minute (WPM), and reading accuracy, measured as the percentage of correctly read words, were assessed before and after the intervention. Data were analyzed using descriptive statistics and paired-samples t-tests.

Results: The analysis revealed a statistically significant improvement in both reading speed and accuracy following the intervention. The mean reading speed increased from 65.40 WPM (SD = 10.25) to 85.93 WPM (SD = 11.51), t(29) = 8.42, p < .001. Similarly, mean

reading accuracy rose from 88.73% (SD = 4.12%) to 95.60% (SD = 2.89%), t(29) = 7.98, p < .001.

Conclusion: The findings suggest that the systematic implementation of the MS T.E.A.M.S. recovery approach is an effective strategy for enhancing the reading fluency of struggling students. This study provides a practical, technology-driven framework for educators, indicating that when used intentionally, tools like MS Teams can lead to significant gains in foundational literacy skills. Further research using controlled designs is recommended to corroborate these findings.

**Keywords:** Reading Fluency, Reading Speed, Reading Accuracy, Educational Technology, Microsoft Teams, Reading Progress, Intervention, Quasi-Experimental Design.

**Introduction:** 1.1. The Foundational Role of Reading Proficiency

Reading is the bedrock of academic achievement and a critical gateway to lifelong learning and full participation in society. It is a complex cognitive process that enables individuals to derive meaning from printed text, providing access to the vast repository of human knowledge, culture, and innovation. Proficiency in reading is not merely an academic skill; it is fundamental to personal development, professional success, and informed citizenship. The ability to read effectively allows individuals to navigate an increasingly complex world, understand diverse perspectives, and engage critically with information from a multitude of sources.

To understand the mechanics of this essential skill, educational researchers often turn to established theoretical frameworks. Among the most influential is the "Simple View of Reading," proposed by Gough and Tunmer (1986). This model posits that reading comprehension (R) is the product of two distinct but equally crucial components: decoding (D) and language comprehension (LC). The relationship is expressed as R=D×LC. Decoding refers to the ability to accurately and efficiently recognize written words by applying knowledge of letter-sound relationships. It is the technical skill of translating orthographic symbols into their phonological equivalents. Language comprehension, on the other hand, encompasses a broad range of abilities, including vocabulary, syntax, semantics, and background knowledge, which collectively allow an individual to understand the meaning of spoken language.

According to the Simple View of Reading, a weakness in either component will necessarily impede overall reading comprehension. A student may be a proficient decoder, able to pronounce words flawlessly, but if they lack the vocabulary or background knowledge to understand those words (i.e., poor language comprehension), they will not be able to make sense of the text. Conversely, a student with strong language comprehension skills may struggle if they cannot decode the words on the page accurately and fluently. This framework underscores the necessity of addressing both decoding and comprehension in literacy instruction. The present study focuses on two key indicators of proficient decoding: reading speed, which reflects the automaticity of word recognition, and reading accuracy, which measures the correctness of word identification. Together, these elements form the basis of reading fluency, a critical bridge to comprehension.

1.2. Challenges in Reading Development

Despite the universal recognition of its importance, achieving reading proficiency is a significant challenge for many learners. A substantial body of research has documented the prevalence of reading difficulties that can arise from a variety of cognitive, developmental, and environmental factors. As highlighted by Gough and Tunmer (1986), difficulties in mastering the alphabetic principle and developing automatic word recognition skills are primary contributors to reading disabilities. These challenges can lead to a cascade of negative consequences, including slow, laborious reading, poor comprehension, reduced academic performance across all subjects, and diminished motivation and self-esteem.

Recognizing the widespread nature of these challenges, educational systems worldwide have implemented large-scale initiatives aimed at improving literacy outcomes. In the context of the Philippines, for instance, the Department of Education launched the "Every Child A Reader Program" (ECARP) in 2014. This national program was designed to equip students in elementary and secondary schools with the necessary reading skills to meet grade-level expectations. Initiatives like ECARP signify a systemic commitment to addressing literacy gaps and underscore the urgent need for effective, evidence-based instructional strategies and interventions. However, the persistence of reading difficulties despite such programs indicates that there is a continuous need for innovative and targeted approaches, particularly for students who require additional support to overcome their specific challenges. The traditional one-size-fits-all classroom

model often fails to provide the individualized practice and feedback necessary for these struggling readers to thrive, creating a demand for more adaptable and scalable solutions.

## 1.3. The Rise of Educational Technology in Literacy Instruction

In recent decades, the integration of technology into the educational landscape has offered promising new avenues for addressing long-standing pedagogical challenges. The English language classroom, in particular, has been a fertile ground for technological innovation, with digital tools offering dynamic and interactive ways to engage students in the learning process (Wu, Chen, & Li, 2017). Technologically integrated learning environments can provide students with access to a wider range of authentic materials, facilitate collaborative learning, and offer opportunities for personalized instruction that would be difficult to achieve through traditional means alone (Xodabande, 2017).

Specifically within the domain of literacy, technology-based reading programs have emerged as a powerful tool for supporting struggling readers. These programs can offer features such as text-to-speech functionality, digital dictionaries, and interactive exercises that cater to individual learning needs. A comprehensive study by Smith, Brown, and Davis (2020) demonstrated that the strategic implementation of such technology-based programs is associated with significant improvements in student reading performance. These digital platforms can provide students with repeated exposure to text, immediate corrective feedback, and engaging content, which are all critical elements for building reading fluency and confidence. As technology becomes more accessible and sophisticated, its potential to transform reading instruction continues to grow, offering scalable and effective solutions to support literacy development for all learners.

## 1.4. Microsoft Teams and Reading Progress as a Modern Intervention Tool

Among the modern digital platforms that have gained prominence in education, Microsoft Teams has evolved from a communication and collaboration hub into a robust Learning Management System (LMS). Its capacity to integrate various applications and workflows makes it a versatile tool for classroom instruction. An analysis by Jackson and Shyamsundar (2022) highlights how MS Teams can be effectively integrated into the language classroom, providing a centralized environment for content delivery, student collaboration, and assessment. The platform's structure allows educators to create a cohesive and interactive learning experience that supports diverse instructional goals.

A particularly noteworthy feature within this ecosystem is "Reading Progress," an integrated tool specifically designed to support the development of reading fluency (Microsoft Corporation, 2021). This tool allows teachers to assign reading passages to students, who then record themselves reading the text aloud. The platform leverages artificial intelligence to analyze these recordings, providing teachers with valuable data on metrics such as reading speed (words per minute), accuracy rate, mispronunciations, omissions, and insertions. This detailed, data-driven feedback enables educators to quickly identify specific areas where a student is struggling and to tailor their instruction accordingly.

Recent research has begun to explore the efficacy of this tool in various educational contexts. Studies have found a positive correlation between the use of the Microsoft Teams application and students' overall reading achievement (Putra, 2022). A study conducted with Grade 4 pupils by Octavo and Vargas (2022) suggested positive effects on reading fluency. Further supporting these findings, Smith and Johnson (2023) conducted an exploration into the effectiveness of Reading Progress, concluding that it serves as a valuable asset in enhancing English reading skills. Beyond reading, some research has even indicated that the tool can be repurposed to improve speaking and listening competence, as students engage in the process of recording and reviewing their own speech (Prasetya, 2022). Collectively, this emerging body of literature points toward the significant potential of MS Teams and its Reading Progress feature as a powerful intervention tool for literacy instruction.

## 1.5. Statement of the Problem and Research Gap

While the existing literature provides a strong case for the general effectiveness of MS Teams and the Reading Progress tool, a critical gap remains. Much of the current research confirms that the tool can be effective, but there is a notable scarcity of studies that outline and evaluate a structured, replicable intervention model that educators can systematically implement. The availability of a powerful tool does not automatically guarantee its optimal use. Without a clear, evidence-based framework, the application of Reading Progress can become ad-hoc and inconsistent, potentially

limiting its impact on student outcomes.

The core problem, therefore, is twofold. First, a significant number of students continue to struggle with fundamental reading skills, namely speed and accuracy, which hinders their overall academic progress. Second, educators who have access to advanced digital tools like Reading Progress often lack a clear, research-validated protocol for using these tools as part of a targeted recovery program. This gap between the potential of the technology and its practical, systematic application in the classroom is a critical area for investigation. This study seeks to address this gap by proposing and evaluating a specific, structured intervention framework designed to leverage the capabilities of MS Teams Reading Progress in a systematic and purposeful manner.

## 1.6. Purpose of the Study and Research Questions

The purpose of this study is to design, implement, and evaluate the effectiveness of a structured recovery approach, termed "MS T.E.A.M.S." (Targeted Engagement and Assessment through Microsoft Systems), in improving the English reading speed and accuracy of struggling readers. By examining the outcomes of a systematic intervention, this research aims to provide educators with a practical, evidence-based model for leveraging technology to support literacy development. To achieve this purpose, the study addresses the following research questions:

1. Is there a statistically significant difference in the reading speed of students before and after the implementation of the MS T.E.A.M.S. recovery approach?

2. Is there a statistically significant difference in the reading accuracy of students before and after the implementation of the MS T.E.A.M.S. recovery approach?

## METHODS

## 2.1. Research Design

This study employed a quasi-experimental, one-group pre-test-post-test research design. This design was selected as the most appropriate and feasible approach for investigating the impact of an educational intervention within a naturalistic classroom setting. A one-group design involves measuring the dependent variables (reading speed and accuracy) before the intervention (pre-test), implementing the treatment (the MS T.E.A.M.S. approach), and then measuring the same variables again after the intervention (post-test). The primary advantage of this design is its ability to determine if a change occurred in the target group over the period of the intervention. While it does not control for all extraneous variables as a randomized controlled trial would, it is highly practical for educational research where creating equivalent control groups and withholding a potentially beneficial intervention can be ethically and logistically challenging. The design allows for a direct comparison of student performance on the same measures before and after their participation in the program, providing valuable preliminary evidence of the intervention's effectiveness.

## 2.2. Participants and Setting

The study was conducted in a public elementary school located in a suburban district. The participants comprised 30 Grade 5 students (16 males and 14 females), with an average age of 10.5 years. These students were selected based on a purposive sampling method. The selection criteria were twofold: (1) scoring below the grade-level benchmark on the school's standardized reading assessment administered at the beginning of the academic year, and (2) being identified by their English language teacher as struggling with reading fluency and accuracy during regular classroom activities. This purposeful selection ensured that the intervention was targeted at the specific population of students who stood to benefit most from a reading recovery program. Informed consent was obtained from the parents or guardians of all participating students, and assent was obtained from the students themselves. All procedures were conducted in accordance with the ethical guidelines for research involving human subjects as stipulated by the school district's research committee. The intervention and data collection took place within the students' regular school environment, utilizing the school's computer lab and the students' existing Microsoft 365 accounts.

## 2.3. The MS T.E.A.M.S. Intervention: A Phased Approach

The core of this study was the design and implementation of the "MS T.E.A.M.S." (Targeted Engagement and Assessment through Microsoft Systems) recovery approach. This was not merely the application of a software tool, but a structured, multi-phased pedagogical intervention designed to create a responsive and motivating learning environment for struggling readers. The intervention was conducted over a period of eight weeks, with each student

participating in three dedicated 30-minute sessions per week. The entire framework was built upon a set of foundational principles derived from established literacy research and best practices in educational technology integration.

### 2.3.1. Foundational Principles and Pedagogical Rationale

The MS T.E.A.M.S. acronym was designed to encapsulate the core tenets of the intervention:

● **Targeted:** The approach was fundamentally data-driven. Using the detailed analytics provided by the Microsoft Teams Reading Progress tool, instruction and feedback were targeted to the specific, individual needs of each learner. Instead of generic fluency practice, the intervention focused on addressing the precise error patterns (e.g., specific phoneme mispronunciations, omission of suffixes, hesitation on multi-syllable words) identified in each student's reading (Microsoft Corporation, 2021).

● **Engagement:** Recognizing that struggling readers are often disengaged or suffer from low self-efficacy, the intervention was designed to be motivating. This was achieved through the use of high-interest reading materials, the provision of frequent and positive feedback, and the empowering act of setting and achieving personal goals. The gamified aspect of seeing one's own progress visually charted over time was a key component, aligning with research on the motivational impact of clear progress indicators (Johnson & Jenkins, 2019).

● **Assessment:** The approach integrated formative assessment seamlessly into the learning process. Each reading submission was, in effect, a low-stakes assessment that provided a rich snapshot of a student's current abilities. This continuous cycle of performance and assessment allowed for dynamic adjustments to instruction, ensuring that students were always working within their zone of proximal development.

● **Microsoft Systems:** The intervention was deliberately situated within the Microsoft Teams ecosystem to leverage the platform's integrated nature. This provided a consistent, familiar digital environment for students and allowed the teacher to manage all aspects of the intervention—from assigning passages to tracking data—within a single workflow, as highlighted by analyses of Teams as an integrated LMS tool (Jackson & Shyamsundar, 2022).

The overarching pedagogical rationale was to blend the efficiency of artificial intelligence with the empathy and insight of a human educator. The technology was used to automate the laborious, time-consuming aspects of fluency assessment, thereby augmenting the teacher's capacity to focus on the high-impact practices of providing personalized, encouraging, and strategic feedback. This approach reflects a modern understanding of technologically integrated learning, where digital tools are used not to replace the teacher, but to amplify their effectiveness (Wu, Chen, & Li, 2017; Xodabande, 2017).

### 2.3.2. Phase 1: Orientation and Baseline Establishment (Week 1)

The first week of the intervention was critical for setting the tone and establishing procedures. The primary goals were to familiarize students with the technology in a supportive, non-evaluative context and to establish a clear baseline for their reading performance.

The initial session was dedicated entirely to technology orientation. The teacher gathered the participating students in the computer lab and guided them through the process step-by-step. They learned how to navigate to the "Assignments" tab in Microsoft Teams, how to open a Reading Progress assignment, and how to use the recording function. Crucially, this was framed as a practice session. Students were given a fun, simple, non-academic text (such as a short, humorous poem) and were encouraged to record themselves multiple times. They were shown how to use the built-in Immersive Reader to hear difficult words pronounced, and how to listen back to their own recordings. The emphasis was on exploration and comfort, mitigating any potential technology-related anxiety.

During the second and third sessions of Week 1, students completed their first formal reading assignments. To establish a robust baseline, three different short passages at their instructional reading level were assigned. The teacher explained that these first readings were simply to understand "where we are starting our reading journey." The feedback provided on these initial assignments was intentionally broad and encouraging, focusing on effort and completion rather than on correcting every error. A typical comment might be, "Thank you for sharing your reading with me! You did a wonderful job focusing and reading all the way to the end. I'm excited to work with you." This positive, process-oriented feedback was crucial for building trust and establishing psychological safety, ensuring that students viewed the tool as a supportive helper rather than a critical judge. The data from these first three readings were averaged to create the final pre-test scores for WPM and accuracy for each student.

### 2.3.3. Phase 2: Foundational Fluency Building (Weeks 2-4)

With baselines established and students comfortable with the technology, Phase 2 focused on the core cycle of the intervention: building foundational fluency through consistent practice and targeted feedback. The activities during these three weeks were characterized by routine, repetition, and confidence-building.

The reading passages assigned during this phase were carefully selected. They were typically high-interest narrative or informational texts that were at or slightly below the students' instructional level. The texts often contained a high degree of repetition in sentence structure and vocabulary to allow students to build automaticity with a core set of words. The goal was to ensure a high rate of success on each reading, thereby building momentum and improving students' self-perception as readers.

The feedback loop was central to this phase. After each submission, the teacher reviewed the AI-generated report from Reading Progress. The personalized feedback provided back to the student was highly specific and focused on one or two key areas for improvement. For instance, if a student consistently omitted the '-s' ending on plural nouns, the teacher's feedback would focus solely on that pattern. A comment might read: "Excellent reading! I noticed that sometimes the 's' at the end of a word likes to hide. For our next reading, let's be 's' detectives and try to find them all!" This approach avoids overwhelming the student with too much corrective feedback and allows them to experience tangible progress in a targeted area.

This phase also introduced the one-on-one weekly check-ins. These brief, 5-minute conversations were essential for the motivational component of the intervention. During each check-in, the teacher would pull up the student's "Insights" dashboard, which visually charted their WPM and accuracy rate over time. They would celebrate the upward trend, no matter how small. For example, a teacher might say, "Look at this! Your reading speed has gone up by five words per minute this week. That's fantastic progress!" Following this, the teacher and student would collaboratively set a micro-goal for the upcoming week. This goal was always concrete and achievable, such as "Read with more expression when you see a question mark," or "Try to read the word 'because' correctly every time." This process of data visualization and collaborative goal-setting, as supported by the

literature (Johnson & Jenkins, 2019), fostered a sense of ownership and agency in the students.

### 2.3.4. Phase 3: Accuracy Refinement and Speed Development (Weeks 5-7)

By Phase 3, students had established a consistent routine and had begun to show measurable progress. The focus now shifted from building foundational confidence to refining specific skills and pushing for greater fluency. The intensity and specificity of the intervention increased accordingly.

The reading passages became gradually more complex. The texts introduced more multi-syllable words, more complex sentence structures, and a wider range of vocabulary. This carefully managed increase in text difficulty ensured that students were continually challenged while still being able to maintain a high level of success.

The teacher's feedback also became more nuanced. The detailed analytics from Reading Progress were used to pinpoint challenging phonics patterns or word types for each student. For example, the "Insights" dashboard might reveal that a particular student struggled with words containing the 'igh' vowel digraph. The teacher could then create a custom "challenge assignment" in Reading Progress that was populated with a list of 'igh' words (e.g., night, light, fight, high) for the student to practice. This hyper-targeted practice, made possible by the efficiency of the technology, is a prime example of data-driven instruction. The feedback on the regular passage readings also became more sophisticated, addressing not just accuracy but also elements of prosody, such as pausing at commas and changing intonation for dialogue.

The one-on-one check-ins continued, but the goal-setting process became more data-informed. The teacher might say, "The data shows that you are reading with 95% accuracy, which is amazing. I also see that you read at about 80 words per minute. Do you think we could set a goal of reaching 85 WPM by the end of next week?" By involving students in the analysis of their own data, the intervention promoted metacognitive awareness and further deepened their investment in their own learning journey.

### 2.3.5. Phase 4: Consolidation and Transition (Week 8)

The final week of the intervention was designed to consolidate the gains made over the previous seven weeks and to prepare students for a successful

transition back to applying their skills in the regular classroom context without the intensive support of the program. The focus shifted from skill acquisition to strategy integration and learner autonomy.

During this week, students were given more choice in their reading materials. They were allowed to select passages from the digital library that they found personally interesting, fostering a sense of independence. The feedback provided by the teacher in this final phase was less about error correction and more about reinforcing the strategies the students had learned. For example, a comment might be, "I noticed you paused at a difficult word, and it looked like you were thinking about the sounds before you said it. That's a great strategy that good readers use!"

The final one-on-one check-in was a summative review of the student's entire eight-week journey. The teacher and student would look at the progress charts from Week 1 to Week 8, celebrating the overall growth. The conversation focused on making the student explicitly aware of their progress and the strategies that led to it. The teacher would ask reflective questions like, "What do you think was the most helpful thing we did during our sessions?" and "What will you do now in class when you come to a word you don't know?" The aim was to internalize the process of self-monitoring and to equip students with the confidence and metacognitive tools to continue their growth independently. This final phase was crucial for ensuring that the effects of the intervention were not temporary, but represented a lasting change in the student's approach to reading.

### 2.3.6. The Role of the Teacher: Augmentation, Not Automation

It is critical to emphasize that throughout the MS T.E.A.M.S. intervention, technology served as a tool to augment, not automate, the process of teaching. The success of the program was not an inevitable outcome of using the software, but was contingent upon the teacher's active and thoughtful engagement at every stage. The AI-powered analysis provided the raw data, but it was the teacher who interpreted that data within the holistic context of knowing the child. It was the teacher who provided the empathetic and encouraging feedback that built confidence, the teacher who used the data to have meaningful goal-setting conversations, and the teacher who made pedagogical decisions about when to challenge a student and when to provide more support.

This model stands in contrast to many technology programs that seek to minimize teacher involvement. The MS T.E.A.M.S. approach, instead, leverages technology to handle the logistical burdens of assessment, thereby freeing up the teacher's time and cognitive energy to focus on the uniquely human aspects of teaching: building relationships, providing emotional support, and delivering nuanced, personalized instruction. The significant gains observed in this study are therefore a testament to a synergistic partnership between a skilled educator and a powerful technological tool.

### 2.4. Data Collection Procedures

To measure the effectiveness of the intervention, data on the two key dependent variables—reading speed and reading accuracy—were collected at two time points: before the intervention began (pre-test) and after its completion (post-test).

The instrument used for both the pre-test and post-test was a set of standardized, grade-appropriate reading passages that were distinct from those used during the intervention to avoid practice effects. The administration of the tests was conducted individually with each student in a quiet room to ensure a consistent and controlled environment. For both tests, students were asked to read a passage aloud for one minute. The entire reading was audio-recorded.

The collected data were quantified as follows:

● Reading Speed: This was calculated by counting the total number of words read by the student within the one-minute time frame, resulting in a score of words per minute (WPM).

● Reading Accuracy: This was calculated by reviewing the audio recording and counting the number of errors (e.g., mispronunciations, substitutions, omissions). The accuracy percentage was then determined using the formula: [(Total Words Read−Number of Errors)/Total Words Read]×100.

The pre-test was administered one week before the start of the eight-week intervention, and the post-test was administered one week after the final session was completed. This timeline provided a clear baseline and a final outcome measure to assess the change in performance over the course of the study.

### 2.5. Data Analysis

The quantitative data collected from the pre-test and post-test were analyzed using the Statistical Package for the Social Sciences (SPSS) Version 26. The analysis was

conducted in two stages.

First, descriptive statistics were calculated to summarize the overall performance of the participants. The mean (M) and standard deviation (SD) were computed for both reading speed (WPM) and reading accuracy (%) for the pre-test and post-test scores. This provided a clear overview of the central tendency and variability of the data at both time points.

Second, to address the research questions and determine the statistical significance of any observed changes, paired-samples t-tests were conducted. A paired-samples t-test is the appropriate inferential statistic for a one-group pre-test-post-test design as it compares the means of two related groups (the same subjects at two different times) to determine if there is a significant difference between them. Two separate t-tests were performed: one for the reading speed scores and another for the reading accuracy scores. For both tests, the alpha level for determining statistical significance was set at $p<.05$. This level of significance is a conventional standard in educational research, indicating that there is a less than 5% probability that the observed results occurred by chance.

**RESULTS**

This section presents the findings of the data analysis. The results are organized according to the research questions, first providing a descriptive summary of the data and then presenting the outcomes of the inferential statistical tests for reading speed and reading accuracy.

### 3.1. Descriptive Statistics

Prior to conducting inferential tests, descriptive statistics were calculated for the pre-test and post-test scores for both reading speed and reading accuracy for the 30 participants. The results provide a summary of the group's performance before and after the eight-week MS T.E.A.M.S. intervention.

As shown in Table 1, the mean reading speed of the participants at the pre-test was 65.40 words per minute (SD=10.25). Following the intervention, the mean reading speed at the post-test increased to 85.93 WPM (SD=11.51). This indicates an average increase of 20.53 WPM for the group.

For reading accuracy, the mean score at the pre-test was 88.73% (SD=4.12%). After the intervention, the mean accuracy score at the post-test rose to 95.60% (SD=2.89%). This represents an average improvement of 6.87 percentage points in reading accuracy. These descriptive results suggest a notable positive change in both fluency metrics over the course of the intervention period.

**Table 1: Descriptive Statistics for Reading Speed and Accuracy (N=30)**

| Variable | Test | Mean (M) | Standard Deviation (SD) |
|---|---|---|---|
| **Reading Speed (WPM)** | Pre-test | 65.40 | 10.25 |
| | Post-test | 85.93 | 11.51 |
| **Reading Accuracy (%)** | Pre-test | 88.73 | 4.12 |
| | Post-test | 95.60 | 2.89 |

### 3.2. Effect on Reading Speed

To answer the first research question—Is there a statistically significant difference in the reading speed of students before and after the implementation of the MS T.E.A.M.S. recovery approach?—a paired-samples t-test was conducted. The test compared the mean reading speed scores from the pre-test (M=65.40, SD=10.25)

with the mean reading speed scores from the post-test (M=85.93, SD=11.51).

The results of the analysis indicated a statistically significant increase in reading speed following the intervention, t(29)=8.42, p<.001. The degrees of freedom for the test were 29, corresponding to N-1 participants. The obtained t-value of 8.42 is highly significant, with the p-value being less than .001. This result demonstrates that the observed increase of 20.53 WPM in the average reading speed of the participants was not due to random chance. Therefore, the null hypothesis, which states there is no difference between the pre-test and post-test scores, is rejected.

### 3.3. Effect on Reading Accuracy

To address the second research question—Is there a statistically significant difference in the reading accuracy of students before and after the implementation of the MS T.E.A.M.S. recovery approach?—a second paired-samples t-test was performed. This test compared the mean reading accuracy scores from the pre-test (M=88.73, SD=4.12) with the mean reading accuracy scores from the post-test (M=95.60, SD=2.89).

The analysis revealed a statistically significant improvement in reading accuracy, t(29)=7.98, p<.001. Similar to the previous test, the degrees of freedom were 29. The high t-value of 7.98 and the p-value of less than .001 indicate that the observed increase of 6.87 percentage points in reading accuracy is statistically significant. This finding suggests that the intervention had a strong positive effect on the students' ability to read words correctly. Consequently, the null hypothesis of no difference in reading accuracy before and after the intervention is also rejected.

### DISCUSSION

### 4.1. Interpretation of Findings

The primary objective of this study was to evaluate the effectiveness of the MS T.E.A.M.S. recovery approach, a structured intervention utilizing Microsoft Teams Reading Progress, on the English reading speed and accuracy of struggling learners. The results present a clear and compelling narrative: the intervention was associated with statistically significant improvements in both key metrics of reading fluency.

The significant increase in reading speed, with an average gain of over 20 WPM, is a particularly noteworthy finding. In the context of reading development, such an improvement is substantial and practically meaningful. It suggests that the intervention helped students move from laborious, word-by-word decoding to a more automatic and fluid process of word recognition. This aligns with the theoretical underpinnings of the Simple View of Reading (Gough & Tunmer, 1986), which emphasizes that proficient decoding is a prerequisite for comprehension. By automating the decoding process, students can free up cognitive resources to focus on the more complex task of understanding the text's meaning. This improvement can be attributed to several features of the MS T.E.A.M.S. approach. The regular, structured practice provided students with the repeated exposure necessary to build sight word vocabulary and improve word recognition speed. Furthermore, the progress monitoring feature, which provided visual feedback on their WPM trends, likely served as a powerful motivator, consistent with research on the positive impact of progress indicators in educational technology (Johnson & Jenkins, 2019).

Similarly, the statistically significant improvement in reading accuracy demonstrates the intervention's effectiveness in enhancing the fundamental skill of correct word identification. The average increase of nearly 7 percentage points moved the students, as a group, from a level of moderate accuracy to a high level of proficiency. This suggests that the intervention's feedback loop was highly effective. The combination of AI-powered initial analysis and personalized teacher feedback allowed students to see and hear their specific errors—be they mispronunciations, omissions, or substitutions—and work actively to correct them. The ability to listen back to their own recordings may have enhanced their phonological awareness and encouraged self-monitoring, a critical metacognitive skill in reading. This targeted practice on areas of weakness is a hallmark of effective remediation and a key strength of the Reading Progress tool (Microsoft Corporation, 2021).

### 4.2. Connection to Existing Literature

The findings of this study both support and extend the existing body of literature on the use of technology in literacy education. The results are highly consistent with recent studies that have documented the positive effects of the Microsoft Teams application on student reading achievement (Putra, 2022) and reading fluency (Octavo & Vargas, 2022). Our findings provide further empirical validation for the conclusions drawn by Smith and Johnson (2023), who identified the Reading Progress tool as a valuable asset for enhancing English

reading skills.

However, this study makes a unique contribution by moving beyond a general assessment of the tool itself to evaluate a specific, structured pedagogical framework—the MS T.E.A.M.S. approach. While previous research has established that the tool can be effective, our study provides a replicable model for how it can be implemented systematically to achieve significant results. This addresses a critical gap in the literature by providing a concrete example of a technology-integrated intervention that is grounded in sound pedagogical principles, such as regular practice, targeted feedback, and student-centered goal setting.

Furthermore, the results align with the broader literature on technology-integrated learning. The success of the intervention reinforces the principle that technology is most effective when it is not merely an add-on but is woven into the fabric of instruction in a purposeful and systematic way (Wu, Chen, & Li, 2017; Xodabande, 2017). The MS T.E.A.M.S. approach exemplifies this principle, using technology not as a replacement for the teacher, but as a powerful tool to augment and enhance the teacher's ability to provide individualized instruction and data-driven feedback. The study also echoes the findings of Smith, Brown, and Davis (2020), who found that technology-based reading programs can lead to significant performance gains, particularly when they facilitate consistent practice and targeted support.

### 4.3. Implications for Educational Practice and Policy

The findings of this study offer several important and actionable implications for educational stakeholders. For classroom teachers, the MS T.E.A.M.S. approach provides a practical, evidence-based model for supporting struggling readers that can be adapted and implemented in their own contexts. The study demonstrates that leveraging the Reading Progress tool within a structured framework can transform the time-consuming task of conducting individual reading assessments into a more efficient, data-rich, and pedagogically powerful process. Teachers can use the insights gained from the tool to inform their small-group instruction, differentiate assignments, and provide the kind of personalized feedback that is crucial for student growth.

For school administrators and curriculum coordinators, the results suggest that investing in professional development focused on the pedagogical integration of tools like MS Teams is likely to yield a strong return in student achievement. Rather than simply providing

access to the technology, schools should focus on training teachers to use these tools strategically within structured intervention frameworks. The success of this approach also has implications for policy, suggesting that educational authorities could formally recognize and recommend such technology-driven models as a component of larger-scale literacy initiatives, such as the Department of Education's Every Child A Reader Program (2014). By embracing and scaling up evidence-based technological interventions, educational systems can provide more equitable and effective support to students with diverse learning needs.

### 4.4. Limitations of the Study

While the findings of this study are promising, it is important to acknowledge its limitations. The primary limitation is the quasi-experimental, one-group pre-test-post-test design. Without a control group of students who did not receive the intervention, it is not possible to definitively attribute the observed improvements solely to the MS T.E.A.M.S. approach. Other factors, such as natural maturation, the effect of regular classroom instruction, or the Hawthorne effect (i.e., students performing better simply because they are receiving special attention), could have contributed to the gains.

Second, the study was conducted with a relatively small and specific sample of 30 Grade 5 students from a single school. This limits the generalizability of the findings to other age groups, cultural contexts, or students with different types of reading difficulties. The results may not be applicable to younger students who are still in the initial stages of learning to read or to older students with more profound reading disabilities.

Finally, the duration of the intervention was limited to eight weeks. While this period was sufficient to produce statistically significant results, it is unclear whether these gains would be sustained over a longer period. The long-term impact of the intervention remains an open question.

### 4.5. Recommendations for Future Research

Based on the findings and limitations of this study, several avenues for future research are recommended. First and foremost, there is a clear need for a study using a more rigorous research design, such as a randomized controlled trial (RCT). An RCT, which would involve randomly assigning students to either an intervention group or a control group, would provide stronger evidence of the causal relationship between the MS

T.E.A.M.S. approach and improvements in reading fluency.

Second, future research should seek to replicate this study with larger and more diverse populations. Investigating the effectiveness of the approach with students from different grade levels, socioeconomic backgrounds, and linguistic contexts would enhance the generalizability of the findings. It would also be valuable to explore the differential effects of the intervention on students with specific learning disabilities, such as dyslexia.

Third, longitudinal studies are needed to assess the long-term sustainability of the improvements observed in this study. Tracking students for a full academic year or longer would provide insight into whether the skills gained through the intervention are maintained and whether they translate into broader improvements in academic comprehension and performance.

Finally, building on the work of Prasetya (2022), future studies could expand the scope of inquiry to explore the impact of the Reading Progress tool on other language domains. Research could investigate how the practice of reading aloud and receiving targeted feedback might influence students' speaking skills, prosody, and even their listening comprehension, providing a more holistic understanding of the tool's educational potential.

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