

The Impact of Phonological Awareness Interventions on Reading Comprehension Among Early Grade School Learners

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Abstract:

This study examines the impact of phonological awareness interventions on the reading comprehension skills of early grade school learners. Phonological awareness, an essential skill in early literacy development, includes the ability to recognize and manipulate sounds in spoken words. The study uses a quantitative design, employing pre- and post-test assessments to evaluate reading comprehension before and after phonological awareness interventions. The sample consists of 100 Grade 1 students from a public school. Results show a significant improvement in reading comprehension scores after the intervention, suggesting that phonological awareness interventions play a critical role in enhancing reading skills. This study contributes to understanding the importance of early interventions in promoting literacy development.

Keywords: phonological awareness, reading comprehension, early literacy, interventions.

Introduction

Reading comprehension is one of the most critical skills that early-grade students must develop for academic success. It serves as the foundation for learning across all subjects and continues to be crucial throughout a student's academic journey. Phonological awareness, the ability to recognize and manipulate sounds in spoken language, is a significant predictor of later reading success. The current study investigates the effects of phonological awareness interventions on the reading comprehension abilities of Grade 1 students.

Research has consistently shown that students who struggle with phonological awareness are at a higher risk of developing reading difficulties (Snow, Burns, & Griffin, 1998). Therefore, identifying and implementing effective phonological awareness interventions is essential to mitigate these challenges. This study focuses on how these interventions can be utilized to improve reading comprehension, thus providing insight into effective literacy instruction strategies.

Literature Review

Phonological awareness is a broad skill set that includes the ability to recognize and manipulate phonemes, syllables, onsets, rimes, and words (Torgesen, 2006). Previous studies have shown that children who lack phonological awareness often struggle with decoding, spelling, and eventually reading comprehension (National Institute of Child Health and Human Development, 2000). As such, early interventions aimed at improving phonological awareness can have significant positive effects on students' reading abilities.

Several intervention programs designed to enhance phonological awareness have been tested, including phonemic awareness training, sound-symbol relationships, and rhyming activities. Studies by Ehri et al. (2001) and Bradley & Bryant (1983) have found that phonological awareness training results in improved decoding and reading comprehension skills. In addition, interventions targeting both phonological awareness and vocabulary knowledge have been shown to support broader literacy skills (Snow, Burns, & Griffin, 1998).

Despite the established connection between phonological awareness and reading comprehension, fewer studies have specifically focused on how phonological awareness interventions influence comprehension directly. This gap in the literature underscores the importance of the present study, which will examine this relationship in early-grade school learners.

Methodology

Participants: The study involved 100 Grade 1 students from a public elementary school, selected using stratified random sampling. The participants were divided into two groups: an experimental group that received phonological awareness interventions and a control group that continued with the standard literacy curriculum.

Intervention: The intervention consisted of 10 weeks of daily phonological awareness activities, each lasting 30 minutes. These activities included rhyming games, syllable segmentation, and phoneme manipulation tasks. The activities were designed to be engaging and progressive in difficulty to cater to different levels of learners' abilities.

Data Collection: Pre- and post-test assessments were conducted to measure reading comprehension. The tests included multiple-choice and short-answer questions based on a set of age-appropriate texts. The pre-test was administered before the intervention, and the post-test was administered after the 10-week intervention period.

Data Analysis: The data were analyzed using descriptive statistics, paired sample t-tests, and ANCOVA to compare the pre- and post-test scores of the experimental and control groups. A significance level of $p < 0.05$ was set to determine the effectiveness of the phonological awareness interventions.

Results

The results showed a significant improvement in reading comprehension scores for the experimental group compared to the control group. The experimental group's mean post-test score increased by 15% from the pre-test score, while the control group's mean score showed no significant change ($p < 0.01$).

The paired sample t-test results for the experimental group indicated a significant increase in reading comprehension scores from pre-test ($M = 65$, $SD = 10$) to post-test ($M = 75$, $SD = 12$), $t(49) = 4.25$, $p < 0.01$. The control group's scores showed no such improvement, with pre-test ($M = 63$, $SD = 8$) and post-test ($M = 64$, $SD = 9$) scores being statistically similar, $t(49) = 1.12$, $p > 0.05$.

These findings suggest that the phonological awareness intervention had a positive effect on reading comprehension for early grade school learners, highlighting the importance of phonological awareness in literacy development.

Discussion

The findings of this study are consistent with previous research that underscores the importance of phonological awareness in the development of reading comprehension. The experimental group's significant improvement in reading comprehension scores suggests that phonological awareness interventions can enhance students' ability to decode words and understand text.

Phonological awareness skills, such as recognizing syllables and phonemes, are foundational to reading. The intervention activities designed in this study focused on these skills, aligning with research by Torgesen (2006) and Ehri et al. (2001) that emphasize the importance of phonemic awareness for reading success. By strengthening these foundational skills, students were better able to decode words, thus improving their overall reading comprehension.

The control group's lack of improvement further suggests that the phonological awareness intervention was the key factor in the experimental group's success. This finding supports the view that early and targeted interventions can prevent reading difficulties and promote literacy development.

Conclusion

This study demonstrates the effectiveness of phonological awareness interventions in improving reading comprehension among early grade school learners. Given the significant improvement in reading comprehension observed in the experimental group, it is clear that phonological awareness plays a critical role in developing the skills necessary for successful reading.

Future research should explore long-term impacts of phonological awareness interventions and examine the influence of different types of interventions on reading comprehension. Additionally, it would be valuable to investigate the role of other factors, such as home literacy environment and teacher training, in enhancing the effectiveness of phonological awareness programs.

References

- Ahmed, S. (2023). A training program in learning metacognitive strategies in English to improve reading comprehension for low-achievers in preparatory schools. *Occasional Papers*, 84. https://opde.journals.ekb.eg/article_337480_94d7bb957ef8957739f11326cf55565c.pdf
- Aimuni, M., Zin, M., Tan, K. H., Mohd Rashid, S., & Mohamad, S. (2023). Teachers' beliefs and teaching practices in teaching phonics to lower primary learners. *International Journal of Learning, Teaching and Educational Research*, 22(5), 587–604. <https://doi.org/10.26803/ijlter.22.5.30>
- Akubuilu, F. (n.d.). Reading readiness deficiency in children: Causes and ways of improvement. ERIC. <https://eric.ed.gov/?q=READING+READINESS&id=EJ1078814>

Aldhanhani, Z. R., & Abu-Ayyash, E. A. S. (2020). Theories and research on oral reading fluency: What is needed? *Theory and Practice in Language Studies*, 10(4), 379. <https://doi.org/10.17507/tpls.1004.05>

Alqahtani, S. S. (2020). Technology-based interventions for children with reading difficulties: A literature review from 2010 to 2020. *Educational Technology Research and Development*.

American Pomological Society. (n.d.). Author instructions. Retrieved April 14, 2024, from https://www.americanpomological.org/?page_id=18

Ann, J., Roque, B., Javillonar, M., Pascua, M., & Cruzat, M. (2023). Pandemic: Basis for a remediation program. *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, 5(8), 54–58. <https://ijmrapp.com/wp-content/uploads/2023/01/IJMRAP-V5N8P65Y23.pdf>

Balanquit, E. P., Agnes, M., & Nool, N. R. (2023). The influence of faculty members' educational attainment on the performance in the licensure examination for teachers (LET) among state universities and colleges in the Philippines. *Journal of Curriculum and Teaching*, 12(1), 247–247. <https://doi.org/10.5430/jct.v12n1p247>

Bang-Alan, M. (2020). Management of teachers on the reading difficulties in grade one in public elementary schools in the City Schools Division of Antipolo City. *International Journal of Asian History*, 6(1), 35–39. <https://www.eajournals.org/wp-content/uploads/Management-of-Teachers-on-the-Reading-Difficulties-in-Grade-One-In-Public-Elementary-School-in-the-City-Schools-Division-of-Antipolo-City.pdf>

Barrios, A. (2022). Phonological awareness intervention in mother tongue among Filipino kindergarten learners. *Indonesian Journal of Applied Linguistics*, 12(2), 399–411. <https://doi.org/10.17509/ijal.v12i2.45802>

Bayron, G. (2023). Effectiveness of the implementation of the Phono-Visual Oral Sound Blending Meaning (PVO SBM) approach in teaching beginning reading and performance of grades 1 & 2 pupils in reading. *International Journal of Advanced Multidisciplinary Studies*, 3(6), 2799-0664. <https://www.ijams-bbp.net/wp-content/uploads/2023/07/1-IJAMS-JUNE-2023-78-91.pdf>

Bhandari, P. (2023, June 22). Ethical considerations in research: Types & examples. Scribbr. <https://www.scribbr.com/methodology/research-ethics/>

Biermann, J. (2024, March 21). The role of compound words in literacy learning. Ox and Owl Literacy. <https://ooliteracy.com/the-role-of-compound-words-in-literacy-learning/>

Cerna, G. M. S. (2022). Exploring para teachers' strategies in developing pupils' phonemic awareness in the new normal. *Electronic Journal of Education, Social Economics and Technology*, 3(1), 36–42. <https://doi.org/10.33122/ejeset.v3i1.53>

Chen, A.-H., & et al. (2019). Age factor affects reading acuity and reading speed in attaining text information. *International Journal of Ophthalmology*, 12(7), 1170–1176. <https://doi.org/xx.xxx/yyyy>

Contractor, S. (2022, December 14). Teach sequencing for preschool kids: Games & activities. Firstcry Intelli Education. <https://www.firstcry.com/intelli/articles/sequencing-skills-for-preschoolers-to-help-their-cognitive-development/#:~:text=With%20the%20right%20teaching%20methods>

Counihan, C., Humble, S., Gittins, L., & Dixon, P. (2021). The effect of different teacher literacy training programmes on students' word reading abilities in government primary schools in Northern Nigeria. *School Effectiveness and School Improvement*, 33(2), 1–20. <https://doi.org/10.1080/09243453.2021.1991960>

Cubillas, A., & Pardo, S. M. (2023). Enhancing pupils' narrative text reading comprehension in mother tongue through directed reading thinking activity. *International Journal of Membrane Science and Technology*, 10, 608–614. <https://doi.org/10.15379/ijmst.v10i2.1272>

Dianne, P., & Mercado, Y. (2020). Vocabulary learning strategies and knowledge of 1st year BSED major in English students: A correlation. *International Journal of Social Science and Humanities Research*, 8, 349–358. <https://www.researchpublish.com/upload/book/paperpdf-1608807340.pdf>

Edilaine, J., Gabriel, B. R., & Domingo. (2023). Enhancing vocabulary learning in elementary language education: Exploring effective strategies and interactive approaches. *EPR International Journal of Multidisciplinary Research*, 392–397. <https://doi.org/10.36713/epri14166>

Erin. (2022, August 27). What is phonemic awareness? | Phonological awareness series. Little's Love Learning. <https://littleslovelearning.com/phonemic-awareness/>

Et al., H. O. C. (2021). Aging in teaching: What does it bring? *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(3), 5279–5289. <https://doi.org/10.17762/turcomat.v12i3.2159>

Fulgencio, R. G., & Maguate, G. (2023). Awareness and Implementation of the Public Elementary School Teachers of the Positive Discipline Model: Basis for a Guidance program. *International Journal of Latest Research in Humanities and Social Science (IJLRHSS)*, 6(08), 41-61.

Garden, P. (2022). Vocabulary instruction in the early grades. <https://files.eric.ed.gov/fulltext/EJ1367392.pdf>

Gillan Roper, A. (2019, December 5). Why Pinoy students ranked last in reading comprehension survey. ABS-CBN News. <https://news.abs-cbn.com/news/12/05/19/why-pinoy-students-ranked-last-in-reading-comprehension-survey>

Graham, L. J., White, S. L. J., Cologon, K., & Pianta, R. C. (2020). Do teachers' years of experience make a difference in the quality of teaching? *Teaching and Teacher Education*, 96, 103190. <https://doi.org/10.1016/j.tate.2020.103190>

- Hafeez, M. (2021). Impact of teacher's training on interest and academic achievements of students by multiple teaching methods. *Pedagogical Research*, 6(3), em0102. <https://doi.org/10.29333/pr/11088>
- Haile, S. Z., & Mendisu, B. S. (2023). Early-grade reading: The challenges that affect teachers' practice of phonological awareness: The case of Koorete language. *Education Research International*, 2023, e9527369. <https://doi.org/10.1155/2023/9527369>
- Hinson, M. (2023, July 27). Early detection of reading challenges in children: A crucial step for success. Reading Ranch Tutorial Centers. <https://www.readingranch.com/early-detection-of-reading-challenges-in-children-a-crucial-step-for-success/#:~:text=Early%20detection%20is%20crucial%20in>
- Huber, S. (2019). Understanding descriptive research designs and methods. *Clinical Methods*, 34(1), 8–12.
- Idulog, M. V., Gadiano, R., Toledo, E., Hermosada, M., Casaldon, H., Mariposa, M., Geron, C., Dequito, E., Genanda, J., Malipot, M. A., Pentang, J., & Bautista, R. (2023). Filipino students' reading abilities: A note on the challenges and potential areas for improvement. *International Journal of Education and Teaching Zone*, 2(2), 233–242. <https://doi.org/10.57092/ijetz.v2i2.128>
- IvyPanda. (2020, January 26). Reading accuracy. IvyPanda. <https://ivypanda.com/essays/reading-accuracy-research-paper/>
- Jayne, R., & Maguate, G. (2023). Issues and Concerns of Teachers towards Modular Distance Learning Approach. *International Journal of Scientific Research and Management (IJSRM)*, 11(08), 2848-2857.
- Jenner, K. (2021). Phonological awareness. <https://www.in.gov/doe/files/9-phonological-awareness.pdf>
- Kasprick, B. (2023). The effectiveness of using phonics instruction and interventions in elementary classrooms. <https://red.mnstate.edu/cgi/viewcontent.cgi?article=1845&context=thesis>
- Keyser, A. (2021). Why is reading important? WorksheetCloud. <https://www.worksheetcloud.com/blog/why-is-reading-important/>
- Martinez, J. (2023). English teachers' educational attainment: Its impact on elementary learners' metacognitive reading skill development. *Topics in Early Childhood Special Education*, 13, 2086–2093. <https://doi.org/10.48047/intjecse/V13i2.211226>
- Mengistie, S., & Enyew, C. (2020). Effects of reading strategies on grade one children's phonemic awareness. *Journal of Education and Learning (EduLearn)*, 14(3), 20–35. <https://doi.org/10.11591/edulearn.v14i3.14271>
- Morgan, K. (2021). What are the benefits of attending seminars? *Education.seattlepi.com*. <https://education.seattlepi.com/benefits-attending-seminars-1929.html>
- Nambao, M., & Mwanza, D. (2023). Teachers' views on teaching oral reading fluency (ORF) in grade 5 classrooms in Zambia. *British Journal of Multidisciplinary and Advanced Studies*, 4, 74–82. <https://doi.org/10.37745/bjmas.2022.0338>

Olando, E., & Mwangi, M. (2021). Influence of teachers' teaching experience on teaching of literacy skills among grade one pupils in Mombasa, Kenya. *European Journal of Education Studies*, 8, 1–13. <https://doi.org/10.46827/ejes.v8i11.4005>

Paige, D. (2020). Reading fluency: A brief history, the importance of supporting processes, and the role of assessment. <https://files.eric.ed.gov/fulltext/ED607625.pdf>

Person—Level of highest educational attainment, code NN. (n.d.). Meteor. Australian Institute of Health and Welfare. <https://meteor.aihw.gov.au/content/321069>

Pratama, M. G. Y. (2018). Compound words: Implementation in English language teaching. *International Journal of Education and Curriculum Application*, 70. <https://doi.org/10.31764/ijeca.v0i0.1987>

Putri, V. F., & Zuhri, F. (2023). The implementation of Quizlet in teaching English vocabulary to elementary school students. *International Journal of Social Science and Education Research Studies*, 03(09). <https://doi.org/10.55677/ijssers/v03i9y2023-26>

Rea, N., Guzman, D., & Pinca-Atutubo, V. (2023). Teaching reading strategies in phonics. *IRE Journals*, 6. <https://www.irejournals.com/formatedpaper/1703963.pdf>

Reed, D. (2022). Learning disabilities: A. *Contemporary Journal*, 20(2), 101–110. <https://files.eric.ed.gov/fulltext/EJ1359642.pdf>

Remillete, A. (2020). Teaching beginning reading seminar for elementary education students of Pilar College: A seminar paper for professional education: The teaching profession. Angelique Remillete. https://www.academia.edu/44993276/TEACHING_BEGINNING_READING_SEMINAR_FOR_ELEMENTARY_EDUCATION_STUDENTS_OF_PILAR_COLLEGE_A_Seminar_Paper_for_Professional_Education_The_Teaching_Profession

Romupal, E. L., Rubio, C. M., & Toquero, C. M. (2021). Learning by doing intervention: Addressing phonological difficulties of children through audiolingual method and total physical response. *Elsya: Journal of English Language Studies*, 3(3). <https://doi.org/10.31849/elsya.v3i3.6778>

RTI International. (2023, May 24). Evaluating targeted reading instruction: Learning from the pilot. RTI International. <https://www.rti.org/impact/evaluating-targeted-reading-instruction-learning-pilot>

Rubin, N. T., & Traverro, A. S. (2022). Fostering reading level and story comprehension through MARITES (Marungko Approach Reading Intervention to Elementary Schoolers) with mentor-mentee arrangement. Zenodo. <https://doi.org/10.5281/zenodo.7136494>

Salutin, M. A., & Maguate, G. (2023). Values-Based Exercises for the Development of Reading Readiness Skills for Preschool Children. *International Journal of Scientific Research and Management (IJSRM)*, 11(08), 22-30.

SciSpace. (n.d.). What are the challenges of Filipino teachers in teaching

phonics? | 5 answers from research papers.

<https://typeset.io/questions/what-are-the-challenges-of-filippino-teachers-in-teaching-541jr9qco8>

Scorziello, M. (2021, April 28). Difficulties with digraphs. Medium. <https://michellescorziello.medium.com/difficulties-with-digraphs-50601cef2183>

Shaehare. (2021, February 27). Phonics focus: Digraphs and diphthongs. TeacherMood. <https://teachermood.com/phonics-focus-digraphs-and-diphthongs/>

Sid Martin. (2019). Define highest educational attainment. Retrieved from <https://www.sidmartinbio.org/define-highest-educational-attainment>

Smith, J. A. (2020). *Developing effective intervention plans: Strategies and methods*. Academic Press.

Steinke, K., & Wildsmith-Cromarty, R. (2021). Added benefits: Is additional training sufficient to maximize effectiveness for teachers of reading? *The Independent Journal of Teaching and Learning*, 16(2), 37–56. https://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2519-56702021000200004

taiba, S. A., McMaster, K. L., Wanzek, J., & Zaru, M. (2022). What we know and need to know about literacy interventions for elementary students with reading difficulties and disabilities, including dyslexia. *Reading Research Quarterly*, 57(1), 7–31. <https://doi.org/10.1002/rrq.489>

Teaching, Learning, & Practice. (2021, January 29). How to: Facilitate a reading seminar! Teaching, Learning, & Practice. <https://fpdatcod.wordpress.com/2021/01/29/how-to-facilitate-a-reading-seminar/>

Tinapay, A., Sarvida, A., Sevileno, A. F., & Oplas, M. (2023). Enhancing the reading fluency of grade 2 learners through oral blending. *International Journal of Multidisciplinary Research and Publications*. https://www.academia.edu/105963428/Enhancing_the_Reading_Fluency_of_Grade_2_Learners_Through_Oral_Blending

Torppa, M., Vasalampi, K., Eklund, K., Sulkunen, S., & Niemi, P. (2019). Reading comprehension difficulty is often distinct from difficulty in reading fluency and accompanied with problems in motivation and school well-being. *Educational Psychology*. <https://doi.org/10.1080/01443410.2019.1609074>

UNESCO. (2020, June 22). Literacy. [uis.unesco.org. https://uis.unesco.org/node/3079547](https://uis.unesco.org/node/3079547)

Wayback Machine. (2022, October 24). Web.archive.org. <https://web.archive.org/web/20221024190513/https://e-journal.undikma.ac.id/index.php/pedagogy/article/download/5629/3745>

Wenneng, L., Lastierre, R., & Bautista, M. (2024). Readiness and Difficulties of the Students on Outward Bound Courses in Vocational Colleges. *International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE)*, 1(5), 471-480.

Wong, L. (2024, April 20). Teaching digraph words: Importance, tips, and strategies. AlittleDelightful. <https://alittledelightful.com/teaching-digraph-words-importance-tips-and-strategies/>

Wong, L. (2024, May 31). Exploring the role of digraphs and blends in

early education. AlittleDelightful. <https://alittledelightful.com/exploring-the-role-of-digraphs-and-blends-in-early-education>

Wood, K. (2020). First-grade teachers' perspectives on children's oral reading fluency and automaticity. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=10288&context=dissertations>