



READING COMPREHENSION LEVELS OF KEY STAGE 1 LEARNERS USING THE MULTI-SENSORY APPROACH: BASIS FOR INSTRUCTIONAL SUPERVISION PLAN

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ABSTRACT

This study determines the significant relationship between the extent of using the multi-sensory approach in teaching and the reading comprehension levels of Key Stage 1 learners at Altavista Elementary School, Ormoc City District I, Ormoc City Division. Utilizing a descriptive-correlational research design, the study involved 10 teachers and 77 Key Stage 1 learners as respondents. A researcher-adapted questionnaire based on Birsh & Carreker (2018) – Multisensory Teaching of Basic Language Skills was used to assess teachers' extent of using visual, auditory, kinesthetic, and tactile strategies in reading instruction, while the learners' reading performance was determined through the Comprehensive Rapid Learning Assessment (CRLA) results. Findings revealed that teachers implemented the multi-sensory approach only to a moderate extent, with an overall weighted mean of 2.95 (Sometimes), suggesting occasional use of sensory-based teaching techniques. Meanwhile, the reading performance results showed that most learners were still in the Transitioning Reader (41.6%) and Low Emerging Reader (41.6%) categories, and only 3.9% were reading at grade level. Statistical analysis using Pearson's r ($r = 0.432$, $p = 0.000$) revealed a moderate positive and significant relationship between teachers' use of the multi-sensory approach and learners' reading performance, leading to the rejection of the null hypothesis. This indicates that multi-sensory strategies—integrating visual, auditory, kinesthetic, and tactile elements—contribute

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positively to improving learners' reading comprehension and engagement. Therefore, the study concludes that consistent and intentional use of the multi-sensory approach can enhance literacy outcomes and bridge comprehension gaps among young learners. Based on these findings, an instructional supervision plan was proposed to strengthen teachers' capacity in implementing multi-sensory strategies effectively in reading instruction.

Keywords: *Reading Comprehension Levels, Key Stage 1 Learners, Multi-Sensory Approach, Instructional Supervision Plan*

INTRODUCTION

One of the most important challenges that teachers and school leaders face is how to address the literacy gap due to non-proficient in reading comprehension skills. Teachers have to implement different reading strategies to influence learning most especially on comprehension skills. While learners meet academic milestones at different paces, integrating literacy teaching strategies and approaches in the classroom can help prepare as many learners as possible for reading readiness. And the recent developments in reading and literacy curriculum suggest multisensory learning is one of the most effective approach for doing so.

Multisensory activities are based in whole brain learning, which is the belief that the best way to teach concepts is by involving multiple areas in the brain. Activities provided will involve all or but not many senses in learning to read. By adding auditory or visual components to reading assignments, like illustrations or online activities, teachers can help learners develop stronger literacy skills (Minshe, 2025).

In line with the MATATAG agenda of the former secretary of Department of Education that learners must be provided with alternative learning intervention to address the problems on literacy among Filipino learners. With the implementation of the Enhanced K to 10 Curriculum of the Department of Education, providing reading intervention activities is deemed

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necessary and one of the interventions that the researcher formulated in teaching comprehension skills using the multi-sensory approach.

In teaching reading, many teachers only focus on the product of comprehension such as students' ability in answering the comprehension questions and ignore the process to make the students comprehend the text such as teaching vocabulary, fluency, and the text level (genre) (Álvarez-cañizo et al., 2020; Nurdianingsih, 2021b; Rochman, 2018). In addition, reading is an activity that involves the information got by the readers to communicate with the author for gaining the information (Ceyhan & Yyldyz, 2020; Nurdianingsih, 2021b).

Which means that when reading a text, a reader is also communicating the idea got, whether it is appropriate with the author idea or not. In order to get the similar perception or similar understanding between the reader and the author, teacher should also teach the reading aspects. Some of the reading aspects are pronunciation, the vocabulary, and the comprehension (Nurdianingsih, 2021b). Furthermore, when studying reading students have to pay attention to the fluency. Fluency consists of accuracy, automaticity, and prosody (Duke et al., 2021). Therefore, in teaching reading teacher should also teach the vocabulary, fluency, and comprehension. And, to teach those aspects, teacher should involve the proper strategy.

Furthermore, reading comprehension is to make sense from reading by using eyes then proceed it in mind to get the information (Ceyhan & Yýldýz, 2020). That is why for learners, understanding the text from the meaning of the words is important, as when they do not understand the meaning of the words they cannot reach the text at all.

Having learners with difficulties in understanding the text read is a challenge on the part of the teacher. Because when learners find difficulty in comprehension skills, they will also experience difficulty in learning the competencies in a certain learning area. Thinking of strategies to address this need is a priority for a need to learn to read especially during key stage 1 of the learners. In this regard, the researcher formulated the intervention of

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integrating multisensory approaches in teaching reading in the hope that through this intervention, reading performance of the learners will improve.

The existing literature in the Philippines' primary education system regarding multisensory approaches for non-readers reveals a notable knowledge gap, lacking specific research on non-readers despite evidence supporting these methods for special education needs students and struggling readers (Zairin, 2023; Pocaan et al., 2022).

Reading has a holistic impact on individuals, influencing their social-emotional learning (Aerila, 2021), and emotional development (Batini et al., 2020). It also plays a crucial role in the teaching and learning process, with a need for comprehensive and integrated reading assessment (Rini, 2021). In the realm of primary education, the current application of multisensory approaches to support non-readers encompasses a wide array of strategies and interventions. Adapon and Mangila (2020) found that the 'Care for the Non-Readers Program,' which integrates multisensory techniques, significantly improved reading performance. Further research by Siti Zairin and Mohd Norazmi Nordin (2023) also confirmed the effectiveness of multisensory methods in enhancing reading skills, especially among learners with special educational needs. Bernardo et al. (2021) highlighted the importance of addressing non-cognitive factors such as home environment and classroom experiences in combating low reading proficiency. Similarly, Pocaan et al. (2022) emphasized the value of strategic reading interventions, including those that incorporate multisensory components, to support struggling readers. Despite the encouraging results from existing studies, there remains a pressing need for further research and development in this field.

This study determines the significant relationship between the extent of using multisensory approach in teaching and reading comprehension levels of key stage 1 learners of Altavista Elementary School, Ormoc City District I, Ormoc City Division. The findings of the study were basis for the proposed instructional supervision plan.

Further, it sought to answer the following sub-problems:

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1. What is the extent of using multi-sensory approach in teaching key stage 1 learners?
 2. What is the level of reading performance of key stage 1 learners?
 3. Is there a significant relationship between the extent of using multi-sensory approach in teaching and level of reading performance of key stage 1 learners?
 4. What instructional supervision plan can be proposed based on the findings of this study?

METHODOLOGY

Design. This study adopted a descriptive-correlational research design to determine the significant relationship between the extent of using multi-sensory approach in teaching and reading comprehension levels of key stage 1 learners. This study is descriptive because it describes the variables-extent of using multi-sensory approach in teaching and reading comprehension levels of key stage 1 learners. Further, this is also correlational because it finds the relationship between the dependent and independent variables. This study was conducted in Alta Vista Elementary School, one of the schools of Ormoc City District I, Schools Division of Ormoc City. The ten (10) teachers and seventy-seven (77) key stage 1 learners enrolled in the said locale were involved in the study. The instrument used in this study is a survey which describes the extent of using multi-sensory approach in teaching reading comprehension skills. It is composed of 30-item questionnaire taken from the study of Birsh & Carreker (2018) on "Multisensory Teaching of Basic Language Skills. The survey describes the teaching strategies on visual, auditory, kinesthetic, tactile with integration of these techniques and perceived impact on learners. This can be answered using a Five-Point Likert Scale where 5 means Always, 4 means Often, 3 means Sometimes, 2 means Rarely and 1 means Never. Further to determine the reading comprehension levels of the learners, the researcher gathered the result of the Comprehensive Rapid Learning Assessment (CRLA) recently conducted by the researcher. The result described the reading comprehension levels of the learners.

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Sampling. The ten (10) teachers and seventy-seven (77) key stage 1 learners were involved in the study. Complete enumeration was employed in choosing the respondents of the study.

Research Procedure. Upon securing a research permit, data gathering was initiated. Application letters for study permits were personally submitted to concerned offices. A request letter was first submitted to the Schools Division Superintendent for approval to gather data from targeted respondents. After securing the approval of SDS, letters of permission were also submitted to the Public Schools District Supervisor and School Principals of the identified schools in the district. After getting the approvals, the researcher conducted data-gathering activities. An orientation was also held for the respondents, and their agreement through permits was to participate in the research. Then, survey questionnaires were handed out, and the researcher accompanied the respondents as they filled out the questionnaires. Researcher gathered the result of the Comprehensive Rapid Learning Assessment (CRLA) conducted to the key stage 1. Once the survey was done, data were gathered, counted, and handed over for statistical processing.

Ethical Issues. The researcher obtained the necessary written permission from the authorities to conduct the study. While developing and checking the survey used in the study, the use of offending, discriminatory, or other undesirable terminology was eschewed. The names of the respondents and other personal information were not included in this study to ensure confidentiality. The respondents were also voluntarily participating. Orientation was done for the respondents. During orientation, concerns and issues were clarified, and consent to be part of the study was signed. The researcher-maintained objectivity in discussing and analyzing the results. All authors whose works were cited in this study were correctly quoted and were acknowledged in the reference. Keeping of responses from the respondents were given to the researcher and kept under her care.

Treatment of Data. The quantitative responses underwent tallying and tabulation. Statistical treatment involved using specific tools: Simple Percentage and Weighted Mean assessed the extent of using multi-sensory approach in teaching and level of reading performance of key

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stage 1 learners based on CRLA. Pearson r was utilized to ascertain the significant relationship between the dependent and independent variables.

RESULTS AND DISCUSSION

Table 1

Extent of Using Multi-Sensory Approach in Teaching Reading Comprehension Skills

Dimension	Statement	Weighted Mean	Interpretation
A. Visual Strategies	1. Use pictures, graphic organizers, and story maps to support comprehension.	3.00	Sometimes
	2. Incorporate color-coding to highlight key parts of a text (e.g., main idea, details).	3.00	Sometimes
	3. Display anchor charts to reinforce reading strategies and vocabulary.	3.00	Sometimes
	4. Provide learners with visual cues or illustrations to aid in understanding the story.	3.00	Sometimes
	5. Use videos or visual storytelling tools when introducing reading materials.	3.00	Sometimes
Average Weighted Mean for Dimension A		3.00	Sometimes
B. Auditory Strategies	6. Read texts aloud to model proper phrasing, tone, and comprehension.	3.00	Sometimes
	7. Encourage learners to listen to audiobooks to enhance understanding.	3.00	Sometimes
	8. Use choral reading or echo reading during guided reading sessions.	3.00	Sometimes
	9. Integrate music or songs related to story content or vocabulary.	3.00	Sometimes
	10. Engage learners in oral discussions about texts they read.	3.00	Sometimes
Average Weighted Mean for Dimension B		3.00	Sometimes

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Dimension	Statement	Weighted Mean	Interpretation
C. Kinesthetic Strategies	11. Let learners act out parts of a story to support comprehension.	2.67	Sometimes
	12. Integrate role-playing or dramatization in reading activities.	2.67	Sometimes
	13. Use hands-on manipulatives (e.g., sentence strips, word cards) during reading lessons.	3.00	Sometimes
	14. Incorporate movement-based games to reinforce vocabulary and comprehension.	3.00	Sometimes
	15. Use finger tracking or tapping techniques when learners read texts aloud.	3.00	Sometimes
Average Weighted Mean for Dimension C		2.87	Sometimes
D. Tactile Strategies	16. Use textured letter cards or sandpaper letters for word decoding.	2.67	Sometimes
	17. Include tracing or drawing activities to illustrate story events.	2.67	Sometimes
	18. Provide opportunities for learners to use clay or craft materials to build story elements.	2.67	Sometimes
	19. Include cut-and-paste worksheets for sequencing events in a story.	3.00	Sometimes
	20. Engage learners in tactile matching activities (e.g., word-picture pairs).	3.00	Sometimes
Average Weighted Mean for Dimension D		2.80	Sometimes
E. Integration with Multi-sensory Techniques	21. Plan reading activities that combine visual, auditory, kinesthetic, and tactile elements.	3.00	Sometimes
	22. Differentiate reading materials based on learners' sensory learning styles.	3.00	Sometimes
	23. Adapt comprehension strategies using a combination of senses to address learner difficulties.	3.00	Sometimes
	24. Regularly assess the impact of multi-sensory instruction on learners' reading performance.	3.00	Sometimes
	25. Use multi-sensory techniques specifically for struggling readers or learners with reading difficulties.	3.00	Sometimes

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Dimension	Statement	Weighted Mean	Interpretation
Average Weighted Mean for Dimension E		3.00	Sometimes
F. Perceived Impact on Learners	26. The learners show improved comprehension after using multi-sensory strategies.	3.00	Sometimes
	27. Learners are more engaged when reading activities include sensory elements.	3.00	Sometimes
	28. The learners can better recall story details when multi-sensory strategies are used.	3.00	Sometimes
	29. Learners demonstrate more confidence in reading comprehension tasks with these methods.	3.00	Sometimes
	30. The multi-sensory approach has helped bridge learning gaps among my students.	3.00	Sometimes
Average Weighted Mean for Dimension F		3.00	Sometimes
Overall Weighted Mean		2.95	Sometimes

Likert Scale Range Legend:

RANGE. INTERPRETATION

- 4.21 – 5.00 → Always
- 3.41 – 4.20 → Frequently
- 2.61 – 3.40 → Sometimes
- 1.81 – 2.60 → Rarely
- 1.00 – 1.80 → Never

Table 1 presents the extent of using a multi-sensory approach in teaching reading comprehension skills as assessed across six dimensions: *visual, auditory, kinesthetic, tactile strategies, integration with multi-sensory techniques*, and *perceived impact on learners*. The data reveal an overall weighted mean of 2.95, interpreted as “Sometimes,” indicating that teachers occasionally employ multi-sensory strategies in their reading instruction. Among the dimensions, visual strategies and auditory strategies both obtained an average weighted mean of 3.00 (Sometimes), suggesting that teachers occasionally use visual aids such as pictures, videos, and charts, as well as auditory tools like read-aloud sessions and discussions, to enhance learners’ comprehension. Similarly, integration with multi-sensory

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techniques and perceived impact on learners also scored 3.00 (Sometimes), implying that while teachers recognize the value of combining sensory elements, their consistent application remains limited. Kinesthetic strategies recorded a slightly lower mean of 2.87 (Sometimes), while tactile strategies obtained the lowest mean of 2.80 (Sometimes), indicating that hands-on and movement-based activities are less frequently incorporated in reading lessons. Overall, the findings suggest that although teachers are aware of the benefits of multi-sensory approaches, their implementation in teaching reading comprehension is only occasional. This highlights the need for professional development and instructional support to encourage more frequent and intentional use of multi-sensory methods to enhance student engagement and comprehension outcomes.

Table 2
Reading Performance of Key Stage 1 Learners

Reading Level	Total Learners	Percentage (%)
Reading at Grade Level	3	3.9%
Transitioning Reader	32	41.6%
Developing Reader	10	13.0%
High Emerging Reader	15	19.5%
Low Emerging Reader	32	41.6%
Total	77	100%

Table 2 presents the reading performance of Key Stage 1 learners categorized according to their reading levels. The data reveal that most of the learners fall under the Transitioning Reader and Low Emerging Reader levels, each comprising 32 learners or 41.6% of the total respondents. This indicates that a large proportion of learners are still

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developing foundational reading skills and have not yet reached full grade-level proficiency. Meanwhile, 15 learners (19.5%) were identified as High Emerging Readers, showing progress but still below mastery, and 10 learners (13.0%) were classified as Developing Readers, demonstrating moderate comprehension of texts. Only 3 learners (3.9%) were found to be Reading at Grade Level, indicating that very few have achieved the expected reading proficiency for their grade. Overall, the results highlight that most Key Stage 1 learners are still in the early to intermediate stages of reading development, suggesting the need for targeted interventions and enhanced instructional strategies—such as the consistent use of multi-sensory approaches—to improve reading comprehension and fluency among young learners.

Table 3

Test of Relationship Between Teachers' Use of Multi-Sensory Approach and Reading Performance of Key Stage 1 Learners

Variables Correlated	Computed r-value	p-value	Decision on Ho	Interpretation
Overall Multi-sensory Approach vs. Reading Performance	0.432	0.000	Reject Ho	Significant Relationship (Moderate Positive Correlation)

Table 3 presents the test of the relationship between teachers' use of a multi-sensory approach and the reading performance of Key Stage 1 learners. The computed r-value of 0.432 indicates a moderate positive correlation between the two variables, suggesting that learners' reading performance tends to improve as teachers more frequently utilize multi-sensory strategies in reading instruction. Furthermore, the computed p-value of 0.000, which is lower than the 0.05 level of significance, leads to the rejection of the null hypothesis (Ho). This confirms that there is a significant relationship between the use of multi-sensory

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approaches and learners' reading performance. The result implies that employing multi-sensory teaching techniques—such as integrating visual, auditory, kinesthetic, and tactile elements—can positively influence learners' reading comprehension and engagement. Therefore, consistent implementation of multi-sensory strategies can be an effective instructional method to enhance literacy development and bridge reading performance gaps among young learners.

Conclusion

The findings of the study revealed that the use of the multi-sensory approach in teaching reading comprehension skills was implemented by teachers only to a moderate extent, with an overall weighted mean of 2.95 (Sometimes), indicating that sensory-based instructional strategies were occasionally utilized in reading lessons. The analysis of learners' reading performance showed that most of the Key Stage 1 learners were still at the Transitioning Reader (41.6%) and Low Emerging Reader (41.6%) levels, while only 3.9% were reading at grade level, suggesting that many learners had not yet achieved the expected reading proficiency. More importantly, the statistical test revealed a moderate positive and significant relationship ($r = 0.432$, $p = 0.000$) between the teachers' use of multi-sensory approaches and learners' reading performance, leading to the rejection of the null hypothesis. This indicates that the application of multi-sensory strategies—combining visual, auditory, kinesthetic, and tactile techniques—positively influences learners' reading comprehension and skill development. Therefore, the study concludes that consistent and purposeful integration of multi-sensory approaches in reading instruction can significantly enhance literacy outcomes, engagement, and comprehension among Key Stage 1 learners.

Recommendations

1. Teachers should intensify the use of multi-sensory approaches in reading instruction by regularly integrating visual, auditory, kinesthetic, and tactile strategies to address diverse learning styles and enhance comprehension.

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2. Training and professional development programs should be conducted to equip teachers with the necessary knowledge and skills to effectively design and implement multi-sensory reading activities.

3. School administrators should provide adequate instructional materials and resources such as manipulatives, visual aids, audiobooks, and interactive reading tools to support the consistent application of multi-sensory teaching.

4. Encourage teachers to incorporate movement-based and hands-on learning activities in reading sessions to make learning more engaging and accessible for struggling readers.

5. Develop a school-based literacy intervention program that integrates multi-sensory approaches, particularly targeting learners who are still at the low and transitioning reading levels.

6. Regular monitoring and evaluation of reading instruction should be implemented to ensure that multi-sensory strategies are being effectively used and producing measurable improvements in learner performance.

7. Promote collaborative learning and peer sharing sessions among teachers to exchange best practices and successful classroom techniques in multi-sensory reading instruction.

8. Parents and guardians should be encouraged to reinforce multi-sensory reading activities at home, such as storytelling, word games, and hands-on reading exercises, to support classroom learning.

9. Future researchers are encouraged to replicate and expand the study in other schools or grade levels, exploring additional variables such as learner motivation, reading

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fluency, or cognitive development to deepen the understanding of multi-sensory instruction's impact on literacy achievement.

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REFERENCES

- [1] Ali, A. M., & Razali, A. B. (2019). A Review of Studies on Cognitive and Metacognitive Reading Strategies in Teaching Reading Comprehension for ESL/EFL Learners. *English Language Teaching*, 12(6), 94. <https://doi.org/10.5539/elt.v12n6p94>
- [2] Abusaada, H. (2020). Strengthening the affectivity of atmospheres in urban environments: the toolkit of multi-sensory experience. *Archnet-IJAR: International Journal of Architectural Research*, 14(3), 379-392.
- [3] Akyol, H., & Boyaci Altinay, Y. (2019). Reading difficulty and its remediation: A case study. *European Journal of Educational Research*, 8(4), 1269-1286.
- [4] Alenizi, M. A. K. (2019). Effectiveness of a program based on a multi-sensory strategy in developing visual perception of primary school learners with learning disabilities: a contextual study of Arabic learners. *International Journal of Educational Psychology*, 8(1), 72-104.
- [5] Altmisdort, G. (2016). The Effects of L2 Reading Skills on L1 Reading Skills through Transfer. *English Language Teaching*, 9(9), 28. <https://doi.org/10.5539/elt.v9n9p28>

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- *****
- [6] Apuke, O. D. (2017). Quantitative Research Methods: A Synopsis Approach. Kuwait Chapter of Arabian Journal of Business and Management Review, 6(11), 40–47. <https://doi.org/10.12816/0040336>
- [7] Baker, L., & Adams, A. (2015). Picture Worth? Integrating Visual Literacy in Language Learning with Photographs. English Teaching Forum, Brumberger.
- [8] Bernadowski, C. (2017). From Novice to Expert: The Perceived Self-Efficacy of Teachers Implementing Orton-Gillingham with Children with Dyslexia--A Case Study. Journal on English Language Teaching, 7(2), 51-58.
- [9] Birsh, J. R., & Carreker, S. (2018). Multisensory Teaching of Basic Language Skills (4th ed.). Paul H. Brookes Publishing.
- [10] Bojovic, M. (2014). Reading Skills and Reading Comprehension in English for Specific Purposes. The International Language Conference on the Importance of Learning Professional Foreign Languages for Communication between Cultures., 1, 1–5.
- [11] Brand, S. T., & Dalton, E. (2012). Universal Design for Learning: Cognitive Theory into Practice for Facilitating Comprehension in Early Literacy. Forum on Public Policy Online, 2012(1), 1–19.
- [12] Budiman, I. (2017). The Influence of Teaching Reading Using Multisensory Method on Students' Reading Skill: A Quasi-Experiment at the' Second Grade of SMP Annaja Cipeundeuy. UIN Sunan Gunung Djati Bandung.
- [13] Celik Korkmaz, S., & Karatepe, C. (2018). The Impact of Multi-Sensory Language Teaching on Young English Learners' Achievement in Reading Skills. Novitas-ROYAL (ResCelik

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- *****
- [14] Chapman, J. W., & Tunmer, W. E. (2003). Reading difficulties, reading-related self-perceptions, and strategies for overcoming negative self-beliefs. *Reading & Writing Quarterly*, 19(1), 5-24.
- [15] Cho, E., Capin, P., Roberts, G., Roberts, G. J., & Vaughn, S. (2019). Examining Sources and Mechanisms of Reading Comprehension Difficulties: Comparing English Learners and Non-English Learners Within the Simple View of Reading. *Journal of Educational Psychology*, 111(6), 982–1000.
- [16] Davies, C. (2012). *Creating multisensory environments: practical ideas for teaching and learning*. Routledge.
- [17] Ehrlich, S. F., Gatzke-Kopp, L. M., & Kotler, J. A. (2020). Longitudinal relations between multisensory integration and reading skills in early childhood. *Journal of Experimental Child Psychology*, 190, 104703.
- [18] Fan, M., Antle, A. N., & Cramer, E. S. (2016, June). Design rationale: opportunities and recommendations for tangible reading systems for children. In *Proceedings of the 15th international conference on interaction design and children* (pp. 101-112).
- [19] Fernández, G. A., Ocampo, R. A., Costantino, A. R., & Dop, N. S. (2019). Application of Didactic Strategies as Multisensory Teaching Tools in Organic Chemistry Practices for Students with Visual Disabilities. *Journal of Chemical Education*, 96(4), 691–696. <https://doi.org/10.1021/acs.jchemed.8b00816>
- [20] Gerlach, D. (2017). Reading and spelling difficulties in the ELT classroom. *ELT Journal*, 71(3), 295–304. <https://doi.org/10.1093/elt/ccw088>
- [21] Griffin, N. M., Elleman, A. M., & Oslund, E. L. (2021). The impact of growth mindset instruction on the vocabulary acquisition and comprehension of first grade students. *Reading Psychology*, 42(7), 758- 776.
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- *****
- [22] Hoisington, B. (2015). Multisensory Activities to Teach Reading Skills. Minnesota Literacy Council, 1–24. <https://doi.org/10.1016/j.theriogenology.2015.11.028>
- [23] International Dyslexia Association (IDA). (2017). Effective Reading Instruction for Students with Dyslexia. <https://dyslexiaida.org/effective-reading-instruction/>
- [24] Jeyasekaran, J. M. (2015). Effectiveness of visual auditory kinesthetic tactile technique on reading level among dyslexic children at Helikx Open School and Learning Centre, Salem. International Journal of Medical Science and Public Health |, |, 315–318. <https://doi.org/10.5455/ijmsph.2015.0511201467>
- [25] Kivilehto, S., Malin, A., & Rätty, M. (2015). WHAT IS A MULTISENSORY TENT? DEVELOPING A MULTISENSORY METHOD AND NEW LEARNING ENVIRONMENTS.
- [26] Korkmaz, S., & Karatepe, C. (2018). The Impact of Multi-Sensory Language Teaching on Young English Learners' Achievement in Reading Skills. Novitas-ROYAL (Research on Youth and Language), 12(2), 80–95. Earch on Youth and Language), 12(2), 80–95.
- [27] Kuo, L. J., & Anderson, R. C. (2021). The effects of multisensory instruction on the reading performance of struggling readers: A meta-analysis. Reading and Writing, 34(5), 1075-1102.
- [28] Kuşdemir, Y., & Bulut, P. (2018). The Relationship between Elementary School Students' Reading Comprehension and Reading Motivation. Journal of Education and Training Studies, 6(12), 97. <https://doi.org/10.11114/jets.v6i12.3595>
- [29] Làdavass, E. (2008). Multisensory-based Approach to the Recovery of Unisensory Deficit. Annals of the New York Academy of Sciences, 1124(1), 98–110. <https://doi.org/10.1196/annals.1440.008>
- [30] Lakkala, S., Galkienė, A., Navaitienė, J., Cierpiąłowska, T., Tomecek, S., & Uusiautti, S. (2021). Teachers supporting students in collaborative ways—An analysis of
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- collaborative work creating supportive learning environments for every student in a school: Cases from Austria, Finland, Lithuania, and Poland. *Sustainability*, 13(5), 2804.
- [31] Mackey, A., & Gass, S. M. (2015). *Second language research: Methodology and design*. Routledge. Maliki, N. S. B. M., & Yasin, M. H. M. (2017). Application of Multisensory in Learning Alphabets Identification Skills for Special Education Students. *Journal of ICSAR*, 1(2), 150–154. <https://doi.org/10.17977/um005v1i22017p150>
- [32] Mangen, A. (2010). Hypertext fiction reading: Haptics and immersion. *Journal of Research in Reading*, 31(4), 404–419. <https://doi.org/10.1111/j.1467-9817.2008.00380.x>
- [33] McKenzie, M. (2019). A multisensory approach to phonics instruction in the early childhood classroom. *Childhood Education*, 95(2), 111-118.
- [34] Mireles, D. (2018). A Single Case Research Design Using Orton-Gillingham Based Reading Instruction. ProQuest LLC, Ed.D., 141. Moustafa, A., & Ghani, M. Z. (2016). The Effectiveness of a Multi-Sensory Approach in Improving LetterSound Correspondence among Mild Intellectual Disabled Students in State of Kuwait. *Journal of Education and Practice*, 7(32), 151–156.
- [35] Nasir, N. (2014). PENGARUH METODE SENSORI DALAM MENINGKATKAN KEMAMPUAN MEMBACA PERMULAAN. *TERAMPIL: Jurnal Pendidikan Dan Pembelajaran Dasar*, 1(1), 37–41. <https://doi.org/10.24042/TERAMPIL.V1I1.1303>
- [36] Nation, K. (2019). Children's reading difficulties, language, and reflections on the simple view of reading. *Australian Journal of Learning Difficulties*, 24(1), 47–73. <https://doi.org/10.1080/19404158.2019.1609272> Nurjanah, & Eka. (2017). Metode Multisensori Terhadap Kemampuan Mengenal Lambang Bilangan 1-10 Pada Anak Autis. *Jurnal Pendidikan Khusus*, 9(2).

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- *****
- [37] Okolo, C. (2020). Survey of Reading Disabilities Traits Among Primary One Pupils in Regular Primary Schools in Uyo, Akwa Ibom State. Akwa Ibom State (April 1, 2020).
- [38] Özdemir, E. Ç., & Akyol, H. (2019). The development of a reading comprehension. Universal Journal of Educational Research, 7(2), 563–570. <https://doi.org/10.13189/ujer.2019.070229>
- [39] Park, H. J., Takahashi, K., Roberts, K. D., & Delise, D. (2017). Effects of text-to-speech software use on the reading proficiency of high school struggling readers. Assistive Technology, 29(3), 146-152.
- [40] Pourhosein Gilakjani, A., & Sabouri, N. B. (2016). How Can Students Improve Their Reading Comprehension Skill? Journal of Studies in Education, 6(2), 229–240. <https://doi.org/10.5296/jse.v6i2.9201>
- [41] Sayeski, K. L., Earle, G. A., Davis, R., & Calamari, J. (2019). Orton Gillingham: Who, what, and how. TEACHING Exceptional Children, 51(3), 240-249.
- [42] Sila, A., & Lenard, V. (2020). The use of creative movement method in teaching foreign languages to very young language learners. European Journal of Social Science Education and Research, 7(1), 15- 27.
- [43] Skoglund, P., Persson, T., & Rédei, A. C. (2020). A Multisensory Approach to Rock Art: Exploring Tactile and Visual Dimensions in the Southern Scandinavian Rock Art Tradition. Proceedings of the Prehistoric Society, 1, 1–16. <https://doi.org/10.1017/ppr.2020.1>
- [44] Sousa, D. A. (2016). How the Brain Learns to Read (2nd ed.). Corwin Press.
- [45] Spence, C., & Endler, J. A. (2013). Review: The New Handbook of Multisensory Processing: Sensory Ecology, Behaviour, and Evolution. Perception, 42(5), 586–590. <https://doi.org/10.1068/p4205rvw>
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- *****
- [46] Syalviana, E. (2019). Metode Multisensori Sebagai Penanganan Kesulitan Membaca Siswa Retardasi Mental. *Al-MAIYYAH: Media Transformasi Gender Dalam Paradigma Sosial Keagamaan*, 12(1), 301– 320. <https://doi.org/10.35905/almaiyyah.v11i2.660>
- [47] Taljaard, J. (2016). A review of multi-sensory technologies in a science, technology, engineering, arts and mathematics (STEAM) classroom. *Journal of learning Design*, 9(2), 46-55.
- [48] Universal Design for Learning (CAST). (2018). UDL Guidelines Version 2.2. <http://udlguidelines.cast.org>
- [49] Walet, J. (2011). Differentiating for Struggling Readers and Writers: Improving Motivation and Metacognition through Multisensory Methods & Explicit Strategy Instruction. *Journal of the American Academy of Special Education Professionals*, 83–91.
- [50] Yurniwati, Y. (2018). Improving the Conceptual and Procedural Knowledge of Prospective Teachers through Multisensory Approach: Experience from Indonesia. *JRAMathEdu (Journal of Research and Advances in Mathematics Education)*, 3(2), 106. <https://doi.org/10.23917/jramathedu.v3i2.6374>

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AUTHOR'S PROFILE



MS. JESSA F. QUINAL

Rochelle Mae B. Solis, born on February 07, 1999, in Carlos Tan Street, Ormoc City, Leyte, is a dedicated educator known for her commitment to nurturing continuous learning and empowerment among her students. Her journey in education began at Ormoc City Central School, followed by her secondary education at New Ormoc City National High School, where she was deployed for her practice teaching.

Rochelle Mae continued her academic journey at Western Leyte College of Ormoc City, Inc. where she earned her Bachelor of Elementary Education in 2019. That same year, she passed the Licensure Examination for Teachers (LET), marking the official start of her teaching career.

Her commitment to lifelong learning led her to enroll in a Master of Arts in Education (MAEd) program, majoring in School Administration and Supervision. She successfully completed the academic requirements for her MAEd in May 2025, driven by her diverse experiences and the support of different groups she encountered through her academic journey.

Currently, Rochelle Mae is an esteemed Grade 3 teacher at Alta Vista Elementary School. Her dedication to education continues to inspire her students and peers, highlighting her unwavering commitment to making a meaningful impact in the educational landscape.

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