

Promoting Reading Habits Via Online for Primary School Students

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ABSTRACT

The increasing integration of online platforms in primary education presents opportunities to enhance reading habits among young learners. This study investigates the effectiveness of an online reading intervention in promoting reading habits among Malaysian Year 4 students, guided by Larry Ferlazzo's motivational framework of autonomy, competence, relevance, and relatedness. A six-week program was implemented using interactive digital reading materials, structured tasks, and peer-sharing activities, with student progress monitored through reading logbooks and teacher observations. Quantitative analysis revealed significant improvements in students' reading engagement, including an increase in the average number of books read and vocabulary acquisition. The findings suggest that autonomy in book selection, relevance of reading tasks, competence in progressively challenging texts, and relatedness through guided support collectively foster intrinsic motivation and sustained reading habits. This study highlights the potential of online platforms as effective tools to provide the access to storybooks for cultivating independent and meaningful reading practices among primary school students in Malaysia.

Keywords: Reading habits, online learning, primary education, motivation, Ferlazzo's framework, Malaysia

INTRODUCTION

Reading is a fundamental literacy skill that forms the foundation for academic success, personal growth, and lifelong learning. The ability to read proficiently not only enhances comprehension and vocabulary acquisition but also fosters critical thinking, creativity, and independent learning skills. Recognising its importance, the Malaysian Ministry of Education has long emphasised the development of reading habits among students through nationwide initiatives such as the NILAM (Nadi Ilmu Amalan Membaca) program, reading campaigns, and various school-based literacy activities (Ministry of Education Malaysia, 2021). NILAM, for example, requires students to read a certain number of books annually and record their reading activities, with the aim of cultivating reading as a continuous habit.

Despite these initiatives, both national assessments and academic research have documented a worrying decline in reading interest among Malaysian primary school students. According to the Malaysian Education Blueprint (2013–2025), the percentage of students meeting satisfactory reading benchmarks has stagnated in recent years, while teacher observations frequently report low motivation towards reading tasks. Mokhtar et al. (2017) found that many students perceive reading as a compulsory school requirement rather than a leisure activity, leading to minimal voluntary reading outside of class. Similarly, Abdul Rahim and Harun (2018) noted that students often engage with reading materials only to fulfil program quotas such as NILAM, rather than for personal enjoyment. This lack of intrinsic motivation can impede language development and has been linked to weaker performance in language-based subjects, as well as reduced overall academic achievement.

Several factors contribute to this decline in reading engagement. The increasing dominance of digital entertainment such as mobile games, social media, and video streaming platforms directly competes for students' time and attention (Yunus & Aziz, 2019). Furthermore, many students face limited access to a wide range of appealing reading materials, particularly those that align with their personal interests or reflect their cultural experiences. Language preference also plays a significant role; students who are less confident in English may

find materials in that language challenging and disengaging, while Malay-language reading materials of high quality and relevance may be limited in school libraries. Additionally, school-assigned reading tasks may lack immediate relevance to students' everyday lives, creating a disconnect between the learning material and their lived experiences. Parental influence is another critical factor; in households where reading is not actively encouraged or modelled, children are less likely to develop sustained reading habits (Harji, Balakrishnan, & Letchumanan, 2016).

While these challenges persist, technological advancements offer new possibilities for revitalising reading culture. The integration of online learning platforms into literacy programs has the potential to provide students with a broader selection of reading materials, including e-books, interactive stories, and multimedia resources that cater to different learning preferences. These platforms can also incorporate gamification features such as quizzes, digital badges, and leaderboards to enhance motivation. In addition, they enable collaborative features such as discussion boards and peer recommendations, which can transform reading into a socially connected activity. This approach aligns with contemporary learning habits, as students are already accustomed to using digital devices for entertainment and communication. If designed effectively, such interventions can shift reading from a solitary, school-mandated activity to one that is engaging, relevant, and personally rewarding (Ahmad et al., 2020).

The present study is anchored in Larry Ferlazzo's motivational framework, which outlines four key elements for fostering intrinsic motivation: autonomy, competence, relevance, and relatedness. Autonomy empowers learners to make meaningful choices, such as selecting books based on personal interest. Competence builds confidence by ensuring tasks are challenging yet achievable, often supported through feedback and skill-building activities. Relevance connects learning materials to the learner's own experiences and goals, while relatedness promotes a sense of belonging through peer and teacher interactions. Applying this framework to the promotion of reading provides a structured approach for designing interventions that not only capture students' interest but also sustain their motivation over time.

Guided by this framework, the current study aimed to investigate the effectiveness of an online reading intervention in promoting reading habits among Malaysian primary school students. Specifically, it sought to: (1) examine the development of students' reading motivation through the intervention (2) measure changes in the frequency of their reading activities; and (3) identify shifts in their attitudes towards independent reading. In line with these objectives, the study addressed the following research questions: How does participation in the intervention influence students' motivation to read? What changes occur in their reading frequency after the intervention? In what ways does the intervention shape their perceptions and enjoyment of reading? The findings are expected to contribute to the growing body of literature on digital literacy strategies and provide practical guidance for educators and policymakers seeking to integrate technology into literacy development initiatives in culturally relevant and pedagogically meaningful ways.

LITERATURE REVIEW

Reading is a multidimensional process that involves both cognitive and affective engagement, where learners integrate new information, monitor comprehension, and sustain motivation (Butterfuss, Kim & Kendeou, 2020; Wigfield et al., 2020). Beyond decoding, effective reading requires motivation and positive attitudes, as these influence the amount and quality of reading practice students undertake. In particular, studies have consistently shown that motivation and reading self-concept predict reading achievement and engagement (Xiao, 2023).

In ESL contexts, reading is closely tied to language acquisition. Extensive reading supports vocabulary growth, grammar development, and comprehension, particularly when learners interact with meaningful texts rather than rote exercises (Krashen, 2004; Xie & Yeung, 2022). Recent evidence suggests that digital platforms enhance L2 vocabulary learning by providing glosses, scaffolding, and accessible texts matched to proficiency levels (Education and Information Technologies, 2023). This is especially relevant for Malaysian learners, who often engage with English texts for academic purposes but show limited voluntary reading (Thang & Lee, 2017; Kaur & Sidhu, 2022).

Digital reading environments also reshape traditional reading behaviours. E-books, multimedia texts, and online platforms expand access to diverse materials, encourage flexible reading habits, and foster engagement through

gamification and interactivity (Luo & Yang, 2018; Jeong, 2021). These environments can also promote collaboration through peer recommendations and shared discussions, aligning with the social dimension of reading motivation (Niemi & Multisilta, 2016). However, research cautions that comprehension and sustained focus may differ between print and digital reading (Clinton, 2019), suggesting the need for interventions that combine accessibility with structured support.

Motivation remains central to sustaining reading habits. Ferlazzo's (2015) framework highlights autonomy, competence, relevance, and relatedness as key drivers of intrinsic motivation. Autonomy allows students to choose texts that reflect their interests; competence builds confidence through scaffolded challenges; relevance connects reading to learners' experiences and goals; and relatedness ensures that supportive relationships with teachers and peers sustain engagement. Studies in ESL classrooms show that interventions that integrate these elements enhance student persistence and ownership of learning (Deci & Ryan, 2000; Eccles & Wigfield, 2002). Yet, in Malaysia, intrinsic motivation for reading remains a challenge, with students often reading only to fulfil program requirements such as NILAM rather than for personal interest (Mokhtar et al., 2017; Abdul Rahim & Harun, 2018). This highlights the need for targeted, motivation-driven interventions.

Taken together, recent scholarship suggests that digital platforms, when combined with motivational principles, have the potential to transform reading from a compulsory school task into a meaningful, self-sustained habit. Anchoring an intervention in Ferlazzo's framework offers a structured way to cultivate autonomy, competence, relevance, and relatedness, particularly for young ESL learners in Malaysia where literacy engagement continues to be a pressing concern.

METHODOLOGY

This study employed a quantitative research design to investigate strategies for improving reading habits among Year 4 ESL learners. Quantitative methods were chosen because they provide systematic, numerical insights into patterns of reading engagement and allow researchers to measure the extent of behavioural change over time (Bhandari, 2020). While qualitative methods can capture students' perceptions or experiences in greater depth, the primary purpose of this study was to identify measurable trends in book reading, vocabulary acquisition, and independent choice. Hence, descriptive statistics served as the foundation for analysis, supported by interpretive discussion to connect outcomes with the theoretical framework guiding the intervention.

Research Design and Theoretical Framework

The design of the intervention was guided by Ferlazzo's (2015) motivational framework, which emphasizes autonomy, competence, relevance, and relatedness as key drivers of student motivation. These principles were intentionally embedded into every aspect of the program:

- **Autonomy:** Students were allowed to select storybooks according to personal interests, giving them ownership over their reading choices.
- **Competence:** CEFR-aligned texts at A1 and A2 levels ensured that materials were both accessible and incrementally challenging, allowing students to experience mastery.
- **Relevance:** Vocabulary logging tasks linked reading to tangible learning outcomes by encouraging students to identify and record five new words per book.
- **Relatedness:** Teacher guidance provided initial encouragement and accountability, which was gradually reduced to encourage independence.

This integration of motivational theory distinguishes the present study from previous interventions that emphasized reading frequency without directly considering the psychological factors that sustain literacy engagement.

Context and Participants

The research was conducted at a government primary school in Kuantan, Pahang. The school represents a semi-urban context with moderate access to digital resources, making it an ideal setting for exploring how online interventions could supplement limited reading materials typically available in such environments.

Participants consisted of 25 Year 4 students (10 boys and 15 girls). The selection criteria required that students possessed basic literacy skills and prior exposure to digital platforms to ensure that difficulties with technology did not interfere with the study's objectives. Participation was voluntary and conducted with the awareness of both the school administration and parents. A single English teacher with five years of experience facilitated the intervention, ensuring consistency in implementation and support.

Reading Materials

The reading materials comprised 60 storybooks sourced from Monkey Pen and Booksie.org, platforms that provide free and accessible digital texts for children. The texts were carefully screened for CEFR alignment using the Text Inspector tool to ensure suitability for A1 and A2 readers. Genres included fantasy, folklore, biography, and adventure, providing a wide range of content to appeal to diverse student interests. Visual elements, particularly picture books, were incorporated to scaffold comprehension and sustain motivation. By including multiple genres and text types, the materials not only met linguistic needs but also provided opportunities for cultural and cognitive enrichment.

Procedure and Duration

The intervention was conducted over six weeks, and this timeframe was selected for three key reasons.

1. **Pedagogical feasibility:** Short-term interventions can be long enough to produce observable changes in student behaviour but short enough to sustain attention among younger learners. Previous studies show that even 3 to 5 weeks of school-based interventions can generate meaningful behavioural changes (List & Samek, 2015). Thus, six weeks was expected to yield measurable improvements while avoiding participant fatigue or attrition.
2. **School calendar alignment:** The six-week duration corresponded to a segment of the school term, ensuring that the intervention did not clash with examinations or extended holidays. Structuring the program around the academic calendar is consistent with other reading intervention studies that typically span between four and ten weeks (Santi et al., 2025).
3. **Habit formation considerations:** Habit formation research suggests that while strong behavioural automaticity may require two to five months on average (Lally et al., 2010; Phillips et al., 2023), early stages of habit development including increases in frequency and consistency can be observed in shorter timeframes. Six weeks thus represented a pragmatic middle ground: long enough to allow students to establish routines, but not so long as to risk loss of momentum.

During the intervention, students received digital copies of the storybooks through WhatsApp. They were required to record each reading in online logbooks, which included the book's title, author, number of pages, date of completion, and five newly learned vocabulary words. Teacher guidance followed a gradual-release model. In Week 1, the teacher provided five instances of support (e.g., reminders, book recommendations). This was reduced each week until Week 6, where no direct guidance was given. This phased withdrawal reflected the study's focus on transitioning students from externally supported to self-regulated reading.

Tools and Data Collection

Data were primarily collected through students' digital reading logbooks. These were compiled weekly via WhatsApp, which was chosen for its accessibility and widespread use among Malaysian households. The data were organized using Microsoft Excel and subsequently analysed with SPSS. Key variables included:

- Number of books read per week
- Number of unique book selections
- CEFR level of texts (A1 vs. A2)
- Vocabulary words recorded

Descriptive statistics (means, medians, standard deviations) were used to establish patterns and variability in student behaviour. While the analysis was quantitative, interpretive discussion linked the numerical trends to Ferlazzo's motivational framework to provide deeper insights.

Limitations of the Methodological Design

This study has several limitations. First, the sample size was restricted to 25 students from one school, which limits the generalizability of the findings. Future studies should include both rural and urban schools to strengthen external validity.

Second, as the intervention was conducted online, household factors influenced student engagement. Parental involvement varied, and differences in home environments created unequal opportunities for reading practice.

Third, internet connectivity posed challenges. Students with unstable connections faced delays in accessing materials, which may have affected participation.

Finally, the six-week duration, though practical, restricted the scope of the study. A longer intervention may have provided clearer evidence of sustained reading habit development (Lally et al., 2010; Phillips et al., 2023).

DATA ANALYSIS AND INTERPRETATION

This section presents the analysis of students' reading habits during the six-week online reading intervention. The data were obtained from reading logbooks maintained by 25 Year 4 students and analysed using descriptive statistics in SPSS. Results are discussed according to Ferlazzo's four motivational principles of relatedness, autonomy, competence, and relevance as these framed the intervention. Overall, findings indicate a positive impact on reading frequency, book selection, text difficulty, and vocabulary acquisition. At the same time, fluctuations such as the Week 5 decline in autonomy highlight challenges in sustaining independent reading.

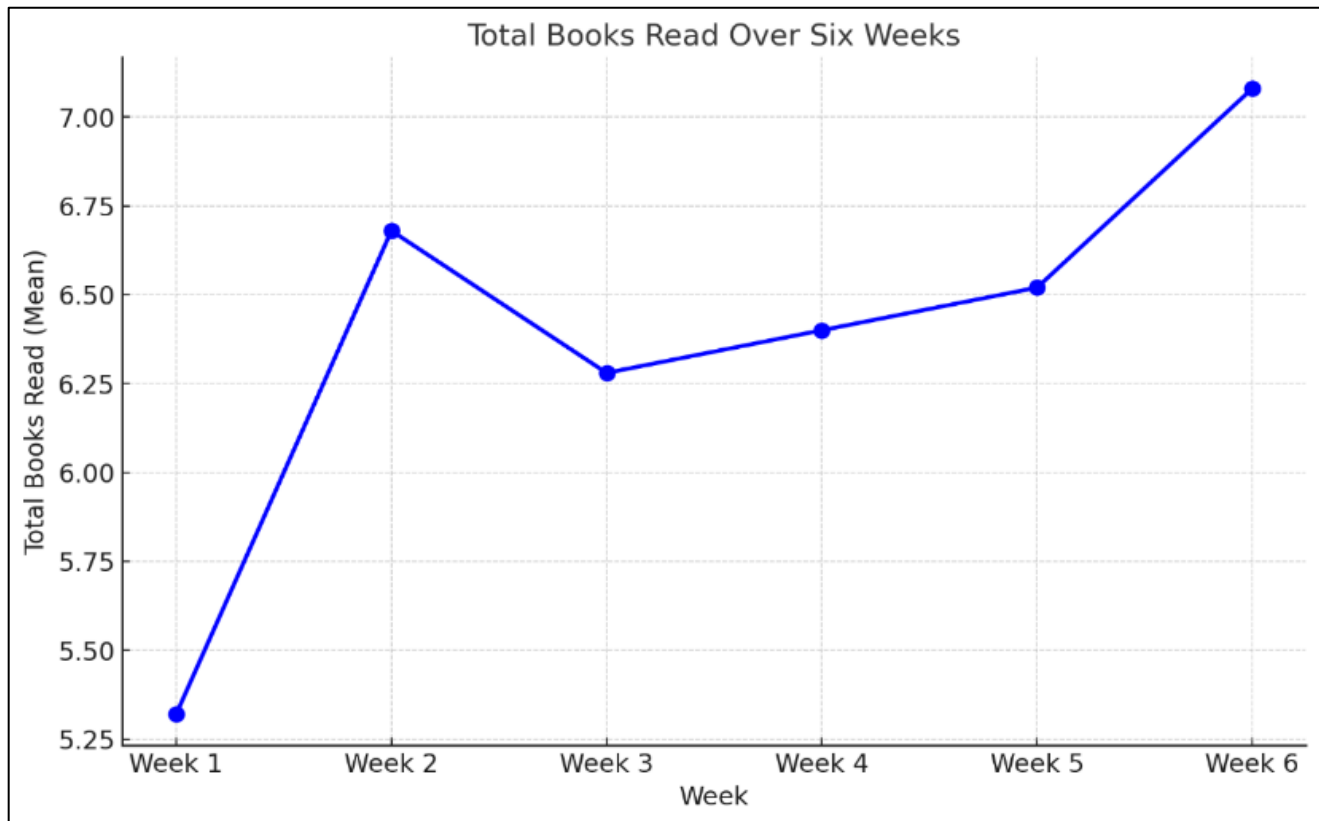
Reading Frequency and Teacher Guidance (Relatedness)

One of the most important findings relates to the overall increase in the number of books read over the six weeks. As shown in Table 1 and Figure 1, the mean number of books read rose from 5.32 in Week 1 to 7.08 in Week 6. The median also increased steadily, and the standard deviation narrowed over time, suggesting that students became more consistent in their reading patterns. In the early weeks, individual differences were wide as some students read more than ten books while others read only a few but by Week 6, students had developed more regular reading habits. This trend supports the argument that structured interventions can establish sustainable routines even among young learners.

Table 1. Descriptive statistics of students' reading progress (Weeks 1–6). Reading frequency increased steadily across the six weeks, with reduced variation among students.

		Statistics					
		Total books read in Week 1	Total books read in Week 2	Total books read in Week 3	Total books read in Week 4	Total books read in Week 5	Total books read in Week 6
N	Valid	25	25	25	25	25	25
	Missing	0	0	0	0	0	0
Mean		5.3200	6.6800	6.2800	6.4000	6.5200	7.0800
Median		4.0000	5.0000	5.0000	6.0000	6.0000	7.0000
Mode		4.00	5.00	5.00	6.00	7.00	6.00 ^a
Std. Deviation		2.30434	2.73435	1.83757	.81650	1.68622	1.15181
Minimum		4.00	4.00	5.00	5.00	4.00	5.00
Maximum		10.00	13.00	9.00	8.00	11.00	9.00

Figure 1 The overall trend shows steady growth in reading frequency based on number of books read weekly.

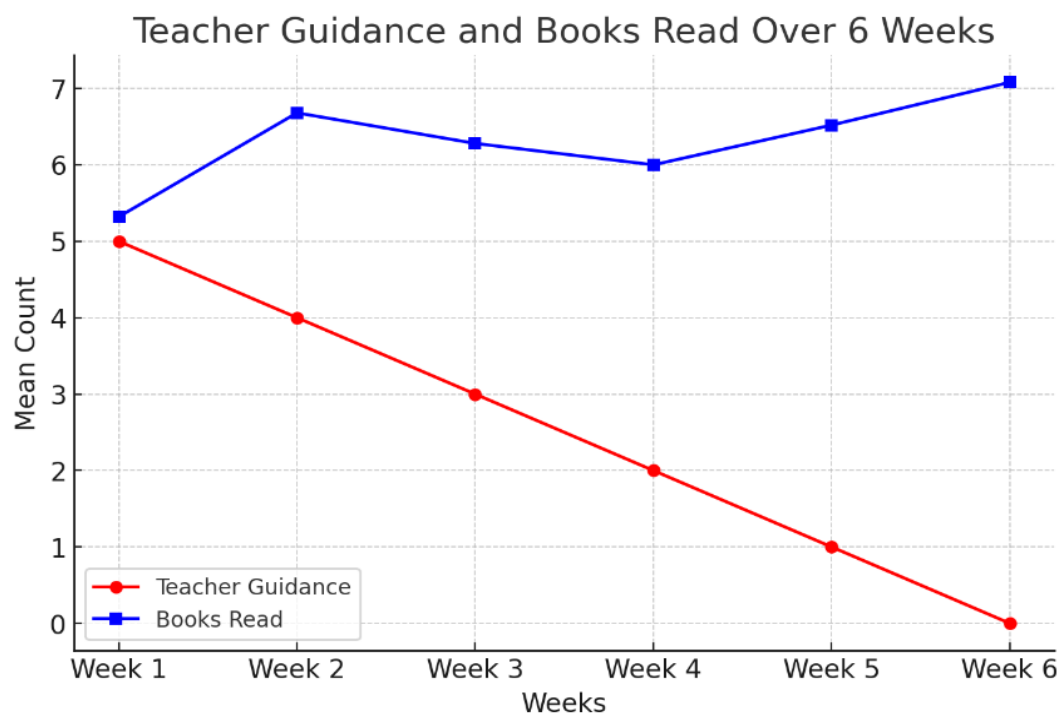


Equally significant was the role of teacher guidance. Teacher involvement was highest in Week 1 and gradually declined until no direct guidance was provided in Week 6 (see Table 2). Despite this reduction, students' reading frequency did not decrease; in fact, it continued to rise. Table 2 and Figure 2 illustrate this inverse relationship between teacher support and books read. The data suggest that teacher guidance in the initial weeks provided crucial scaffolding, establishing a sense of accountability and relatedness. Once this foundation was laid, students were able to sustain reading independently. This finding is consistent with Ferlazzo's assertion that relatedness such as supportive relationships with teachers can act as a springboard for intrinsic motivation

Table 2. Descriptive statistics of teacher guidance and books read (Weeks 1–6). Teacher support declined over time, yet reading frequency remained stable or improved, indicating growing independence.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Teacher_Guidance_W1	25	5.00	5.00	5.0000	.00000
Teacher_Guidance_W2	25	4.00	4.00	4.0000	.00000
Teacher_Guidance_W3	25	3.00	3.00	3.0000	.00000
Teacher_Guidance_W4	25	2.00	2.00	2.0000	.00000
Teacher_Guidance_W5	25	1.00	1.00	1.0000	.00000
Teacher_Guidance_W6	25	.00	.00	.0000	.00000
Books_Read_Week_1	25	4.00	10.00	5.3200	2.30434
Books_Read_Week_2	25	4.00	13.00	6.6800	2.73435
Books_Read_Week_3	25	5.00	9.00	6.2800	1.83757
Books_Read_Week_4	25	5.00	8.00	6.4000	.81650
Books_Read_Week_5	25	4.00	11.00	6.5200	1.68622
Books_Read_Week_6	25	5.00	9.00	7.0800	1.15181
Valid N (listwise)	25				

Figure 2. Teacher guidance versus books read (Weeks 1–6). As teacher support declined, students maintained or increased reading, highlighting the role of early scaffolding.



Autonomy and Book Selection

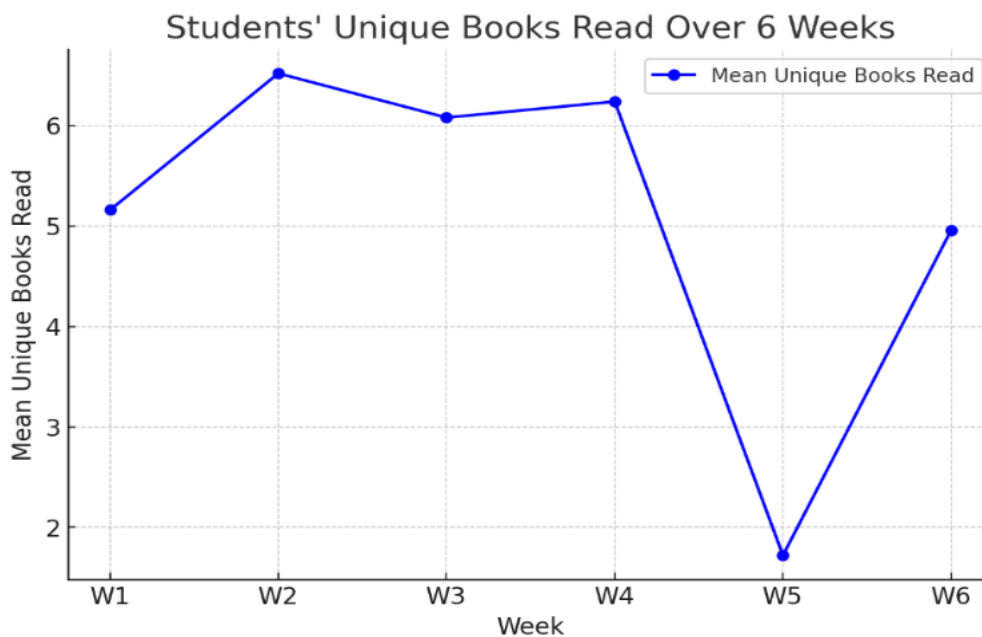
Autonomy was reflected in students' ability to select their own reading material. During the first four weeks, students actively explored the 60 available storybooks, with the mean number of unique books chosen remaining relatively stable. However, when teacher guidance was fully withdrawn in Week 5, there was a sharp decline: the average number of newly selected books dropped from 6.24 in Week 4 to only 1.72 in Week 5. This sudden dip, shown in Table 3 and Figure 3, indicates that many students initially struggled to sustain book selection when external scaffolding was removed.

By Week 6, however, the average rose again to 4.96, suggesting that students were beginning to adapt to self-directed reading. The rebound shows that autonomy is not an immediate outcome but a developmental process. Students required time to build confidence in navigating choices independently. This aligns with the idea that autonomy, while crucial for motivation, must be gradually nurtured. Without transitional scaffolds, learners may temporarily falter, as demonstrated in the Week 5 decline.

Table 3. Descriptive statistics of unique books selected by students (Weeks 1–6). A sharp decline in Week 5 highlights difficulty in sustaining autonomy without teacher support, followed by partial recovery in Week 6.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Unique_Books_W1	25	3.00	10.00	5.1600	2.21133
Unique_Books_W2	25	4.00	12.00	6.5200	2.48529
Unique_Books_W3	25	5.00	9.00	6.0800	1.68127
Unique_Books_W4	25	5.00	7.00	6.2400	.72342
Unique_Books_W5	25	.00	4.00	1.7200	1.06145
Unique_Books_W6	25	3.00	9.00	4.9600	1.27410
Valid N (listwise)	25				

Figure 3. Mean number of unique books selected weekly (Weeks 1–6). Autonomy dipped sharply in Week 5 but rebounded in Week 6.



Competence and Text Difficulty

Competence was assessed through students' choice of books at different CEFR levels. In the early weeks, A1 books were more popular, reflecting students' preference for accessible texts with simpler vocabulary and sentence structures. For instance, Week 2 recorded the highest mean for A1 books (3.64 per student). However, by Week 4, A1 book reading dropped to nearly zero, and students increasingly selected A2 texts. As shown in Tables 4, 5 and Figure 4, the mean number of A2 books read climbed steadily, peaking in Week 4 (6.40 per student) and remaining consistently high through Week 6.

This transition demonstrates the growth of reading competence. Once students gained confidence with easier texts, they sought more challenging material, reflecting mastery and the desire to extend their skills. This pattern supports Ferlazzo's competence principle: learners are motivated when tasks are challenging yet achievable. The data also align with Vygotsky's zone of proximal development, where gradual scaffolding encourages students to push beyond their comfort zone.

Table 4. Descriptive statistics of A1 texts read (Weeks 1–6). Engagement with beginner-level books peaked in Week 2 before dropping to near zero as students transitioned to more advanced texts.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
A1_Books_W1	25	.00	4.00	1.7200	1.02144
A1_Books_W2	25	2.00	7.00	3.6400	1.82300
A1_Books_W3	25	.00	4.00	1.7200	.89069
A1_Books_W4	25	.00	.00	.0000	.00000
A1_Books_W5	25	2.00	4.00	3.0800	.64031
A1_Books_W6	25	.00	2.00	1.3600	.70000
Valid N (listwise)	25				

Table 4 shows that student engagement with beginner-level books of A1 peaked in Week 2 before dropping to near zero as students transitioned to more advanced texts.

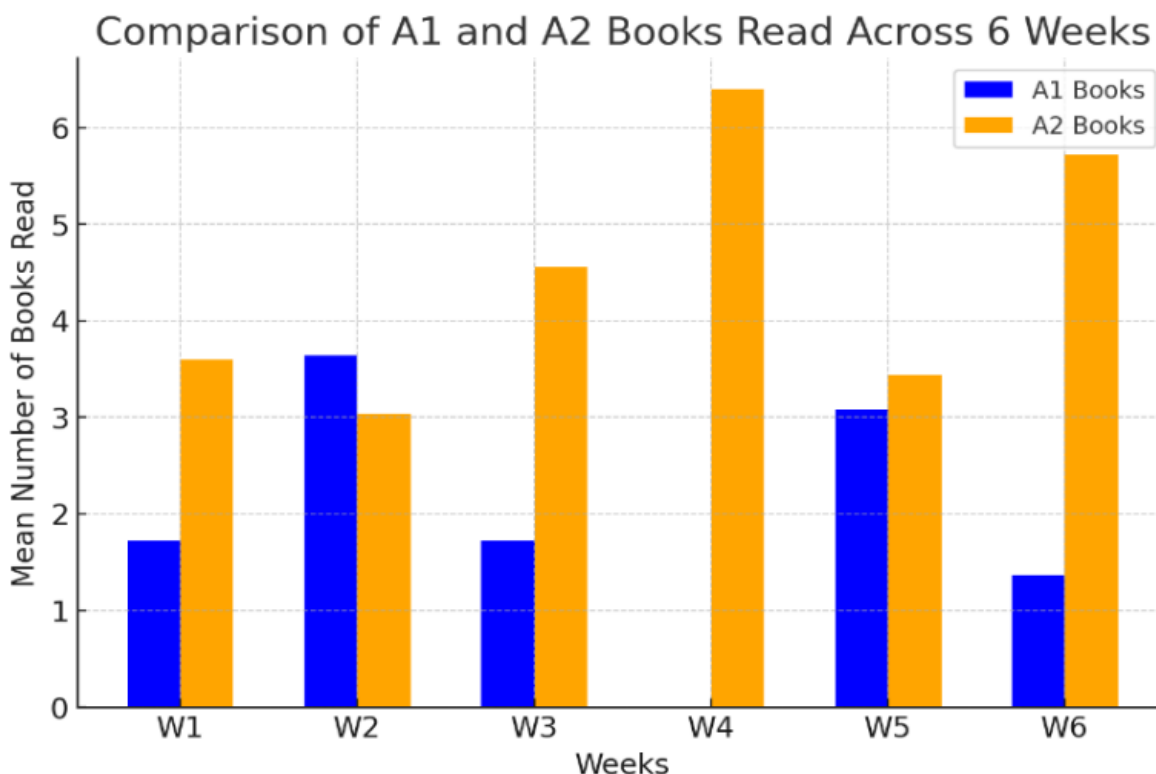
Table 5 Descriptive statistics of A2 texts read (Weeks 1–6).

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
A2_Books_W1	25	1.00	8.00	3.6000	1.95789
A2_Books_W2	25	2.00	6.00	3.0400	1.13578
A2_Books_W3	25	3.00	8.00	4.5600	1.47422
A2_Books_W4	25	5.00	8.00	6.4000	.81650
A2_Books_W5	25	1.00	8.00	3.4400	1.70978
A2_Books_W6	25	3.00	8.00	5.7200	1.24231
Valid N (listwise)	25				

Table 5 shows that students steadily increased their selection of A2 books from Week 2 onward, demonstrating growth in reading competence.

Figure 4 below summarises the comparison on the number of books of A1 and A2 read over the 6-week intervention. The findings show that students gradually shifted reading from simpler A1 to higher readability A2 books, showing autonomy and increased competence.

Figure 4. Comparison on the number of books of A1 and A2 read (Weeks 1–6).



Relevance and Vocabulary Recorded

Relevance was measured by the number of vocabulary words recorded in students' logbooks. The results, presented in Tables 6 and 7 show a steady increase in vocabulary recorded: the weekly average rose from 26.6 words in Week 1 to 35.4 words in Week 6. While there was a slight dip in Week 3, the overall upward trajectory suggests that students became more engaged with the texts as the intervention progressed.

Table 6. Number of vocabulary words recorded weekly (Weeks 1–6).

Case Processing Summary						
	Included		Cases Excluded		Total	
	N	Percent	N	Percent	N	Percent
Number of vocab words recorded in Week 1	25	100.0%	0	0.0%	25	100.0%
Number of vocab words recorded in Week 2	25	100.0%	0	0.0%	25	100.0%
Number of vocab words recorded in Week 3	25	100.0%	0	0.0%	25	100.0%
Number of vocab words recorded in Week 4	25	100.0%	0	0.0%	25	100.0%
Number of vocab words recorded in Week 5	25	100.0%	0	0.0%	25	100.0%
Number of vocab words recorded in Week 6	25	100.0%	0	0.0%	25	100.0%

Table 6 shows the number of vocabularies recorded generally increased, despite a minor dip in Week 3 (shown in Table 7)

In addition to quantity, the quality of vocabulary also improved. Early logs contained simpler, high-frequency words such as *naughty*, while later weeks included more complex terms such as *gravitational*. This shift suggests that students were encountering and engaging with progressively richer texts, reflecting both improved reading competence and deeper interaction with material.

Table 7. Total vocabulary recoded across six weeks.

Report						
	Number of vocab words recorded in Week 1	Number of vocab words recorded in Week 2	Number of vocab words recorded in Week 3	Number of vocab words recorded in Week 4	Number of vocab words recorded in Week 5	Number of vocab words recorded in Week 6
Mean	26.6000	33.4000	31.4000	32.0000	32.6000	35.4000
N	25	25	25	25	25	25
Std. Deviation	11.52172	13.67175	9.18785	4.08248	8.43109	5.75905

Table 7 shows students expanded their vocabulary from simpler to more complex words, reflecting deeper engagement with texts.

Nevertheless, vocabulary logging has limitations. Recording words alone does not confirm comprehension or long-term retention. It is possible that some students noted unfamiliar words without fully understanding them or using them in context. Future interventions could strengthen this component by incorporating comprehension checks, requiring students to apply words in sentences, or encouraging discussions around new vocabulary.

Overall Patterns

Taken together, the findings demonstrate the interconnected impact of Ferlazzo’s four motivational principles on reading engagement. Relatedness, through teacher guidance, laid the foundation for reading consistency. Autonomy, though initially challenging, eventually enabled students to navigate book selection independently. Competence developed as students confidently transitioned from A1 to A2 texts, and relevance was reinforced through consistent vocabulary engagement.

At the same time, the Week 5 dip in autonomy and the limitations of vocabulary logging remind us that reading development is not linear. Students may temporarily falter when transitioning to greater independence, and surface-level measures such as vocabulary counts do not fully capture comprehension. Acknowledging both the successes and the struggles provides a more balanced and credible picture of the intervention's impact.

DISCUSSION AND CONCLUSION

This study examined the effectiveness of an online reading intervention grounded in Ferlazzo's motivational principles; autonomy, competence, relevance, and relatedness in promoting reading habits among Year 4 students in a Malaysian ESL context. Over six weeks, students showed increased engagement, with more books read and vocabulary acquired. While these findings demonstrate the potential of motivationally structured digital interventions, the results also reveal the complexities of sustaining self-directed reading.

One key contribution of this study lies in its application of Ferlazzo's framework to Malaysian primary ESL learners, an area underexplored in literacy research. Unlike earlier studies that primarily document reading frequency or attitudes, this intervention systematically embedded autonomy, competence, relevance, and relatedness into program design. The steady shift from guided support toward independent reading suggests that combining digital platforms with motivational scaffolding can nurture both engagement and ownership in young readers.

The results, however, also highlight transitional challenges. The sharp decline in the number of unique books read in Week 5, following the withdrawal of teacher guidance, indicates that students initially struggled with autonomy. This temporary setback suggests that self-regulated reading requires an adjustment period and may benefit from gradual scaffolding or peer support mechanisms. Similarly, while vocabulary acquisition increased consistently, recording words does not necessarily confirm comprehension. Future interventions should triangulate vocabulary growth with comprehension checks or evidence of word use in context to confirm meaningful learning.

Competence development was evident as students transitioned from simpler A1 to more challenging A2 texts, reflecting growing confidence and mastery. Relevance was strengthened through logbook tasks, where vocabulary recording provided a sense of purpose and connection to learning goals. Relatedness was critical in establishing early reading habits, with structured teacher support serving as a catalyst for later independence. Together, these findings affirm the interdependence of motivational principles in sustaining literacy engagement.

Methodologically, the six-week timeframe provided sufficient data to observe short-term patterns but may not capture long-term sustainability of reading habits. External factors such as parental involvement, home environment, or internet connectivity were not controlled, yet they may have shaped outcomes. These limitations point to the need for extended studies that integrate qualitative insights, such as student reflections or teacher interviews, to complement quantitative measures.

Theoretically, this study extends motivational literacy research by demonstrating the applicability of Ferlazzo's framework in a Southeast Asian ESL context. Practically, it provides educators with a model for designing digital interventions that balance structure and independence. By leveraging accessible platforms such as WhatsApp and CEFR-aligned storybooks, schools with limited resources can foster meaningful engagement with reading.

In conclusion, the study shows that an online, motivation-driven intervention can cultivate independent reading habits among Malaysian ESL learners. While students demonstrated steady growth in reading frequency and vocabulary, the temporary decline in autonomy underscores the importance of sustained scaffolding. Despite its limitations, this research advances the field by highlighting how motivational principles, when systematically applied, can address persistent challenges in literacy development. For policymakers and educators, the findings offer practical pathways to integrate digital tools and motivational strategies in promoting a stronger reading culture in Malaysia.

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REFERENCES

1. Alcott, L. (2021, October 21). Reading on-screen vs reading in print: What's the difference for learning? National Library of New Zealand Te Puna Mātauranga o Aotearoa. Retrieved from <https://natlib.govt.nz/blog/posts/reading-on-screen-vs-reading-in-print-whats-the-difference-for-learning>
2. Annamalai, N. (2021). Online learning during COVID-19 pandemic. are Malaysian high school students ready? *Pertanika Journal of Social Sciences and Humanities*, 29(3). <https://doi.org/10.47836/pjssh.29.3.06>
3. Annamalai, S., & Muniandy, B. (2019). Reading habit and its influence on academic achievement among Malaysian university students. *Journal of Education and Learning*, 13(3), 425–434. <https://doi.org/10.11591/edulearn.v13i3.13058>
4. Akbari, Z. (2015). Current challenges in teaching/learning English for EFL learners: The case of junior high school and high school. *Procedia - Social and Behavioral Sciences*, 199, 394–401.
5. Arshad, S. M. B. M. (2023). EFFECTIVE TECHNIQUES FOR EFL TEACHERS AND LEARNERS TO INCREASE BEGINNER'S LEVEL VOCABULARY. *Science and innovation*, 2(B12), 19-27.
6. Bhandari, P. (2020, June 12). What is quantitative research? Definition, uses & methods. Scribbr. <https://www.scribbr.com/methodology/quantitative-research/>
7. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall. Retrieved from <https://www.worldcat.org/title/social-foundations-of-thought-and-action-a-social-cognitive-theory/oclc/13203940>
8. Butterfuss, R., Kim, J., & Kendeou, P. (2020). Reading Comprehension. In *Oxford Research Encyclopedia of Education*. Oxford University Press. Oxford Research Encyclopedia
9. Cline, F., Johnstone, C., & King, T. (2006, July). Focus group reactions to three definitions of reading (as ... Retrieved from <https://files.eric.ed.gov/fulltext/ED506575.pdf>
10. Clinton, V. (2019). Reading from paper compared to screens: A systematic review and meta-analysis. *Journal of Research in Reading*, 42(2), 288–325. <https://doi.org/10.1111/1467-9817.12269>
11. Conradi Smith, K., Morrison, T. G., & Seaman, J. (2020). The role of attitudes, motivation, and engagement in reading achievement: A meta-analytic review. *Reading Research Quarterly*, 55(2), 205–233. <https://doi.org/10.1002/rrq.264>
12. Council of Europe. (2020). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment — Companion Volume*. Council of Europe. <https://book.coe.int/en/education-and-modern-languages/8152-common-european-framework-of-reference-for-languages-learning-teaching-assessment-companion-volume.html>
13. Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
14. Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review of Psychology*, 53(1), 109–132. <https://doi.org/10.1146/annurev.psych.53.100901.135153>
15. Education and Information Technologies. (2023). Second and Foreign Language Vocabulary Learning through Digital Reading: A Meta-Analysis. *Education and Information Technologies*, 28, 11969. <https://doi.org/10.1007/s10639-023-11969-1> SpringerLink
16. Ferlazzo, L. (2015, September 14). Strategies for helping students motivate themselves. Edutopia. Retrieved February 10, 2023, from <https://www.edutopia.org/blog/strategies-helping-students-motivate-themselves-larry-ferlazzo>
17. Frankel, K., Row, M., Pearson, P. D., & Becker, B. (2016, November). (PDF) from "what is reading?" to what is literacy? Retrieved from https://www.researchgate.net/publication/311946786_From_What_is_Reading_to_What_is_Literacy

18. Gao, Y., Liu, X., Nichols, E. S., & Zheng, L. (2019, November). First and second language reading difficulty among Chinese ... Retrieved from https://pure.mpg.de/rest/items/item_3182436_2/component/file_3182437/content
19. Harji, M. B., Balakrishnan, K., & Letchumanan, K. (2016). SPIRE project: Parental involvement in young children's ESL reading development. *English Language Teaching*, 9(12), 1–15. <https://doi.org/10.5539/elt.v9n12p1>
20. Kaur, N., & Sidhu, G. K. (2022). Exploring Malaysian undergraduates' reading habits and preferences: Implications for English language teaching. *Pertanika Journal of Social Sciences & Humanities*, 30(1), 123–139. <https://doi.org/10.47836/pjssh.30.1.07>
21. Khairuddin, Z. (2013). A study of students' reading interests in a second language. *International Education Studies*, 6(11). <https://doi.org/10.5539/ies.v6n11p160>
22. Krashen (2004) (The Power of Reading, 2nd ed.): Krashen, S. D. (2004). *The power of reading: Insights from the research* (2nd ed.). Libraries Unlimited. https://www.sdkrashen.com/content/books/the_power_of_reading.pdf
23. Lally, P., Van Jaarsveld, C. H. M., Potts, H. W. W., & Wardle, J. (2010). How are habits formed: Modelling habit formation in the real world. *European Journal of Social Psychology*, 40(6), 998–1009. <https://doi.org/10.1002/ejsp.674>
24. Lam, K. W., Jusoh, N., & Kamaruzaman, N. (2021, March). (PDF) online learning experience during covid-19 pandemic ... Retrieved from https://www.researchgate.net/publication/353878989_Online_Learning_Experience_during_Covid19_Pandemic_An_Online_Survey_among_Malaysian_Polytechnic_Students
25. Larry Ferlazzo (2015). Eight Ways To Help English Language Learners Feel Motivated To Read & Write. Retrieved from <https://www.teachingenglish.org.uk/blogs/larry-ferlazzo/eight-ways-help-english-language-learners-feel-motivated-read-write>
26. Li, C., & Dewaele, J. M. (2020). The predictive effects of trait emotional intelligence and online reading habits on English achievement. *System*, 93, 102313. <https://doi.org/10.1016/j.system.2020.102313>
27. Lim, W. M. (2024). What Is Quantitative Research? An Overview and Guidelines. *Australasian Marketing Journal*, 0(0). <https://doi.org/10.1177/14413582241264622>
28. Lim, S., & Tan-Chia, H. (2023). Developing EFL students' multimodal literacy with the use of infographics. *Asian-Pacific Journal of Second and Foreign Language Education*. <https://doi.org/10.1186/s40862-025-00322-3>
29. List, J. A., & Samek, A. (2015). The behavioralist as nutritionist: Leveraging behavioral economics to improve child food choice and consumption. *Journal of Health Economics*, 39, 13–24. <https://doi.org/10.1016/j.jhealeco.2014.10.002>
30. Luo, W., & Yang, Y. (2018). Effects of authentic online materials on learners' engagement and reading development. *Language Learning & Technology*, 22(3), 87–102. <https://doi.org/10.125/44682>
31. Magnusson, K. (2019). To what extent and how are reading comprehension strategies part of language arts instruction? A study of lower secondary classrooms. *Reading Research Quarterly*, 54(2), 145–169. ila.onlinelibrary.wiley.com
32. Niemi, H., & Multisilta, J. (2016). Digital storytelling promoting twenty-first century skills and student engagement. *Technology, Pedagogy and Education*, 25(4), 451–468. <https://doi.org/10.1080/1475939X.2015.1074610>
33. Panigrahi, R., & Patel, V. (2021). Exploring the role of metacognition in reading comprehension: A review of recent research. *Journal of Language and Linguistic Studies*, 17(1), 239–251. <https://doi.org/10.17263/jlls.904338>
34. Pérez Buelvas, H. G. (2024). Enhancing reading skills through scaffolding strategies in eighth-grade EFL students. *HOW*, 31(2), 70–88. <https://doi.org/10.19183/how.31.2.78>
35. Phillips, A., Stautz, K., & Gardner, B. (2023). Time to form a habit: A systematic review and meta-analysis of health behaviour habit formation and its determinants. *Health Psychology Review*, 17(2), 243–265. <https://doi.org/10.1080/17437199.2022.2163975>
36. Santi, K. L., McConnell, S. R., Vaughn, S., & Wanzek, J. (2025). Reading interventions to support English learners with disabilities in high school: A systematic review. *Education Sciences*, 15(2), 223. <https://doi.org/10.3390/educsci15020223>

37. Schiefele, U., Schaffner, E., Möller, J., & Wigfield, A. (2016). Dimensions of reading motivation and their relation to reading behavior and competence. *Reading Research Quarterly*, 47(4), 427–463. <https://doi.org/10.1002/rrq.162>
38. Schütz, R. E. (1998, April). Stephen Krashen's Theory of Second Language Acquisition. Retrieved from <https://www.sk.com.br/sk-krash-english.html>
39. Sivapalan, S., Subramaniam, G., & Wan Yahya, W. R. (2020). English language reading habits of Malaysian university students. *Malaysian Journal of Learning and Instruction*, 17(1), 145–165. <https://doi.org/10.32890/mjli2020.17.1.6>
40. Skinner, B. F. (1957). *Verbal behavior*. Appleton-Century-Crofts.
<https://archive.org/details/verbalbehavior00bfs>The Inspectorate, Ministry of Education Malaysia. (2019) *Buku Panduan Bahasa Inggeris*. <https://www.moe.gov.my/menumedia/media-cetak/penerbitan/buku-panduan/3888-buku-panduan-bahasa-inggeris/file>
41. Sun, X. (2022). Scaffolded extensive reading: A concept drawn from two EFL reading programmes [Article]. *Language Teaching Research*. (Pre-published online). <https://doi.org/10.1177/13621688221141297> SAGE Journals
42. Thang, S. M., & Lee, K. W. (2017). Investigating the reading habits of Malaysian ESL learners in the digital era. *The English Teacher*, 46(2), 55–68. <https://journals.melta.org.my/index.php/tet/article/view/424>
43. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press. Retrieved from <https://www.hup.harvard.edu/catalog.php?isbn=9780674576292>
44. Wigfield, A., Gladstone, J. R., & Turci, L. (2020). Beyond cognition: Reading motivation and reading comprehension. *Child Development Perspectives*, 14(4), 226–231. <https://doi.org/10.1111/cdep.12383>
45. Xiao, X.-Y. (2023). How motivational constructs predict reading amount and reading achievement: The role of reading attitude and reading self-concept. *SAGE Open*, 13(3).
46. Xie, Q., & Yeung, S. S.-Y. (2022). Do vocabulary, syntactic awareness and reading comprehension in second language facilitate the development of each other in young children? *Learning and Instruction*, 82, 101682. <https://doi.org/10.1016/j.learninstruc.2022.101682>
47. Yawiloeng, R. (2022). Using instructional scaffolding and multimodal texts to enhance reading comprehension: Perceptions and attitudes of EFL students. *SSRN Electronic Journal*, 18(2), 877-894. <https://doi.org/10.2139/ssrn.4122231>