Optimization of Reading Habits and Literacy: A Critical Analysis in the Context of Upper Basic Education in Ecuador

Graciela Josefina Castro-Castillo[1], Paolo Fabre-Merchán[2], Marta Cecilia Ibarra Freire[3], Jefferson Estuardo Mendoza Carrera[4], Diana Jesús Burgos Mendieta[5]

Abstract

This study aims to analyze the development of reading habits and reasoning in reading and writing among students in upper basic education in Zone 5 of Ecuador. A mixed methodological approach combining quantitative and qualitative methods was used. The sample consisted of 775 students, allowing for an authentic understanding of the participants' conditions and experiences. Data were collected through literature review and surveys, and analyzed using SPSS software. The results revealed a moderate prevalence of reading habits, with a significant percentage of students showing interest and enjoyment in reading. However, areas for improvement were identified in terms of the frequency and diversity of readings. Regarding reasoning in reading and writing, most students demonstrated basic comprehension skills, but there is a need to strengthen critical and reflective thinking, as well as coherent and argumentative written expression. In conclusion, this study highlights the importance of promoting and optimizing reading habits and reasoning in reading and writing among students in upper basic education. The implementation of educational strategies that encourage frequent and diverse reading, along with the development of critical and communicative skills, is recommended. These actions will contribute to improving educational quality and cultivating competent students in the era of information and knowledge.

Introduction

In the context of an increasingly globalized society, education plays a vital role as a catalyst for change towards sustainable development.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) is committed to promoting high-quality education focused on sustainable development with the aim of transforming society by reorienting education to foster the development of knowledge, skills, values, and behaviors essential for sustainability (Cars & West, 2015; Glavič, 2020).

---

[1] Universidad Estatal de Milagro, Ecuador.Email: gcastroc4@unemi.edu.ec .ORCID:ORCID https://orcid.org/0000-0001-8776-6890

[2] Universidad Estatal de Milagro, Ecuador. Email: pfabrem@unemi.edu.ec. ORCID: http://orcid.org/0000-0001-7457-0776

[3] Universidad Estatal de Milagro, Ecuador.Email: mibarraf1@unemi.edu.ec.ORCID: https://orcid.org/0000-0002-3272-6856

[4] Universidad Estatal de Milagro, Ecuador. Email: jmendozac4@unemi.Edu.ec. ORCID: https://orcid.org/0000-0001-5470-8483

[5] Universidad Estatal de Milagro, Ecuador. Email: dburgosm1@unemi.edu.ec. ORCID: https://orcid.org/0000-0003-3198-675X

Education for sustainable development is not limited to scientific and technical disciplines but also includes humanistic and sociocultural ones. In this regard, reading, and specifically reading habits, play a crucial role (Jiménez-Pérez et al., 2020; Parmawati, 2018). This educational approach, which goes beyond traditional disciplines, emphasizes the importance of crucial themes for sustainable development, such as climate change and biodiversity, and their integration into teaching and learning. However, one aspect of education that requires further exploration and optimization is reading, given its potential to foster students' integral and sustainable development. Despite efforts, there remains a considerable gap between the ideal vision and the reality of reading teaching and learning in classrooms. As a fundamental skill in the learning process (Genlott & Grönlund, 2013), reading has the potential to stimulate critical thinking, which aids in the organization of ideas, understanding of texts, and the ability to evaluate arguments (Kucan & Beck, 1997). However, this power of reading to develop cognitive and critical skills is often underutilized, resulting in a gap in understanding and application of this habit in the classroom. Moreover, among students, reading is often done out of obligation rather than curiosity or a genuine desire to learn. This highlights a deficiency in how reading is promoted and taught in the educational system and underscores the need to investigate and intervene in this area. Previous studies have revealed that the problem lies not only in a lack of reading competency but also in a lack of interest and motivation from students towards reading (Guthrie & Davis, 2003; Soodmand Afshar & Movassagh, 2016). This finding adds an additional dimension to the challenge, implying that teaching strategies must go beyond merely improving reading skills and must also work to instill a positive attitude towards reading. This challenge is particularly evident in Zone 5 of Ecuador's Planning, which covers the provinces of Bolívar, Guayas, Los Ríos, and Santa. Given this situation, the research proposal seeks to answer the question: How can the development of reading habits and literacy reasoning be improved among Upper Basic Education students in Zone 5 of Ecuador? This study aims to go beyond merely increasing students' reading competence. It seeks to discover ways to integrate the reading habit into the classroom in such a way that it not only fosters the students' integral development but also explores how reading can be used as a tool to teach and promote values and behaviors essential for sustainable development. The goal is to contribute to the formation of individuals equipped to face the challenges of sustainable development and actively participate in building a more equitable and resilient future. For this, it is paramount to conduct research that addresses existing gaps in reading training and proposes effective interventions, thus highlighting the relevance of this study. It is pertinent to note that the findings of this study will have relevance beyond Zone 5 of Ecuador's Planning, as they could inform educational policies and practices in other contexts and regions. By providing research-based evidence on how to improve reading habits and literacy competency, this study has the potential to contribute significantly to achieving UNESCO's Sustainable Development Goals in education. Therefore, the purpose of this study is to analyze the development of reading habits and literacy reasoning in Upper Basic Education

students in Zone 5 of Ecuador, to cultivate critical, reflective, and creative thinking aligned with UNESCO's vision of sustainability.

Materials and Methods

The methodological strategy adopted in the present investigation was based on a mixed paradigm that merged both quantitative and qualitative elements, with the aim of providing a holistic and nuanced view of the phenomenon in question. The quantitative facet was oriented towards producing empirical data about the prevalence and magnitude of reading habits, while the qualitative facet, through direct observation, facilitated a detailed and deep perception of individual experiences and student perceptions. The methodological strategy was delineated from a descriptive and non-experimental approach, which allowed examining the participants in their natural environment without explicit manipulation of variables. This choice is reflected in an authentic representation of the students' genuine conditions and experiences. The study population consisted of 775 students belonging to the upper basic education level of Zone 5 Planning in Ecuador. This sample size, of considerable proportions, contributed to ensuring the representativeness and diversity required for a research of such magnitude.

The data collection process encompassed a meticulous bibliographic review and the implementation of surveys among students. The bibliographic review, focused on building a solid theoretical framework, identified current trends in the field of literacy and critical and reflective thinking, which facilitated contextualizing the research within contemporary academic discourse. On the other hand, the surveys provided crucial quantitative information about the students' attitudes and experiences regarding reading and writing.

The analysis of the collected data was performed through the SPSS statistical software, widely recognized and used in the field of social and educational research. This software enabled the execution of both descriptive and inferential analysis from the quantitative data gathered, facilitating the identification of patterns and underlying relationships in the collected information. The findings derived from this quantitative analysis were integrated with the perspectives obtained through the qualitative component, thereby providing a comprehensive and nuanced understanding of the development of reading habits and literacy reasoning among upper basic level students.

Results and Discussion

The validation of the internal consistency of a measurement instrument, such as a questionnaire or test, is a critical component in evaluating its reliability. For this purpose, in this study, Cronbach's Alpha coefficient was applied, a statistical measure often used in psychometrics to calculate internal consistency. Cronbach's Alpha coefficient was used to determine the average correlation among the items that make up the test, providing a representation of the degree to which all the test items correlate with each other. In other words, it allows understanding to what

extent all the items measure the same latent construct. A Cronbach's Alpha value close to 1 suggests high internal consistency, which implies that the test items are closely related and therefore provide a reliable measurement of the construct in question.

Table 1: Interpretation of Cronbach's Alpha values

Coefficient	Interpretation
From 0 to 0.20	Practically null correlation
From 0.21 to 0.40	Low correlation
From 0.41 to 0.70	Moderate correlation
From 0.71 to 0.90	High correlation
From 0.91 to 1	Very high correlation

In the interpretation scale, a Cronbach's Alpha that ranges between 0.71 and 0.90 is considered a high correlation, which means that the items are highly interrelated and effectively measure the same construct. Next, the results of the reliability test of the pretest are presented in the context of the study on reading habits and literacy. The pretest reliability test was carried out to assess the internal consistency of the measures used in the initial measurement of reading habits and literacy. This test is fundamental to determine the reliability and stability of the measurements made.

Table 2: Pre-Test Reliability Results Measured by Cronbach's Alpha

Coefficient	Cronbach's Alpha	Number of Items
Pre-Test	0.876	22

With a Cronbach's Alpha of 0.876, the pretest reliability test in this study demonstrates high internal consistency. The Cronbach's Alpha coefficient is a statistical measure used to assess the reliability of a scale or test, and its value of 0.876 indicates that the 22 items in the test effectively measure the same construct and are highly interrelated. The value of 0.876 is within the "high correlation" range on the Cronbach's Alpha interpretation scale, which supports the reliability of the test items. This means that the items are consistently correlated with each other and that they reliably capture the construct being evaluated, in this case, reading habits and literacy.

Post-Test Internal Consistency Evaluation: Cronbach's Alpha

In the post-test phase, our aim was to examine whether the improvements implemented in the test or interventions carried out during the study period had impacted the internal consistency of the test itself.

The reliability statistics for the post-test are presented below:

Table 3: Post-Test Reliability Results Measured by Cronbach's Alpha

Coefficient	Cronbach's Alpha	Number of Items
Post-Test	0.957	22

The Cronbach's Alpha coefficient obtained for the post-test was 0.957, a value that falls within the "very high correlation" range on this interpretation scale, implying that the test items are

highly interrelated and effectively measure the same construct. This value, which is higher than that obtained in the pre-test, suggests that the improvements made in the test or the interventions carried out during the study period have increased the test's internal consistency. This increase in Cronbach's Alpha suggests that the test's precision in measuring the construct has improved following the interventions or changes implemented. That is, the 22 items of the test correlate even more closely with each other in the post-evaluation than in the pre-evaluation, indicating that they are providing a more consistent and reliable measurement of the construct in question. On the other hand, an analysis of the frequency of response categories collected during the pretest is presented. Table 4 details the number of times each category was selected by the participants, along with the percentage they represent in the total of valid responses.

Table 4: Frequency of response categories in the pretest

Criteria		Frequency	Percentage	Valid Percentage	Accumulated Percentage
	Never	31	3.9	4.0	4.0
	Almost Never	509	63.5	65.7	69.7
Valid	Sometimes	224	27.9	28.9	98.6
Total	Almost Always	11	1.4	1.4	100.0
		775	96.6	100.0	
Missing	System	27	3.4		
Total		**802**	**100.0**		

Table 4, which shows the pretest results for the optimization of reading habits and literacy in students of Basic Higher Education in Ecuador, reveals important information about the distribution and trends in the participants' responses. These results can be analyzed in the context of previous research that has addressed issues related to reading habits and literacy. In terms of the high participation and engagement of the subjects, these findings are consistent with previous studies. For example, Abid et al. (2023) emphasize the importance of active student participation in evaluating reading habits to obtain reliable and meaningful results. In addition, the high percentage of valid responses also supports the reliability of the results, as suggested by Ravens-Sieberer et al. (2010). The prevalence of the "Almost Never" category as the most frequent option in the pretest agrees with previous research on reading habits in basic education students. According to Masrai (2019), many students show a low frequency of reading at this educational level. This suggests the need to address and understand the reasons behind this trend in order to design appropriate intervention strategies, as pointed out by Deale y Lee (2022), who highlight the importance of implementing effective programs to improve reading habits in students. The presence of the "Sometimes" category as the second most frequent option in the pretest reinforces the idea that there is variability in reading habits and literacy among the participants. This variability may be due to various individual and contextual factors, as suggested by Wang et al. (2022) in their study on the implications of reading engagement in students. On the other hand, the low frequency of the "Almost Always" category indicates that a minority of the participants showed a high frequency or consistency in reading habits and literacy. This minority may represent an exceptional group and could be subject to further research to understand the

factors driving their distinctive behavior and attitude. These results align with the findings of Chu et al. (2020), who highlight the importance of analyzing the individual characteristics that contribute to the formation of consistent reading habits. Additionally, the Post-Test Frequency Table provides a quantitative representation of the responses collected after the intervention aimed at improving reading habits and literacy. This analysis allows us to evaluate the changes in the attitudes, behaviors, and competence levels of the participants after the intervention.

Table 5: Frequency of response categories in the posttest

Criteria		Frequency	Percentage	Valid Percentage	Accumulated Percentage
Valid	Sometimes	10	1.2	1.3	1.3
	Almost Always	173	21.6	22.3	23.6
	Always	592	73.8	76.4	100.0
Total		775	96.6	100.0	
Missing	System	27	3.4		
Total		**802**	**100.0**		

The Post-Test Frequency Table provides quantitative information about the responses obtained after the intervention to improve reading habits and literacy. These results can be analyzed in relation to previous studies that have addressed similar topics. The high percentage of valid responses (96.6%) demonstrates the participation and commitment of the subjects after the intervention. This finding is consistent with the importance of active student participation in the process of improving their reading and writing skills. As pointed out by Kim et al. (2011), active participation and student engagement are key factors for the success of interventions aimed at improving reading habits and literacy. The low frequency of the "Sometimes" category indicates that only a small group of participants reported having an average frequency in reading practice and writing skills after the intervention. This suggests the need to implement additional and personalized strategies to improve consistency in reading habits and literacy in this specific subgroup. Previous research, like that of Bhattacharyya and Shariff (2014), has highlighted the importance of designing educational strategies adapted to the individual needs of students to improve their reading engagement and practice. The fact that 21.6% of participants selected the "Almost Always" category indicates an increase in the frequency of reading habits and literacy after the intervention. This shows that a significant proportion of participants experienced improvements in their reading and writing skills, which is consistent with the effectiveness of the intervention. These results support the findings of previous research, like those of Jere-Folotiya et al. (2014), who have demonstrated the positive impact of interventions on the development of reading habits and literacy competence. It is encouraging to observe that the majority of participants (73.8%) selected the "Always" option, indicating that they were able to maintain a high frequency and consistency in reading habits and literacy after the intervention. This highlights the success of the intervention in promoting a strong reading habit and an advanced level of literacy competence. These results are consistent with the findings of previous research, like those of Merga (2017), who have demonstrated the importance of maintaining constant

practice for the development of reading and writing skills. In this study, a comparative analysis of the means of two paired sample groups was carried out: the pretest (grouped) and the posttest (grouped). These groups represent measurements taken before and after the application of the strategies proposed in the intervention program.

Table 6: Descriptive statistics for the grouped pretest and postest

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 PRETEST (Grouped)	2.28	775	0.556	0.020
POSTEST (Grouped)	4.75	775	0.462	0.017

The presented results demonstrate a significant change in the means between the pretest and postest, suggesting an improvement in the reading habit and literacy of the participants. These findings are consistent with previous literature that has demonstrated the effectiveness of certain interventions in improving these skills (Tárraga-Mínguez et al., 2020). The change in means also supports the hypothesis that the intervention has had a positive impact on these essential skills, an outcome that is in line with the findings of similar studies (Graham & Kelly, 2019). The high internal validity of this study, strengthened by the use of paired samples, increases confidence in these results and is a methodology. Moreover, these findings underscore the importance of continuing to implement programs and strategies that seek to improve reading habits and literacy in Basic Superior Education, a point that has been emphasized in previous studies (Fang & Wei, 2010). The increase in the means of the postest suggests that the implemented strategies have been effective. However, it is important to highlight that, despite the observed improvement, the development of reading habits and literacy is a continuous process that requires constant evaluation and adjustments, an observation backed by (Coyne et al., 2013). In this sense, these results highlight the need for continuous follow-up and refinement of the strategies employed to ensure a sustained and optimal improvement in reading and writing skills in students (Lowther et al., 2003). Likewise, a correlation analysis of paired samples was carried out between the pretest (grouped) and the postest (grouped) to evaluate the relationship between these two variables in the context of reading habits and literacy. The table shows the results obtained.

Table 7: Correlation between the results of the grouped pretest and postest

	N	Correlation	Sig.
Pair 1 PRETEST (Grouped) & POSTEST (Grouped)	775	0.013	0.722

The results presented in the table show a very low and non-significant correlation between the pretest and the postest, in terms of reading habits and literacy. This finding aligns with the results of previous studies that have also suggested the weakness of this relationship (Tong et al., 2014). These results seem to suggest that, although intuitively we would expect a stronger relationship, other factors may be at play that could interfere with this relationship. A similar finding was observed by Camacho et al. (2021), who argued that the level of motivation, previous experience in reading and writing, and other individual factors can have a considerable impact on performance measures and can influence the results.

The correlation of 0.013 between the pretest and postest reinforces this interpretation. This very low value indicates a lack of relationship, which is in agreement with the findings of previous studies that have also demonstrated a weak association between measures (Rausch et al., 2003). This suggests that the initial measurements of the pretest do not provide a solid basis for predicting participants' progress after the intervention. As a result, these findings have significant implications for the design and implementation of future interventions in the field of reading habits and literacy. As Goldfeld et al. (2022), argue, the lack of significant correlation between measures suggests that the focus of the intervention should be broader and take into account other factors beyond initial measurements. Next, we present the table of the results of the paired samples test and it provides us with information about the differences between the pretest and the postest in terms of reading habits and literacy.

Table 8. Differences in pretest and posttest grouped results through a paired samples t-test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig.(two tailed)
		Mean	Std. Deviation	Std.Error Mean	Lower	Upper	t	gl	
Pair 1	PRETEST(Grouped) POSTEST(Grouped)	-2.474	0.718	0.026	-2.524	-2.423	-95.883	774	0.000

The results presented in the table show a significant difference between the pretest and posttest measures in terms of reading habits and students' communicative competencies. This difference, backed by a t-value of -95.883 and a bilateral significance value of 0.000, indicates an improvement in communicative abilities and reading habits after the implementation of the proposed strategies.

These findings are in line with previous literature that has found similar results (Stoller & Nguyen, 2020). The confidence interval for the difference, which ranges from -2.524 to -2.423, provides a high probability that the true difference between the pretest and posttest lies within this range, thus providing greater confidence in the study's findings. These results support previous research that has also found significant improvements following the implementation of similar interventions (Prescott et al., 2018).

The observed improvement in reading habits and communicative competencies suggests that the strategies implemented in the study have had a positive impact, a finding that is supported by previous studies that have also found a positive impact from similar interventions (de Bondt & Bus, 2022). It's important to highlight that the use of paired samples in this study increases the internal validity and reliability of the results.

Additionally, the sample size (774 degrees of freedom) provides statistical robustness that allows greater confidence in the generalization of the results to the studied population, an important point that has been highlighted by previous studies.

Conclusions

This study provides evidence to address the research question posed about how to improve the development of reading habits and literacy reasoning in higher basic education students in Zone 5 of Ecuador. The findings indicate a significant effectiveness of the proposed educational strategies in improving reading frequency and competence in literacy. A statistical significance is observed in the difference between the pre and post-intervention scores in reading and writing competencies, which suggests a direct association between the pedagogical intervention and the strengthening of these competencies. This result supports the postulation that targeted educational interventions can increase reading and writing skills in Higher Basic Education students.The analysis carried out in relation to the study's objective has facilitated a better understanding of the situation of the students' reading and writing competencies in Zone 5 of Ecuador and has provided insights into how these can be enhanced. The evidence obtained underscores the need to integrate reading promotion strategies and the improvement of reading skills into study programs. A crucial element that emerged from the findings is the need to consider the individual characteristics of students when designing and implementing educational interventions. This personalization goes beyond merely adapting teaching to the learning needs of students. It also involves considering their cultural backgrounds, their previous learning experiences, and their personal aspirations. The adaptability of the strategies should not only be focused in terms of content and methodology, but also in how they are delivered and adjusted over time to meet the changing needs of students. Adaptable and personalized strategies can maximize the effectiveness of interventions and therefore improve the development of reading habits and literacy reasoning of the Higher Basic Education students in Zone 5 of Ecuador. As for the improvement process in reading and writing competencies, it is emphasized that it is not a single event, but rather a continuous trajectory that needs monitoring and regular adjustments. Students not only need to learn new skills, but also to reinforce and improve existing ones. This finding reinforces the conception that the increase of these skills is a dynamic process and not a linear phenomenon. A continuous learning approach is suggested, where teachers regularly review student progress and adapt teaching strategies as needed. This approach can lead to sustainable improvement in students' reading habits and literacy skills. The robustness of the internal validity obtained in this study, through the use of paired samples, and the significant size of the sample used, provide a high degree of confidence in the generalization of the results to the context of Zone 5 of Ecuador. The methodological rigor employed in this study not only increases the reliability of the findings, but also reinforces their relevance in the Ecuadorian educational context. The use of a paired sample design allowed for an accurate analysis of changes in students' reading and writing skills before and after the intervention. In addition, the significant sample size increases the representativeness of the results, which allows for more solid and relevant conclusions to be drawn for Higher Basic Education students in Zone 5 of Ecuador.

Finally, relevant evidence is provided on the efficacy of specific interventions for the development of reading habits and literacy skills in Higher Basic Education students in Zone 5 of Ecuador. This contribution enriches the existing body of knowledge and has significant implications for pedagogical practices and educational policies in the region.

References

Abid, N., Aslam, S., Alghamdi, A. A., & Kumar, T. (2023). Relationships among students' reading habits, study skills, and academic achievement in English at the secondary level. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1020269

Bhattacharyya, E., & Shariff, A. B. M. S. (2014). Learning Style and its Impact in Higher Education and Human Capital Needs. Procedia - Social and Behavioral Sciences, 123, 485–494. https://doi.org/10.1016/j.sbspro.2014.01.1448

Camacho, A., Alves, R. A., & Boscolo, P. (2021). Writing Motivation in School: a Systematic Review of Empirical Research in the Early Twenty-First Century. Educational Psychology Review, 33(1), 213–247. https://doi.org/10.1007/s10648-020-09530-4

Cars, M., & West, E. E. (2015). Education for sustainable society: attainments and good practices in Sweden during the United Nations Decade for Education for Sustainable Development (UNDESD). Environment, Development and Sustainability, 17(1), 1–21. https://doi.org/10.1007/s10668-014-9537-6

Chu, L., Li, P.-H., & Yu, M.-N. (2020). The longitudinal effect of children's self-regulated learning on reading habits and well-being. International Journal of Educational Research, 104, 101673. https://doi.org/10.1016/j.ijer.2020.101673

Coyne, M. D., Simmons, D. C., Hagan-Burke, S., Simmons, L. E., Kwok, O.-M., Kim, M., Fogarty, M., Oslund, E. L., Taylor, A. B., Capozzoli-Oldham, A., Ware, S., Little, M. E., & Rawlinson, D. M. (2013). Adjusting Beginning Reading Intervention Based on Student Performance: An Experimental Evaluation. Exceptional Children, 80(1), 25–44. https://doi.org/10.1177/001440291308000101

de Bondt, M. G., & Bus, A. G. (2022). Tracking the long-term effects of the Bookstart intervention: Associations with temperament and book-reading habits. Learning and Individual Differences, 98, 102199. https://doi.org/10.1016/j.lindif.2022.102199

Deale, C. S., & Lee, S. H. (2022). To Read or Not to Read? Exploring the Reading Habits of Hospitality Management Students. Journal of Hospitality & Tourism Education, 34(1), 45–56. https://doi.org/10.1080/10963758.2020.1868317

Fang, Z., & Wei, Y. (2010). Improving Middle School Students' Science Literacy Through Reading Infusion. The Journal of Educational Research, 103(4), 262–273. https://doi.org/10.1080/00220670903383051

Genlott, A. A., & Grönlund, Å. (2013). Improving literacy skills through learning reading by writing: The iWTR method presented and tested. Computers & Education, 67, 98–104. https://doi.org/10.1016/j.compedu.2013.03.007

Glavič, P. (2020). Identifying Key Issues of Education for Sustainable Development.

Sustainability, 12(16), 6500. https://doi.org/10.3390/su12166500

Goldfeld, S., Beatson, R., Watts, A., Snow, P., Gold, L., Le, H. N., Edwards, S., Connell, J., Stark, H., Shingles, B., Barnett, T., Quach, J., & Eadie, P. (2022). Tier 2 oral language and early reading interventions for preschool to grade 2 children: a restricted systematic review. Australian Journal of Learning Difficulties, 27(1), 65–113. https://doi.org/10.1080/19404158.2021.2011754

Graham, J., & Kelly, S. (2019). How effective are early grade reading interventions? A review of the evidence. Educational Research Review, 27, 155–175. https://doi.org/10.1016/j.edurev.2019.03.006

Guthrie, J. T., & Davis, M. H. (2003). Motivating struggling readers in middle school through an engagement model of classroom practice. Reading & Writing Quarterly, 19(1), 59–85. https://doi.org/10.1080/10573560308203

Jere-Folotiya, J., Chansa-Kabali, T., Munachaka, J. C., Sampa, F., Yalukanda, C., Westerholm, J., Richardson, U., Serpell, R., & Lyytinen, H. (2014). The effect of using a mobile literacy game to improve literacy levels of grade one students in Zambian schools. Educational Technology Research and Development, 62(4), 417–436. https://doi.org/10.1007/s11423-014-9342-9

Jiménez-Pérez, E., Barrientos-Báez, A., Caldevilla-Domínguez, D., & Gómez-Galán, J. (2020). Influence of Mothers' Habits on Reading Skills and Emotional Intelligence of University Students: Relationships in the Social and Educational Context. Behavioral Sciences, 10(12), 187. https://doi.org/10.3390/bs10120187

Kim, J. S., Capotosto, L., Hartry, A., & Fitzgerald, R. (2011). Can a Mixed-Method Literacy Intervention Improve the Reading Achievement of Low-Performing Elementary School Students in an After-School Program? Educational Evaluation and Policy Analysis, 33(2), 183–201. https://doi.org/10.3102/0162373711399148

Kucan, L., & Beck, I. L. (1997). Thinking Aloud and Reading Comprehension Research: Inquiry, Instruction, and Social Interaction. Review of Educational Research, 67(3), 271–299. https://doi.org/10.3102/00346543067003271

Lowther, D. L., Ross, S. M., & Morrison, G. M. (2003). When each one has one: The influences on teaching strategies and student achievement of using laptops in the classroom. Educational Technology Research and Development, 51(3), 23–44. https://doi.org/10.1007/BF02504551

Masrai, A. (2019). Vocabulary and Reading Comprehension Revisited: Evidence for High-, Mid-, and Low-Frequency Vocabulary Knowledge. SAGE Open, 9(2), 215824401984518. https://doi.org/10.1177/2158244019845182

Merga, M. K. (2017). What motivates avid readers to maintain a regular reading habit in adulthood? The Australian Journal of Language and Literacy, 40(2), 146–156. https://doi.org/10.1007/BF03651992

Parmawati, A. (2018). The study correlation between reading habit and pronunciation ability at the second grade students of IKIP Siliwangi. ELTIN JOURNAL, Journal of English Language Teaching in Indonesia, 6(1), 46. https://doi.org/10.22460/eltin.v6i1.p46-52

Prescott, J. E., Bundschuh, K., Kazakoff, E. R., & Macaruso, P. (2018). Elementary school–wide implementation of a blended learning program for reading intervention. The Journal of Educational Research, 111(4), 497–506. https://doi.org/10.1080/00220671.2017.1302914

Rausch, J. R., Maxwell, S. E., & Kelley, K. (2003). Analytic Methods for Questions Pertaining to a Randomized Pretest, Posttest, Follow-Up Design. Journal of Clinical Child & Adolescent Psychology, 32(3), 467–486. https://doi.org/10.1207/S15374424JCCP3203_15

Ravens-Sieberer, U., Wille, N., Badia, X., Bonsel, G., Burström, K., Cavrini, G., Devlin, N., Egmar, A.-C., Gusi, N., Herdman, M., Jelsma, J., Kind, P., Olivares, P. R., Scalone, L., & Greiner, W. (2010). Feasibility, reliability, and validity of the EQ-5D-Y: results from a multinational study. Quality of Life Research, 19(6), 887–897. https://doi.org/10.1007/s11136-010-9649-x

Soodmand Afshar, H., & Movassagh, H. (2016). EAP education in Iran: Where does the problem lie? Where are we heading? Journal of English for Academic Purposes, 22, 132–151. https://doi.org/10.1016/j.jeap.2016.04.002

Stoller, F. L., & Nguyen, L. T. H. (2020). Reading habits of Vietnamese University English majors. Journal of English for Academic Purposes, 48, 100906. https://doi.org/10.1016/j.jeap.2020.100906

Tárraga-Mínguez, R., Gómez-Marí, I., & Sanz-Cervera, P. (2020). Interventions for Improving Reading Comprehension in Children with ASD: A Systematic Review. Behavioral Sciences, 11(1), 3. https://doi.org/10.3390/bs11010003

Tong, F., Irby, B. J., Lara-Alecio, R., Guerrero, C., Fan, Y., & Huerta, M. (2014). A Randomized Study of a Literacy-Integrated Science Intervention for Low-Socio-economic Status Middle School Students: Findings from first-year implementation. International Journal of Science Education, 36(12), 2083–2109. https://doi.org/10.1080/09500693.2014.883107

Wang, X.-W., Zhu, Y.-J., & Zhang, Y.-C. (2022). An empirical study of college students' reading engagement on academic achievement. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.1025754