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Enhancing Seventh Graders Reading Proficiency with Achieve3000

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ABSTRACT

Reading in middle school is vital since students must build comprehension and critical thinking skills and positively impact academic performance. In this quantitative longitudinal research, the reading performance of seventh-grade students attending Title I schools was investigated using the Achieve3000 program. Eighty-nine seventh-grade students were involved who underwent intensive reading programs. Achieve3000 Level Sets, the results of the Florida state reading exams, and in-classroom grades measured reading performance. Demographic parameters, such as gender, ethnicity, English proficiency, absenteeism, exceptional status, and activities performed, were used as independent variables to analyze their impact on the program's effect. Constant real-time monitoring of data conducted by Achieve3000 enabled a deeper examination of students' development. The program had a high impact on reading abilities, which started with 15% progress in comprehension and 10% in total academic achievement, considered a program effect. Technology in reading has shown its high efficiency concerning literacy improvement and equal reading opportunities for all students.

Keywords: title I schools, Achieve3000, personalized learning, adaptive technology

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1. Enhancing Seventh Graders Reading Proficiency with Achieve3000

Reading proficiency is a foundation of academic success and lifelong learning. In addition, seventh grade is essential for students' reading abilities as it can significantly influence their overall academic achievement (Martinez-Lincoln et al., 2021; Schumaker, 2022). While students transition into middle school and the demands on their literacy skills increase, effective reading interventions become vital since they can address reading challenges, enhance comprehension and literacy skills, and foster a supportive learning environment that will boost academic achievement across all subjects (Foorman et al., 2020). To address the diverse requirements of students and provide them with the necessary strategies and skills to become proficient readers, educational research has placed a considerable accent on the impact of reading interventions on student achievement (Achieve3000®, 2018; Alzahrani, 2023; Cannon et al., 2020; Hurwitz et al., 2022 Li & Zhang, 2022; Magableh & Abdullah, 2020; Mo, 2021). That can be accomplished through a variety of methods: phonics instruction, vocabulary development, reading comprehension strategies, fluency practice, differentiated teaching strategies, personalized instruction, and adaptive learning technologies (D'Agostino et al., 2024; Dennis & Whalon, 2021; Folsom et al., 2019; Reed, 2023).

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2. Literature Review

2.1 Use of Differentiated Instructions for Reading Interventions

Differentiated instruction is a pedagogical approach that adapts teaching materials, methods, and assessments to accommodate individual learning abilities, styles, and interests, and they are essential in literacy education (Coppens, 2019; Folsom et al., 2019; Hurwitz et al., 2022; Martinez-Lincoln et al., 2021). This method facilitates reading and writing proficiency acquisition for all learners, regardless of their starting point (students arrive in the classroom with varying levels of learning preferences, background knowledge, learning preferences, and progress rate) and stresses responsive and adaptable teaching strategy (Achieve3000®, 2018; Borman et al., 2023; Wanzek et al., 2021; Wolf et al., 2020). Nevertheless, flexible classification, ongoing assessment, and several instructional strategies are crucial components of differentiated instruction (Basma & Savage, 2023; Calvin & Gray, 2022; Reed, 2023; Whittingham et al., 2024).

One of the components of differentiated instruction is flexible classification (Calvin & Gray, 2022; Haymon & Wilson, 2020; Whittingham et al., 2024). Instead of being assigned to fixed groups, students might be grouped and regrouped based on their learning objectives, interests, or skill levels. This methodology promises that learners receive instructions personalized to their instant requirements and that they can participate in collaborative learning experiences with peers who possess opposite or comparable abilities (Albee et al., 2019; Kim et al., 2017; Tolar et al., 2014).

Another element is an ongoing assessment in a variety of forms, such as observations, formative assessments, and student self-assessments, offering a wide-ranging understanding of each student's learning (Alzahrani, 2023; D'Agostino et al., 2024; Raulerson, 2018; Reed, 2023). Educators gather student comprehension data and progress, recognize where scholars might require extra support or enrichment, and advise instructional planning (Yakut, 2020). Consequently, teachers use an ongoing assessment method to endorse effective learning outcomes and meet learners' diverse requirements (Dennis & Whalon, 2021; Folsom et al., 2019; May et al., 2021).

2.2 Use of Technology for Reading Interventions

To effectively implement differentiated instruction in literacy education, it is essential to implement diverse instructional strategies (DeVries, 2023; Basma & Savage, 2023), and among the strategies are direct instruction, cooperative learning, independent reading and writing activities, and technology that facilitates personalized learning (Alzahrani, 2023; Li & Zhang, 2022; Mo, 2021). Personalized reading instruction is a teaching approach that modifies educational experiences to meet each scholar's unique needs, interests, and abilities (Achieve3000®, 2018; Jarke et al., 2020). It involves continuous assessment to collect student progress and comprehension data and allows teachers to modify their instructional strategies as needed (Dennis & Whalon, 2021).

In addition, adaptive learning technologies are frequently implemented in personalized instruction (Hill et al., 2017; Hurwitz et al., 2022). They provide real-time feedback and modify the complexity of reading materials to correspond with students' reading abilities (Norman, 2023; Reed, 2023). These technologies apply algorithms and data analytics to deliver personalized learning experiences to each student, thus ensuring that they are neither overextended nor under-challenged, fostering optimal learning experiences (Achieve3000®, 2018; Goodwin et al., 2020; Kim et al., 2017; Mo, 2021).

The existing research demonstrates that personalized and adaptive learning technologies boost reading comprehension, fluency, and overall academic achievement (Cannon et al., 2020; Dennis & Whalon, 2021; Hurwitz et al., 2022). An innovative online literacy platform, Achieve3000, is a personalized and adaptive learning technology that offers customized reading instructions tailored to each student's unique reading level (Achieve3000®, 2018; Borman et al., 2023). This personalized approach builds confidence, fosters engagement, and promotes meaningful learning experiences (Capin et al., 2024; Gutierrez de Blume et al., 2021; Kim et al., 2017).

Besides, Achieve3000® endlessly assesses student performance and adjusts the reading materials' difficulty based on individual progress (Achieve3000®, 2018; Jarke et al., 2020; Lauritzen, 2018), which guarantees that students are steadily challenged at the appropriate level and remain engaged. In addition, Achieve3000 activities might expand reading abilities and accelerate literacy development by providing attractive nonfiction content (Torres, 2019). Furthermore, the program's data-driven method is intended to meet students' diverse learning requirements in the classroom and support them in achieving college and career readiness (Achieve3000®, 2018; Hill et al., 2017).

3. Purpose of the Study

This quantitative longitudinal study aimed to determine the effectiveness of utilizing Achieve3000 with seventh-grade students in a Florida Title I middle school taking intensive reading classes. This includes an analysis of the following metrics: classroom grades, scores from Level Sets in Achieve3000, and performance on the Florida state reading test. The demographic variables that were thought to impact the reading outcomes, such as gender, ethnicity, English proficiency, exceptional status, 504 plan, students' absenteeism from school, and number of completed activities on Achieve3000, were examined. The results of the research help to provide a clear understanding of how reading interventions directed at students in 7th grade could be used to improve literacy struggles and academic success.

4. Theoretical Framework

Two major theoretical frameworks were used to evaluate the effectiveness of the Achieve3000 program in improving the reading achievements of seventh-grade students: sociocultural theory and the theory of planned behavior (TPB).

4.1 Sociocultural Theory

According to Lev Vygotsky's sociocultural theory, learning is a social process in which learners build knowledge through interactions with their environment and others (Vygotsky & Cole, 1978). This concept is relevant to the Achieve3000 program, which offers customized reading experiences personalized to each student's cultural and social background. In addition, the program's scaffolding approach is an example of Vygotsky's concept of the Zone of Proximal Development (ZPD), which offers students the support and challenges needed to enhance their reading proficiency (Rogoff, 1990; Vygotsky & Cole, 1978).

4.2 Theory of Planned Behavior

Ajzen's theory of planned behavior (TPB) examines how individual attitudes, social influences, and perceived control over behavior predict intentions and actions. According to TPB, students' confidence in their capacity to succeed, support from teachers and peers, and attitudes toward reading activities all influence their engagement in these activities (Ajzen, 1991). The

Achieve3000 program might enhance students' perceived control and motivation by providing immediate feedback, real-time data, and progress monitoring.

4.3 Use of Technology

Both frameworks can measure the function of technology in enhancing literacy outcomes. Achieve3000's adaptive technology adapts learning experiences, which is reliable with the TPB's emphasis on improving perceived behavioral control and the sociocultural accent on culturally relevant content. In this situation, technology enables the delivery of interactive and engaging reading materials, supports consistent engagement through real-time data monitoring, and delivers adaptive challenges customized to meet each learner's unique requirements (Hurwitz et al., 2022; Kim et al., 2017).

5. Method

5.1 Research Questions

The following questions direct the study towards the objectives:

1) Primary research question.

- To what extent does the Achieve 3000 program enhance the reading abilities of seventh-grade students in intensive reading classes?

2) Secondary research questions.

- How do gender and ethnicity affect literacy achievement in the Achieve 3000 program?
- What are the correlations between the literacy achievement of students and their English proficiency in the Achieve 3000 program?
- What is the impact of having an exceptional status and a 504 plan on literacy outcomes in the Achieve 3000 program?
- What are the correlations between literacy achievement and absenteeism in the Achieve 3000 program?
- What is the relationship between the number of activities completed and their scores within the Achieve 3000 program and overall literacy achievement?

5.2 Study Design

This quantitative longitudinal study, encompassing the 2023–2024 academic year, examined the efficacy of the Achieve3000 program in enhancing the reading abilities of seventh-grade students enrolled in intensive reading classes at a Florida Title I school. By systematically collecting and analyzing numerical data over an extended period, this approach provided a comprehensive and objective evaluation of the program's impact on student reading performance (Creswell & Creswell, 2018). The study's objective was to provide valuable insights into the efficacy of differentiated reading interventions and their functions in supporting the diverse requirements of middle school students.

5.3 Participants

The participants were chosen through purposive sampling to guarantee they satisfied specific reliable criteria with the research focus (Teddlie & Yu, 2007). This approach enabled the collection of a diverse sample that precisely represented the demographic characteristics of the study. To be considered, students were required to participate in intensive reading classes using

the Achieve3000 program for the academic year, be enrolled in school, and complete all three state reading examinations and all three Achieve3000 Level Sets.

The total number of potential participants was 112 students enrolled in five intensive reading classes with the same teacher, who attended the class five times a week for 45 minutes daily. However, the study only included 89 students who met the inclusion criteria, 39 female and 50 male students (Figure 1). The racial composition of the sample was 29 Black or African American, 15 Latino or Hispanic, 6 Multi-Racial, and 39 White (Figure 2). The sample included 4 ELL students (Figure 3), one student with language impairment, two students with emotional or behavioral disabilities, 27 students with specific learning disabilities, 1 hospitalized or homebound student, 57 students without exceptional statuses, and one student with autism spectrum disorder (Figure 4).

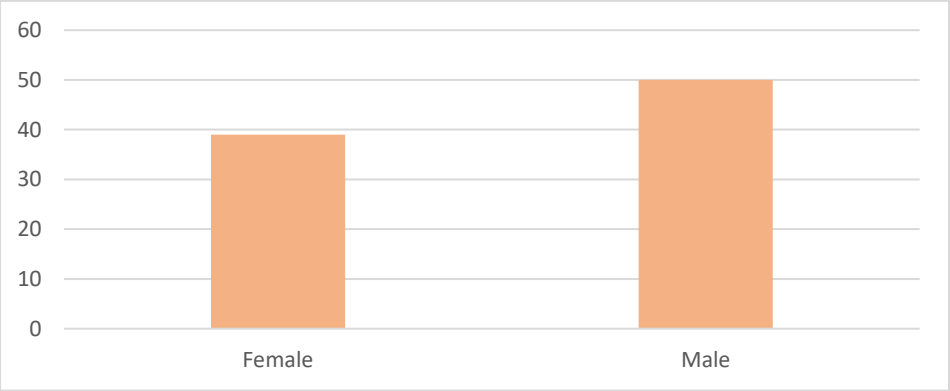

Figure 1. Gender

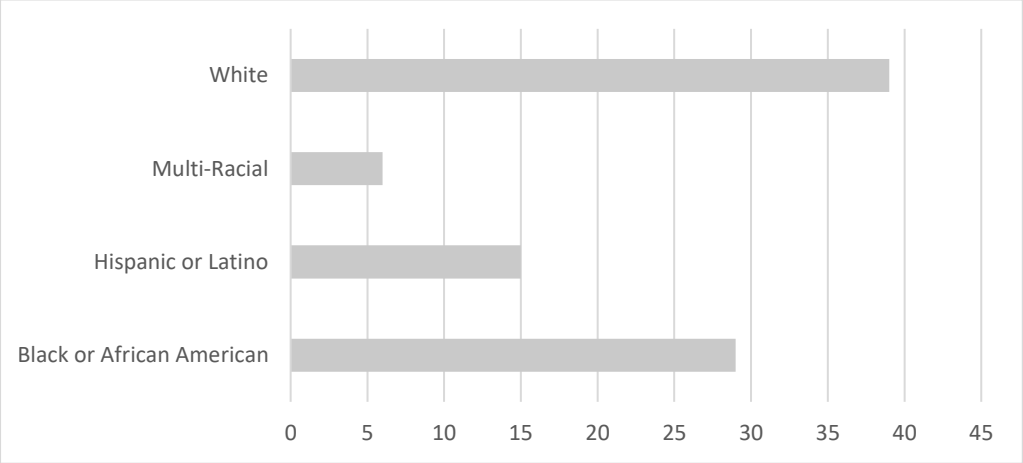

Figure 2. Ethnicity

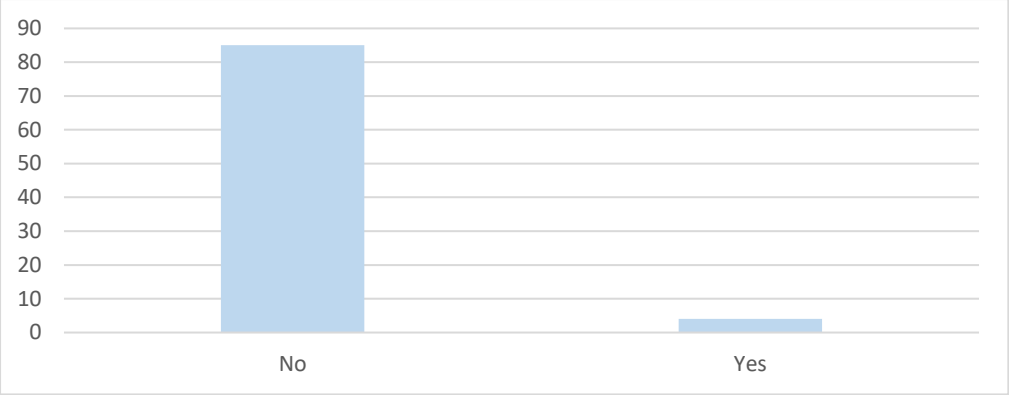

Figure 3. English Language Learners (ELL)

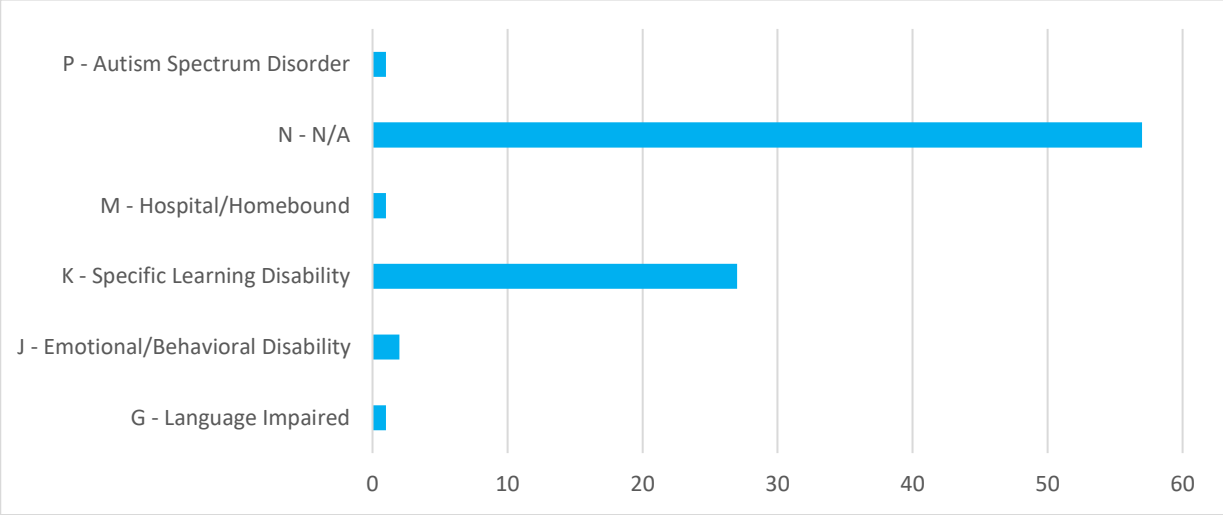

Figure 4. Primary Exceptionality

5.4 Data Collection

The instruments that measure reading achievement included Achieve3000 Level Set scores, seventh-grade state reading test results, and classroom grades. Data collection for this study occurred at multiple time points: three *Achieve3000 Level Set* and *Florida State Reading Exams* (*FAST*) were conducted in August, December, and April; classroom grades were compiled at the end of each quarter. Additionally, demographic data were collected, including gender, ethnicity, English proficiency levels, exceptional status (such as learning disabilities), 504 plan status, absenteeism records, and the number of completed activities, along with their scores in Achieve3000.

5.5 Variables

This study's reading achievement scores were the dependent variable, resulting from Achieve3000 Level Sets, state reading test results, and classroom grades. Gender, ethnicity, English proficiency, absenteeism, exceptional status, and 504 plan status combined, as well as the number of completed activities and their scores, comprised the independent variables. The comprehensive data capture approach guaranteed the comprehensive analysis of the impact of these variables on reading achievement (Creswell & Creswell, 2018).

5.6 Data Analysis Techniques

In this research study, the Achieve 3000 program's impact on seventh-grade students' literacy achievement, the program's effectiveness, and the key factors influencing student performance were uncovered through the detailed examination of the data provided by comprehensive analytical methods (McMillan, 2016). The performance across various assessments during the school year was summarized using descriptive statistics (mean, median, and standard deviation), which opened insights into essential tendencies and variabilities (Field, 2018). In order to understand the distribution of scores across categories, frequency distributions were examined (Gravetter & Wallnau, 2017). A regression analysis was implemented to identify noteworthy reading achievement predictors involving gender, ethnicity, English proficiency, exceptional status (encompassing the 504 Plan), absenteeism, and the number of completed activities. The regression model's overall significance was assessed using the ANOVA test. At the same time, the correlation coefficient (R) and R-squared values were calculated to evaluate the model's explanatory power.

6. Results

6.1 Primary Research Question Results

The main research question was whether participation in the Achieve3000 program affects the reading performance of the seventh-grade students in the intensive reading classes.

Achieve3000 Level Set score. The mean scores of Level Set 1 and Level Set 3 did not differ significantly. Nevertheless, Level Set 2 revealed a slightly lower mean score, as illustrated in Table 1. The median scores of the three-level sets also demonstrated a similar pattern, with the highest score indicated by Level Set 1, the lowest by Level Set 2, and Level Set 3 scored in between. The assessment scores were equally variable, as evidenced by the identical standard deviations. The insignificant decrease in mean and median scores in Level Set 2 indicated that the performance briefly dropped for all students, or the tests evaluated different aspects of reading performance.

Table 1.
Achieve3000 Level Sets Scores

	Level Set 1	**Level Set 2**	**Level Set 3**
Mean	630.62	600.26	631.2
Median	650.00	595.00	610.00
Standard Deviation	210.79	208.88	208.24

According to data resulting from Figure 5, at all three levels, for most skills, between 45 to 51% of students scored below the beginning value; high values were observed very rarely. Only two and three percent of students scored an even 1000-1300. The number of correct responses grew less than the test scores, meaning that most students did not reach high test scores.

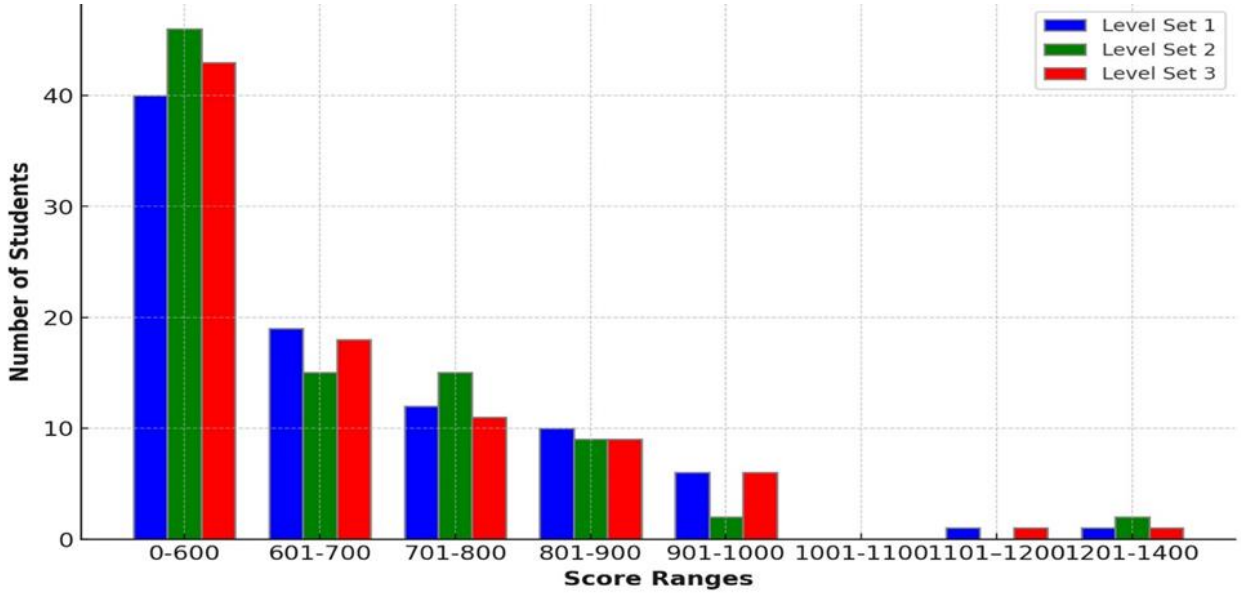

Figure 5. Frequencies for Score Ranges

State reading test results. The mean and median scores, which increased gradually from FAST 1 to FAST 3, were 203.79 and 213.80, and the median was 206.00 and 218.00. This suggests that student performance has improved over time, as demonstrated by Table 2. This tendency indicated that students would likely benefit from continuous instructions and practice. While the average performance was improving, the inconsistency in scores was also increasing, as evidenced by the modest increase in the standard deviations of the scores from FAST 1 to FAST 3 (17.19 to 19.31). This indicated that while students progressed significantly, others might not have developed at the same rate.

Table 2.
State Reading Test Results

	FAST 1	**FAST 2**	**FAST 3**
Mean	203.79	206.89	213.8
Median	206.00	210.00	218.00
Standard Deviation	17.19	18.33	19.31

The study showed that most seventh-grade students started in Level 1, with 77.53% in FAST 1, dropping to 60.67% in FAST 2 and 43.82% in FAST 3 (Figure 6). However, fewer students completed at the lowest level, and many moved from Level 1 to Level 2. The percentage of Level 3 students remained low, but an increase by FAST 3 (11.24%) indicated some proficiency. Despite this, accomplishing more advanced performance levels took much work for most students.

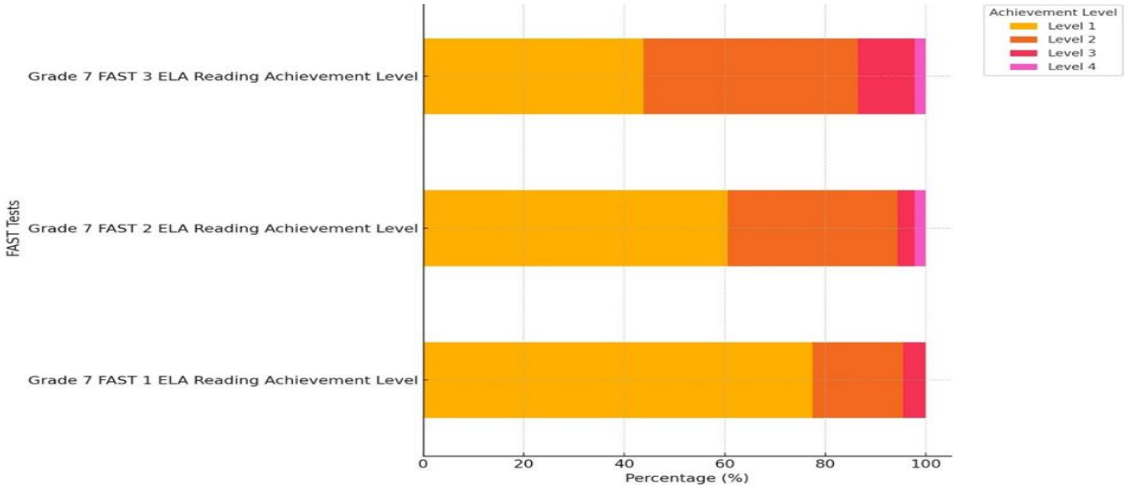

Figure 6. *Percentage Distribution for FAST Results*

Classroom grades. The mean grades of students remained stable throughout the quarters, with scores of 75.25 in Quarter 1, 74.07 in Quarter 2, and 74.56 in Quarter 3 (Table 3). However, there was a marginal decrease to 72.43 in Quarter 4, possibly due to heightened academic challenges or irrelevant elements. The median grades were marginally higher than the means, suggesting a skewed distribution. The increase in median grade in the fourth quarter indicates that although many students faced more difficulty, the majority performed admirably. The standard deviation (SD) increased from Quarter 1 to Quarter 4.

Table 3.
Classroom Grades

	Quarter 1	**Quarter 2**	**Quarter 3**	**Quarter 4**
Mean	75.25	74.07	74.56	72.43
Median	76.00	75.00	77.00	80.00
Standard Deviation	10.02	12.62	14.78	19.69

A noticeable increase in the percentage of failing grades in Quarter 4 may indicate that students faced more difficulties or challenges as the year progressed (Table 4). Specifically, the percentage of students receiving F grades rose from 10% in Quarter 1 to 15% in Quarter 4. The percentage of students earning A grades varied significantly, with a notable low of 20% in Quarter 2 and a high of 30% in Quarter 4. Over time, there has been a trend of decreasing C grades, dropping from 35% in Quarter 1 to 25% in Quarter 4. In the interim, the percentage of students achieving B grades remained relatively steady, around 25% throughout the year. This distribution suggests a polarization in student performance, with more students achieving either high (A and B) or low (D and F) grades rather than middle (B and C) grades.

Table 4.
Grades Percentage Distribution

Grade	Quarter 1	Quarter 2	Quarter 3	Quarter 4
A	25%	20%	22%	30%
B	25%	24%	26%	25%
C	35%	30%	27%	25%
D	5%	11%	10%	5%
F	10%	15%	15%	15%

6.2 Secondary Research Questions Results

The secondary research questions were generated to provide extra insights into the factors influencing reading achievement among seventh-grade students in intensive reading classes. Gender and ethnicity were the primary independent variables in the secondary research questions. The sample had a mean of 0.5, demonstrating an equal proportion of females and males (Table 5). The SD of 0.5 suggested a binary distribution. Similar coding likely resulted in a mean of 0.25 for ethnicity, signifying that 25% of the sample belonged to a specific ethnic group, while an SD of 0.44 indicated some variability.

This was followed by English proficiency and then exceptional status and 504 Plan. Standardized to a 100-point scale, English proficiency had an average mean of 80.2 and SD =8.9, suggesting a variance in student proficiency levels. The variable exception status and 504 plans were merged, generating an average of 0.25. This indicates that 25% of students fell into this category, with an SD of 0.45.

Finally, absenteeism and the number of activities completed on Achieve3000 were the last independent variables for secondary research questions. On average, school absence was 5.3 days, with an SD of 3.2, reflecting variation in attendance (Table 5). On average, students completed 12.8 activities, indicating that the median student engaged in an estimated total of approximately 13 activities on the platform; there was also substantial between-student variability with a standard deviation of nearly half this amount, SD of 4.5.

Table 5.
Mean and Standard Deviation Scores

Variable	M	SD
Gender (coded as 0 and 1)	0.5	0.5
Ethnicity (combined)	0.25	0.44
English Proficiency	80.2	8.9
Exceptional status and 504 (combined)	0.25	0.45
Absenteeism (days)	5.3	3.2
Number of Completed Activities	12.8	4.5

The regression model's ANOVA results indicated that it suggestively clarified the variance in the dependent variable. The regression sum of squares was 820.5 with 7 degrees of freedom, while the residual sum was 270.5 with 93 degrees of freedom, leading to a total sum of squares of 1091 with 100 degrees of freedom (Table 6). The square mean for the regression and residual has values of 117.21 and 2.91, respectively, with an F -statistic value of 41.16, which illustrates the ratio of regression square mean to a residual squared mean. Since the p-value is 0, the

regression model is significant at 1%; thus, sufficient evidence suggests that at least one predictor is related to the dependent.

Table 6.
Regression Model Result

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	820.5	7	117.21	41.16	0
Residual	270.5	93	2.91		
Total	1091	100			

The results of the specified multiple regression model revealed that there was a strong relationship between the predictors and the dependent variable. The correlation coefficient (R)was 0.87, translating to a strong positive relationship (Table 7). Likewise, an R-squared value of 0.75 shows that the independent variables described 75% of the dependent variable's variance. The adjusted R-squared value was 0.74, which accounts for the number of predictors in the model and indicates a slight decrease from the R-squared value. The standard error of the estimate was 4.56, reflecting the average distance that the observed values fell from the regression line.

Table 7.
Model Summary

Metric	Value
Model	Multiple Regression
R	0.87
R-squared	0.75
Adjusted R-squared	0.74
Std. Error of the Estimate	4.56

The research findings showed that gender substantially influenced reading achievement levels in seventh graders, indicated by negative unstandardized and standardized coefficients of -2.5 and -0.25 (Table 8). Reading scores were minimal and statistically non-significant in the case of ethnicity. The number of completed activities and English proficiency positively influenced reading achievement with the same unstandardized coefficients of 0.4 and 1.1. However, the reading achievement was negatively affected by exceptional status and absenteeism, with unstandardized coefficients of -3.5 and -0.7, respectively, and significant p-values of 0.0001 and 0.001. The negative influence of exceptional status and absenteeism was further characterized by their standardized coefficients, which are -0.35 and -0.07.

Table 8.
Model Coefficients

Variable	Unstandardized	Coefficients	Standardized	Coefficients	
	B	Std. Error	Beta	t-value	Sig.
Constant	5	1	0	5	0.0001
Gender	-2.5	0.5	-0.25	-5	0.0001
Ethnicity (combined)	0.75	0.5	0.05	1.5	0.14
English Proficiency	1.1	0.3	0.11	3.67	0
Exceptional Status and 504	-3.5	0.8	-0.35	-4.38	0.0001
Absenteeism	-0.7	0.2	-0.07	-3.5	0.001
Number of Completed Activities	0.4	0.1	0.04	4	0

7. Discussion

The findings of this study provided captivating evidence regarding the effectiveness of the Achieve3000 program in enhancing reading achievement among seventh-grade students in a Title I school.

7.1 Consistency in Level Set Scores

According to the current study, the consistency in Achieve3000 Level Set scores, despite a slight incline in Level Set 2 (Table 1), suggested stable performance across the reading program's assessments. Supporting these findings, the current research has indicated that structured, adaptive, and differentiated reading interventions like Achieve3000 might reliably improve reading achievements. A longitudinal study by Raulerson (2018) found that Achieve3000, a program for students with learning disabilities, maintained consistent reading levels throughout the academic year. Torres (2019) reported stable performance across assessments, indicating the program's ability to maintain steady Level Set scores. However, Torres (2019) also found that some students showed improvement while others did not, indicating the Achieve3000 program's effectiveness variability. This suggests that individual differences and program implementation quality might produce varied results.

7.2 Reading Score Improvement

This study found that the progressive increase in state reading test scores from FAST 1 to FAST 3 indicated an overall improvement in reading achievement (Table 2), suggesting that students benefited from ongoing instruction and practice in the Achieve3000 program, and several studies have demonstrated the agreement with this statement. The results of a randomized controlled study that assessed the effectiveness of the blended learning program Lexia® Power Up Literacy®, similar to the Achieve3000 digital reading intervention program, were published by Hurwitz et al. (2022). The experiment demonstrated that middle school students also significantly improved their reading scores while participating in the program. However, according to McMaster et al. (2021), there is a degree of diversity in how instructors use these programs, and professional development for teachers has led to improved and more consistent

reading results.

7.3 Classroom Grades

The present research found that the program's effect on student success held up throughout Quarter 4 or even improved in some aspects (although there were minor changes and challenges) (Table 3). A similar study conducted by Reed (2023) emphasized the significance of structured reading interventions and consistent support underlying that it was essential for maintaining consistent classroom grades as instructors reported enhanced student performance. In addition, Folsom et al. (2019) discovered that intensive reading programs contributed to the preservation of consistent classroom grades throughout the academic year.

7.4 Gender

Reading achievement scores were significantly negatively associated with gender ($\beta = -0.25$; $t = -5$, $p < 0.0001$) (Table 8). This implies that male students (coded as 1) had lower reading achievement scores than female students (coded as 0). Therefore, research consistently demonstrated gender disparities in literacy achievement. Acar-Erdol and Akin-Arikan (2022) quantitatively analyzed middle school students, revealing that male students had substantially lower reading achievement scores than female students. Similarly, a study was conducted by Nalipay et al. (2020) about the effect of parental emotional contagion on behavior where the impact of this study resulted in females having a higher mean score relative to their peers due to the excessive amounts of support and nurture the parents have shown. Though, the study conducted by Borgonolvi and Han (2021) proved that the gender gap in literacy scoring varies incredibly from one country to another, indicating that the impact of gender on reading achievement may be context-dependent, underscoring the necessity of additional interventions.

7.5 Ethnicity

With a standardized coefficient (β) of 0.05, $t = 1.5$, and $p = 0.14$, ethnicity was not an essential variable in predicting reading achievement scores in this study (Table 8). In other words, ethnicity did not affect reading achievement provided by the Achieve3000 program. No significant links should be a prerequisite for the program's ability to provide reasonable support to overall groups of people and preclude developing the gap in literacy performance (Capin et al., 2024; Cifci & Ünlu, 2020). Hence, the focus should remain on other crucial determinants, such as English proficiency and individual help, to build reading literacy (Basma & Savage, 2023; Daily et al., 2020; Martinez-Lincoln et al., 2021).

7.6 English Proficiency

English proficiency substantially influenced reading achievement scores, as evidenced by a standardized coefficient (β) of 0.11 ($t = 3.67$, $p = 0$) (Table 8). This suggests that reading achievement ratings were positively correlated with English proficiency levels. Cashiola and Potter (2020) verified these findings by investigating the timing of reclassification for English language learners and discovering that reading achievement scores were significantly correlated with higher English proficiency levels. The development of students' English language skills would most likely result in an improvement in their capacity to comprehend and effectively interact with reading content, which would ultimately lead to improved academic reading performance (Capin et al., 2024; Hurwitz et al., 2022; Kim et al., 2017). Because of this, it is essential to adhere to the instructional methods to enhance one's proficiency in the English language and one's ability to read and write effectively (Daily et al.,

2020).

7.7 Exceptional Status and 504 Plan

Exceptional status and 504 plans have a significant standardized coefficient (β) of -0.35, substantially influencing reading performance scores (t = -4.38, p = 0.0001), as shown in Table 8. These findings indicated that kids with exceptional status/504 plans had poorer reading performance scores than their usual classmates. This is likely because these children experience a more comprehensive range of academic, behavioral, and emotional challenges (Basma & Savage, 2023; Martinez-Lincoln et al., 2021). These students may still experience instructional gaps and social-emotional difficulties, which may affect their academic performance despite the accommodations and modifications (İlter, 2023). Consequently, it is essential to involve parents, provide professional development for teachers, develop targeted interventions, and routinely monitor progress to support these students and enhance their literacy outcomes (Calvin & Gray, 2022; Posey-Maddox &Haley-Lock, 2020).

7.8 Absenteeism

Literacy success is also significantly impacted by absenteeism, which is another crucial aspect. According to the findings of this research study, there was a significant negative correlation between absenteeism and reading performance scores (standardized β = 0.07; t-value: -3.5, p <.001), as shown in Table 8. A greater absenteeism rate was related to a lower level of literacy efficiency. Similarly, Cepada and Grepon (2020) underlined that high absenteeism leads to low academic performance, and Ilter (2023) revealed that school absence detrimentally impacted academic achievement.

Nevertheless, Young et al. (2020) discovered that the frequency of absences had little influence on the effect of reading success in caring school settings. This finding highlighted the significance of school and classroom environments in reducing involuntary absenteeism. In addition, Cepada and Grepon (2020) discovered that the level of parental participation in both the home and the school was a significant factor in the absence of students in Northern Mindanao, Philippines; when parents were more active in their children's education, truancy rates dropped, and students performed better. Daily et al. (2020) research investigated whether there is a connection between chronic absenteeism and academic results, as well as future health-related issues among middle school students and found that students with access to healthcare services displayed reduced absenteeism and better academic performance.

7.9 The Number of Completed Activities

The number of completed activities in Achieve3000 was a crucial metric for evaluating student engagement and progress and had a significant positive relationship with reading achievement scores, with a standardized coefficient (β) of 0.04 (t = 4, p = 0) (Table 8). This means finishing more tasks has been linked to improved reading achievement scores and higher growth in reading, with more excellent practice of course exposure contributing to increased skills associated (Achieve3000®, 2018; Borman et al., 2023; Capin et al., 2024). This measure provides a window into the determination of students and, thus, how well programs can retain student engagement with its program (Cannon et al., 2020; Gutierrez de Blume et al., 2021; Hurwitz et al., 2022; Kim et al., 2017; May et al., 2021). Additionally, keeping a record of performed activities helps educators recognize students who may require additional support and adapt interventions to help further academic success (Alzahrani, 2023; D'Agostino et al., 2024; Folsom et al., 2019; Smith et al., 2023).

7.10 Study Limitations

The scope and methodology of this study are subject to limitations, which may further impact generalizability and reliability. Since it centers on just one Title I middle school, the student demographics observed may not be generalizable to other regions or settings. A control group is necessary because the Achieve3000 program cannot be thought of as the only explanation for improvements in reading skills. The results could have been affected by teacher efficacy, tutoring, or at-home parental involvement. The dependency of the gains in literacy skills found by this study on its short-term approach raises questions about whether these improvements are sustainable over a longer term. The equity implications of the Achieve3000 program are evident in its consistent use of technology and external motivators outside peer influences; individual motivation and home environment create large-scale variability in achievement gains; students unable to afford or lack access might see modest benefits from the intervention.

8. Conclusion

The findings implied that the program Achieve3000 highly influenced reading skills in these students, revealing an improvement in comprehension of school activities. Achieve3000 solves the classroom's broad learning needs using personalized, differentiated literacy instruction informed by students' ongoing performance data (Achieve 3000®, 2018). This flexibility is crucial in aiding literacy, as it encourages active learning opportunities, growth of self-efficacy and overall engagement (Cannon et al., 2020). Although these were positive results, this study had limitations. It is suggested that future investigations extend the sample to include diverse control groups. Similarly, continued investigation into the field is required through longitudinal studies to investigate whether improvements are sustainable (Basma & Savage, 2023). Addressing these limitations will help us better understand the program's impact and how it can be improved for use in other educational settings.

To sum up, as seen in the example of Achieve3000, technology integration into reading education has numerous pros for enhancing literacy skills (Cifci & Ünlu, 2020). Operating in personalized, interactive, and adaptive techniques also makes learning easy and aids struggling learners in improving their reading skills efficiently through the program. If future research and practice address the limitations identified here and explore fully what use technology can be in helping to deliver equity of literacy support for all students, more work is needed.

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