

## Multi-Tiered Intervention and the Enhancement of Intensive Reading Skills Among Grade Seven Instructional Level Readers



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**ABSTRACT:** Despite ongoing efforts to improve reading skills, the number of individuals with below-level reading abilities, including adult beginning readers, continues to rise. This study addressed this issue by focusing on instructional-level readers who often lack support in existing interventions. The research was conducted at Tinurik National High School to determine the effectiveness of a multi-tiered intervention in enhancing intensive reading skills: interpreting the meaning of word/s based on the surrounding context, determining main ideas or themes, and making inferences among grade seven instructional level readers. It involved 72 participants, divided equally into controlled and experimental groups, which showed significant improvement for the experimental group but not the controlled group. Pre-test scores were similar between groups, while post-test scores demonstrated an important difference, indicating the effectiveness of multi-tiered intervention. These findings highlight the ongoing challenge of below-level reading abilities and the need for targeted support for instructional-level readers. Education Program Supervisors in English were recommended to propose in-service training that will equip teachers of English with the necessary skills needed to conduct multi-tiered interventions successfully. Future researchers are also suggested to include all the respondents up to Tier III to see if it would lead to better results.

**KEYWORDS:** intensive reading skills, instructional level readers, multi-tiered intervention

### I. INTRODUCTION

Reading has been a persistent issue, and researchers have examined various factors that influence the development of reading skills and preferences (Anggraini et al., 2018). Despite the measures taken to address the issue, the number of below-level readers continues to rise, including adult beginning readers who struggle even after completing elementary school (Stracener, 2020). Tomas et al. (2021) showed that most secondary-level learners were at the frustration level in reading. The perceived causes and associated variables of students' low reading levels include non-mastery of reading elements, presence of learners-at-risk, inappropriate interventions, and lack of a reading culture.

This problem has persisted in the City Schools Division of Tanauan, specifically at Tinurik National High School, where every academic year, 83-90% of admitted grade seven students are labeled as below-level readers upon pre-assessment. The researcher, who has been teaching English for seven years at Tinurik National High School, has observed the increasing number of below-level readers, who are considered adult beginning readers. These instructional-level readers lag behind independent readers as they lack the intensive reading skills needed to develop their reading fluency and comprehension.

Leonard et al. (2023) mentioned that implementing a multi-tiered intervention for K-3 was effective in providing timely and coordinated assistance to students with disabilities or those at risk, preventing or mitigating the impact of early challenges (Leonard et al., 2019; Carada et al., 2022). However, results may vary when respondents are at the secondary level. Brown (2016) also noted that multi-tiered intervention provides targeted support to students struggling academically, especially in reading.

Fien et al. (2021) underscored multi-tiered intervention, also known as a multi-tiered system of support (MTSS), as an educational framework that provides targeted interventions and support to students at different levels of need. Their study views it as a viable model for addressing struggling readers and even word-level reading disabilities, such as dyslexia, in response to new state legislation. One specific MTSS model, Enhanced Core Reading Instruction (ECRI MTSS), has shown promising results in improving students' foundational reading skills.

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The multi-tiered intervention model typically consists of three tiers or levels of support: Tier 1 (universal or core instruction), Tier 2 (targeted or strategic instruction), and Tier 3 (intensive instruction). This model may provide a systematic and targeted approach to address the specific needs of struggling readers to develop their intensive reading skills (Yusan et al., 2022). By offering additional instruction and interventions tailored to their specific needs, the aim is to improve their academic performance and help them catch up with their peers. The model also emphasizes early identification and intervention for at-risk or struggling students, with the goal of preventing academic difficulties from escalating by providing support at the earliest stages.

Thus, the researcher would like to pursue a study entitled "Multi-tiered Intervention and the Enhancement of Intensive Reading Skills among Grade Seven Instructional Level Readers" to determine if multi-tiered intervention could also be effective in developing intensive reading skills of below-level readers at Tinurik National High School, City Schools Division of Tanauan.

### **II. OBJECTIVES OF THE STUDY**

This study aimed to determine the effectiveness of a multi-tiered intervention in enhancing intensive reading skills among grade seven instructional-level readers. Specifically, this study sought to answer the following questions:

1. What are the pre-test and post-test scores of the respondents under the controlled group on the intensive reading skills in terms of:
  - 1.1. interpreting the meaning of word/s based on the surrounding context;
  - 1.2. determining main ideas or themes; and
  - 1.3. making inferences?
2. What are the pre-test and posttest scores of the respondents under the experimental group on the intensive reading skills in terms of:
  - 2.1. interpreting the meaning of word/s based on the surrounding context;
  - 2.2. determining main ideas or themes; and
  - 2.3. making inferences?
3. Is there any significant difference between the pretest and posttest scores of the respondents under the controlled group?
4. Is there any significant difference between the pretest and posttest scores of the respondents under the experimental group?
5. Is there a significant difference between the pretest scores of the respondents under the controlled and experimental group?
6. Is there a significant difference between the posttest scores of the respondents under the controlled and experimental group?

### **III. METHODOLOGY**

The study utilized the experimental method with pretest and posttest. The experimental method is suitable for investigating the possible cause-effect relationship of variables. It represents the most valid approach, enabling researchers to test hypotheses and reach valid conclusions about the relationship between variables. The experiment involved 72 respondents divided into an experimental group that underwent a multi-tiered intervention and a control group that did not. Purposive sampling was used to ensure trustworthy and precise findings, selecting 72 instructional-level readers from grade seven.

During the experiment, the respondents in the experimental group underwent a multi-tiered intervention to develop their intensive reading skills. In contrast, the control group received the usual intervention applied by the school.

The experimental group underwent a three-tiered intervention for the four lessons. In Tier 1, the class received explicit and systematic instruction on context clues, making inferences, and identifying main ideas. Activities in this tier are designed to target the needs of the whole class or a large group of students. Students who demonstrated the least proficiency in these skills after Tier 1 proceeded to Tier 2. In Tier 2, activities become more targeted and individualized. Additional instruction, practice, and interventions are provided to address the specific needs of these students. The activities in Tier 2 were more intensive and offered more opportunities for guided practice, feedback, and support, often including working in pairs or smaller groups.

Finally, students who still did not master the skills moved on to Tier 3, which involved personalized instruction tailored to their specific needs and provided intensive support through one-on-one teaching. This tier involves the most intensive level of support and instruction. Activities in Tier 3 are highly individualized and tailored to the specific needs of each student. One-on-one instruction is often provided, allowing for personalized attention, intensive support, and additional practice.

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On the one hand, the control group received the usual intervention the school applied for the four lessons. This traditional intervention typically followed a one-size-fits-all approach, where the same activities and strategies are used for all students regardless of their needs. The focus is primarily on improving basic reading skills through general instruction and practice. The intervention for the controlled group included whole-class instruction, worksheets, and repetitive drills to develop foundational reading skills.

To determine the effectiveness of the multi-tiered intervention, a test was developed based on three essential intensive reading skills - interpreting word meaning from context, determining main ideas, and making inferences. Experts reviewed and validated the test. The researcher also created four lesson exemplars demonstrating the application of the multi-tiered intervention. The experimental group received the multi-tiered intervention, while the control group received the school's usual intervention. After the experiment, the posttest was administered, and the results were analyzed using statistical measures like frequency, percentage, mean, and t-test to determine the significant difference between pretest and posttest scores. Frequency and Percentage were employed to show the pretest and posttest scores of the respondents. Mean was used to determine the average scores obtained from the group on the pretest and posttest given. A t-test was employed to determine the significant difference between the pretest and posttest scores of the group.

### IV. RESULTS AND DISCUSSION

**Table 1. Pre-test and Posttest Scores of the controlled group in Interpreting the Meaning of Word/s Based on the Surrounding Context**

Score	Pre-test		Posttest		Interpretation
	f	%	F	%	
96-100	0	0	0	0	Mastered
86-85	0	0	0	0	Closely approximating mastery
75-85	11	31	12	33	Moving towards mastery
50-74	25	69	24	67	Average mastery
15-49	0	0	0	0	Low mastery
5-14	0	0	0	0	Very low mastery
0-4	0	0	0	0	Absolutely no mastery

The data above indicates that in the controlled group, before the intervention, the majority of participants had a moderate ability to interpret words within the surrounding context since 25 individuals, or 69% of the respondents, were considered to be moving toward mastery, which means that they are beginning to grasp nuances and contextual variations in word usage. In comparison, 11 individuals or 31% of the respondents fell under average mastery or those who have limited understanding of word relationships and their influence on meaning. However, none of the participants reached mastery levels or closely approximated mastery. After the intervention, there was a slight improvement in the control group's performance. While no participant achieved mastery or closely approximated mastery, the proportion of participants showing progress toward mastery increased slightly to 33%. These individuals demonstrated the ability to identify contextual cues and make reasonable inferences, although they faced challenges with certain words or complex contexts. The "Average mastery" category decreased slightly to 67%, indicating a slight enhancement in the controlled group's ability to interpret word meanings from context. Although results showed a slight improvement in the post-test scores, the intervention made to the controlled group was still not able to address the specific and varied needs of the instructional level readers in terms of developing their ability to interpret words within the surrounding context since it used the usual reading intervention the school applies.

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**Table 2. Pre-test and Posttest Scores of the Controlled Group in Determining Main Ideas or Themes**

Score	Pre-test		Posttest		Interpretation
	F	%	F	%	
96-100	0	0	0	0	Mastered
86-85	0	0	0	0	Closely approximating mastery
75-85	24	67	28	78	Moving towards mastery
50-74	12	33	8	22	Average mastery
15-49	0	0	0	0	Low mastery
5-14	0	0	0	0	Very low mastery
0-4	0	0	0	0	Absolutely no mastery

This means that before the instruction, they were developing their skills in analyzing and synthesizing information from the surrounding context. Another 33% scored within the 50-74 range, categorized as "Average mastery." Students at this level have a basic ability to identify main ideas or themes to some extent. Likewise, there were no participants in the very low or no mastery ranges, nor the mastery or closely approximating mastery ranges.

In the post-test, there is an improvement in the participants' performance. 78% of the group has moved into the 75-85 range, indicating that more individuals are now "Moving towards mastery." These readers are progressing in determining the main ideas or themes and can identify the main concepts or general messages in a text. However, they may still require some support or guidance to refine their skills and improve accuracy. Additionally, there is an emergence of 22% in the 50-74 range, classified under "Average mastery." These readers have a moderate ability to determine main ideas or themes and can identify some key concepts or general messages. However, they still struggle with texts with multiple themes or complex organizational structures and would benefit from targeted instruction and practice to enhance their proficiency.

**Table 3. Pre-test and Posttest Scores of the Controlled Group in Making Inferences**

Score	Pre-test		Posttest		Interpretation
	f	%	f	%	
96-100	0	0	0	0	Mastered
86-85	0	0	0	0	Closely approximating mastery
75-85	17	47	18	50	Moving towards mastery
50-74	19	53	18	50	Average mastery
15-49	0	0	0	0	Low mastery
5-14	0	0	0	0	Very low mastery
0-4	0	0	0	0	Absolutely no mastery

In the pre-test, the abilities of the group were split almost equally between those "Moving towards mastery" (47%) and those with "Average mastery" (53%). There were no individuals in the very low skill ranges or high mastery ranges, indicating that the group had a foundational understanding of inferencing from the beginning. In the post-test, there was a noticeable improvement. The group's abilities became more balanced, with equal proportions (50% each) in the "Moving towards mastery" or those who can identify some implicit information and draw reasonable conclusions, although they still encounter challenges with more complex texts or abstract concepts and "Average mastery" or those who can make some reasonable connections and draw basic conclusions based on implicit information in the text. However, they still struggle with more subtle or nuanced inferences, and their interpretations occasionally be incomplete or less accurate.

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**Table 4. Pre-test and Posttest Scores of the Experimental Group in Interpreting the Meaning of Word/s Based on the Surrounding Context**

Score	Pre-test		Posttest		Interpretation
	f	%	f	%	
96-100	0	0	0	0	Mastered
86-85	0	0	0	0	Closely approximating mastery
75-85	13	36	35	97	Moving towards mastery
50-74	23	64	1	3	Average mastery
15-49	0	0	0	0	Low mastery
5-14	0	0	0	0	Very low mastery
0-4	0	0	0	0	Absolutely no mastery

Only one participant remained in the "Average mastery" category in the post-test, suggesting that most participants made progress. No individuals were found in the upper two or lower three categories, indicating that the intervention successfully moved readers from lower skill levels towards mastery but did not result in any participants achieving the highest levels of mastery. Readers at the "Average mastery" level have a moderate ability to interpret word meanings based on the surrounding context. They can make some accurate inferences but struggle with words that have multiple possible meanings or complex sentence structures. They would benefit from targeted instruction and practice to enhance their proficiency.

Overall, the shift in distribution from the pre-test to the post-test is considerable and indicates a successful intervention of the intensive reading skill. It reveals an overall enhancement in the group's ability to deduce word meanings from context and a notable shift towards a more uniform skill level among the participants.

**Table 5. Pre-test and Posttest Scores of the Experimental Group in Determining Main Ideas or Themes**

Score	Pre-test		Posttest		Interpretation
	f	%	F	%	
96-100	0	0	0	0	Mastered
86-85	2	6	27	75	Closely approximating mastery
75-85	24	67	9	25	Moving towards mastery
50-74	10	28	0	0	Average mastery
15-49	0	0	0	0	Low mastery
5-14	0	0	0	0	Very low mastery
0-4	0	0	0	0	Absolutely no mastery

In the pre-test, most participants (67%) were "Moving towards mastery," scoring between 75-85. This means that most respondents can identify the main ideas or themes with reasonable accuracy before the intervention. A portion of 28% or 10 individuals fell into the "Average mastery" category with scores between 50-74, which shows that before the intervention, they had limited skills in analyzing and synthesizing information from the surrounding context, while a small fraction (6%) or 2 individuals were "Closely approximating mastery," scoring between 86-95. Students at this level can almost effectively identify the main ideas or themes. Notably, there were no participants in the "Mastered" category (96-100), nor were there any in the very low mastery ranges (0-49).

Likewise, the post-test results exhibit improvement. A vast majority of 75% or 27 individuals elevated their skill to determine main ideas or themes to "Closely approximating mastery," This means that after the multi-tiered intervention, they improved their critical thinking and inference skills to grasp central concepts across reading texts. Moreover, 25% or 9 individuals remained

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"Moving towards mastery" or those who closely approach mastery in determining main ideas or themes. After the intervention, they now exhibit high accuracy in identifying key concepts of central messages, although they may occasionally encounter challenges with more complex or nuanced texts. Remarkably, no participants are left in the "Average mastery" range, which indicates that all individuals previously in this category improved their scores to at least "Moving towards mastery." This suggests a substantial increase in participants nearing full mastery of the skill. No individuals achieved "Mastered" status in the post-test, or those who can extract the central concepts or overarching messages from a text with ease, and their interpretations align closely with the author's intended meaning. There were still no participants in the lowest skill levels, which suggests a baseline competency in determining main ideas or themes was present even before the intervention.

**Table 6. Pre-test and Posttest Scores of the Experimental Group in Making Inferences**

Score	Pre-test		Posttest		Interpretation
	F	%	f	%	
96-100	0	0	0	0	Mastered
86-85	0	0	31	86	Closely approximating mastery
75-85	19	53	5	14	Moving towards mastery
50-74	17	47	0	0	Average mastery
15-49	0	0	0	0	Low mastery
5-14	0	0	0	0	Very low mastery
0-4	0	0	0	0	Absolutely no mastery

In the pre-test, most participants, 53% (19 individuals), were assessed as "Moving towards mastery," indicating a moderate proficiency in making inferences. A portion, 47% (17 individuals), demonstrated "Average mastery," suggesting a basic but incomplete ability to infer meaning when reading. Notably, the post-test results exhibit an improvement, with 86% (31 individuals) now classified as "Closely approximating mastery." Readers at this level closely approach mastery in making inferences. They show a strong ability to draw reasonable and logical conclusions based on implicit information in the text. While their inferences may occasionally require further clarification or refinement, they generally demonstrate high accuracy and understanding. This denotes a significant enhancement in the ability to make inferences, potentially attributable to the effectiveness of the multi-tiered intervention employed. Additionally, 14% (5 individuals) of the participants are still "Moving towards mastery," but no participants remain at the "Average mastery" level. Readers who fell under moving towards mastery are making progress in making inferences. They can identify some implicit information and draw reasonable conclusions, although they may encounter challenges with more complex texts or abstract concepts. They will likely improve their ability to make accurate inferences with further practice and guidance.

The shift from "Average mastery" to "closely approximating mastery" is a powerful indicator of the multi-tiered intervention's success in developing inferential reading skills. The improvement seen in the post-test underlines the potential of targeted educational interventions to elevate readers' inferential comprehension.

**Table 7. Test of Difference between Pre-test and Posttest Scores of the Controlled Group**

INTENSIVE READING SKILLS	Pre-test		Post-test		T	p
	Mean	SD	Mean	SD		
Interpreting the meaning of word/s based on the surrounding text	70.42	4.37	70.83	3.87	-.723	.475
Determining main ideas or themes	75.42	4.98	76.25	5.12	-1.357	.183
Making Inferences	72.22	4.22	72.78	3.47	-.849	.401

The p-values for the intensive reading skills, such as interpreting the meaning of words based on the surrounding text, determining main ideas or themes, and making inferences, were reported as 0.475, 0.183, and 0.401, respectively, which are

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greater than the alpha when tested at 0.05 level of significance. This means that the observed differences in the pre-test and post-test scores of the controlled group are not statistically significant. This implies that although there were instructional-level readers who could improve their intensive reading skills under the control group, the intervention employed cannot be considered effective.

**Table 8. Test of Difference between Pre-test and Posttest Scores of the Experimental Group**

INTENSIVE READING SKILLS	Pre-test		Post-test		t	p
	Mean	SD	Mean	SD		
Interpreting the meaning of word/s based on the surrounding text	71.25	5.53	86.39	3.71	-17.216	.000
Determining main ideas or themes	76.53	5.83	89.72	3.37	-14.073	.000
Making Inferences	72.78	4.70	86.25	3.85	-16.021	.000

This result gave an interpretation that the test difference between the results of the pretest and posttest scores of the experimental group is significant. This implies that the multi-tiered intervention employed under the experimental group effectively enhances intensive reading skills among instructional-level readers as this intervention recognizes that students have diverse learning needs and provides targeted support at different levels of intensity. Therefore, the null hypothesis, which stated that there was no significant difference between the pre-test and post-test scores of the experimental group, was Rejected.

**Table 9. Test of Difference between Pre-test Scores of the Controlled Group and Experimental Group**

INTENSIVE READING SKILLS	Pre-test A		Pre-test B		T	P
	Mean	SD	Mean	SD		
Interpreting the meaning of word/s based on the surrounding text	70.42	4.37	71.25	5.53	-.613	.544
Determining main ideas or themes	75.42	4.98	76.53	5.83	-.840	.407
Making Inferences	72.22	4.22	72.78	4.70	-.480	.634

This means the observed differences in the pre-test scores between the controlled and experimental groups are not statistically significant. The lack of statistical significance across all three skills suggests that before any intervention, both groups performed similarly regarding their intensive reading skills. The similarities in performance indicated by the mean scores and supported by the significance values imply that any subsequent changes observed post-intervention would not be due to initial differences in skill levels between the groups. Therefore, the null hypothesis, which states no significant difference between the pre-test and post-test scores, is not rejected.

**Table 10. Test of Difference between Posttest Scores of the Controlled Group and Experimental Group**

INTENSIVE READING SKILLS	Post-test A		Post-test B		t	P
	Mean	SD	Mean	SD		
Interpreting the meaning of word/s based on the surrounding text	70.83	3.87	86.39	3.71	-19.064	.000
Determining main ideas or themes	76.25	5.12	89.72	3.37	-13.059	.000
Making Inferences	72.78	3.47	86.25	3.85	-15.191	.000

The data strongly suggests that the multi-tiered intervention implemented in the experimental group was effective in significantly enhancing their intensive reading skills compared to the controlled group since the intervention consists of three tiers: universal instruction for all students (Tier 1), targeted interventions for students who need additional support (Tier 2), and intensive interventions for students with significant reading difficulties (Tier 3) it ensured that students receive increasingly intensive instruction based on their response to previous interventions. It allows for a systematic and strategic progression of support to match students' needs. Thus, the uniformity of the effect across different reading skills and the high levels of statistical significance suggest that the intervention was helpful and effective in enhancing intensive reading skills among instructional-level



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readers. Therefore, the null hypothesis that no significant difference existed between the control and experimental group's post-test scores was rejected.

### V. CONCLUSION AND RECOMMENDATION

The data strongly suggests that the multi-tiered intervention implemented in the experimental group significantly enhanced their intensive reading skills compared to the control group. The uniformity of the effect across different reading skills and the high levels of statistical significance suggest that the intervention was helpful and effective in enhancing intensive reading skills among instructional-level readers. In-service training and Learning Action Cell (LAC) sessions on multi-tiered intervention strategies are recommended for English education program supervisors and master teachers to equip reading teachers with the skills needed for targeted and individualized instruction. DepEd Division offices are also encouraged to allocate adequate resources, including instructional materials, technology tools, professional development, and support staff, to facilitate the implementation of multi-tiered interventions and enhance intensive reading skills. Future researchers are encouraged to expand on the current study by including all respondents, regardless of their reading proficiency levels, to gain a more comprehensive understanding of the effectiveness of multi-tiered interventions.

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