

# Chapter 4

## Acquisition of Writing by Reading and Its Impact on Cognition



J. Mary Jennifer and R. Joseph Ponniah

**Abstract** Reading is an effective tool that contributes to the development of language with a strong impact on writing skills such as content, vocabulary, spelling, syntax and mechanics. The study investigated the effects of reading on adult ESL rural students of an arts and science college in India. The data were collected using pre- and post-test and also based on a questionnaire. The results reported statistically significant improvement in writing performance as well as improvement of language aspects. Further, the present study assessed the relationship between reading self-efficacy beliefs and writing performance. Overall results showed that reading self-efficacy beliefs had a positive influence on writing performance. In addition, long-term reading exposure makes the composing process easier and minimizes writing apprehensions and block. The profound implication of this study is that reading has a positive impact on the development of certain cognitive capabilities.

**Keywords** Cognition · Reading motivation · Reading–writing relationship  
Self-efficacy · Writing apprehensions

Research on reading postulates that reading is an essential factor in the promotion of compositional skills through its positive effect on writing abilities (Carson, 1993; Ferris & Hedgecock, 2005; Krashen, 1984, 2004; Lee & Hsu, 2009; Smith, 2004). Reading expands knowledge of content, spelling, vocabulary, syntax and grammar. The extended knowledge in all dimensions scaffolds the writing process as there is reciprocal facilitation of reading and writing (Tierney & Shanahan, 1991). Evidence from research also suggests that both reading and writing rely on common cognitive resources (Carretti, Re, & Arfé, 2013), procedural knowledge (Prat-Sala & Redford, 2010) and affective schemata (Shell, Murphy, & Bruning, 1989). The cognitive resources of reading and writing require similar thought processes in meaning

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construction (Pearson, 1985; Spivey, 1990; Stotsky, 1983), which include activation of prior knowledge and accessing the appropriate information from memory and linguistic structures. Procedural knowledge such as planning, aligning and drafting enables readers and writers to set goals and purposes, and to develop a narrative thread in order to infer and convey ideas by involving cognition. Similarly, affective schemata comprise the affective variables such as attitude and motivation, which have a significant impact on reading and writing abilities as both competencies involve self-regulated behaviour.

The cognitive system has to be strengthened to attain conceptual and linguistic knowledge through continual exposure to reading. Evidence suggests that the cognitive benefits of reading such as pattern recognition, attention and text comprehension support writing by deepening the thinking process. Studies have also suggested that reading facilitates the composing process, and writing improves reading skills, and there is an undeniable connection between reading and writing (Willingham, 2017) as cognitive sub-processes are mutually facilitative (Grabe & Kaplan, 1996; Stotsky, 1982; Tierney & Shanahan, 1991; Zamel, 1992). In fact, studies conducted to improve writing by reading have proved that writing on what one has read enhances the comprehension of text through various processes including connecting relevant ideas, analysing and reviewing which have an indirect influence on reading skills. It is found that writing practices increase knowledge of spelling, phonology and syntax (Graham & Hebert, 2011; Tierney & Shanahan, 1991; Weiser & Mathes, 2011). Classroom studies on extensive reading have also demonstrated statistically significant improvement in writing skills (Elley, 1991; Elley & Mangubhai, 1983; Hafiz & Tudor, 1990; Lai, 1993; Lee & Hsu, 2009; Mason & Krashen, 1997; Mermelstein, 2015; Tsang, 1996; Tudor & Hafiz, 1989). The study conducted by Lee and Hsu (2009) reported remarkable gains in all key areas required for writing such as content, vocabulary, organization, language use, spelling/mechanics and fluency. Hafiz and Tudor (1989, 1990) and Tsang (1996) found significant improvement in the syntax and semantics of their participants' written language. Hafiz and Tudor (1989, 1990) and Lai (1993) confirmed that vocabulary and fluency are developed in writing. Hafiz and Tudor (1990) observed a variety of diction in their participants' writing after extensive reading sessions.

Learners who received longer exposure to reading had greater gains in overall writing scores (Lee & Hsu, 2009). In particular, readers who started to read in their early stages develop reading comprehension skills, verbal ability, and reading fluency in their later years (Cunningham and Stanovich, 1997). These skills had a significant impact on their writing and as a result, their syntactic structures were better formed than those of the infrequent readers (Stotsky, 1983). Further, reading in volumes had a positive influence on writing scores (Al-Rajhi, 2004; Constantino, 1995; Hafiz & Tudor, 1990; Janopoulos, 1986; Kaplan & Palhinda, 1981; Polak & Krashen, 1988; Salyer, 1987; Tudor & Hafiz, 1989). Kirin (2010) found that abundant reading was one of the determinants improving the writing ability of lower-level EFL learners. However, some researchers report that reading will benefit readers only in the long run (Lee & Hsu, 2009; Mermelstein, 2015). In line with this view, short-term studies on reading with limited reading materials benefit

only some of the writing aspects and have also found that participants' writing scores in some of the key areas are not statistically significant (Hafiz & Tudor, 1990; Tsang, 1996).

Longer reading exposure not only results in the acquisition of writing competence but also positively affects cognitive capabilities. Reading contributes to the composing proficiency by shaping the readers' cognition. In addition, studies have found an overall positive correlation between cognition and composing skills (Parodi, 2007; Shanahan, 1984; Shanahan & Lomax, 1986; Stotsky, 1983). Deciphering meaning from the composed idea helps readers to subconsciously absorb the nuances of writing style coupled with domain knowledge (Lee & Hsu, 2009). Tsang (1996) has also argued that reading in large amounts provided readers with an "appropriate model of the target language at an appropriate level..., improved general knowledge and thus helped develop content in writing...[and] exposed students to appropriate models of construction, agreement, tense, number, and word order/function" (p. 228). Moreover, as writing is a cognitive-linguistic activity (Deane et al., 2008), the learner must be cognitively competent to develop the compositional skill. Accessing more reading materials enables the learner to be efficient in cognitive competence and also to be aware of multiple functions of written language as reading provides a functional model for writing (Brooke, 1988; Eckhoff, 1983). Reading not only serves as a model but also encompasses various levels of cognitive processes (Kendeou & Trevors, 2012; van den Broek & Espin, 2012; van den Broek, Rapp, & Kendeou, 2005), such as decoding (Perfetti, 1985), retention of vocabulary knowledge (Nagy, Herman, & Anderson, 1985) and reading frequency (Fuchs, Fuchs, Hosp, & Jenkins, 2001) which are considered to be lower-level cognitive processes that help readers translate the written code into meaningful language structures (Kendeou, van den Broek, Helder, & Karlsson, 2014). The higher-level cognitive processes entail three functions: inference making, executive function and comprehension monitoring. Inference making activates prior knowledge to connect different parts of the text (van den Broek, 1997); executive function helps a reader to organize and reflect on the whole concept with the help of schemata (Cain, Oakhill, & Bryant, 2004; Kendeou et al., 2014; Sesma, Mahone, Levine, Eason, & Cutting, 2009); and the comprehension-monitoring function helps identify redundant, non-important information and organize the supporting details into a holistic network, eventually constructing the core idea of the text (Marzec-Stawiarska, 2016; Oakhill, Hartt, & Samols, 2005). Similarly, cognition in writing involves generating and organizing relevant ideas using linguistic knowledge with appropriate grammar and punctuation in a tone appropriate to convey those ideas to the audience. Thus, both reading and writing involve cognitive functions such as intelligence, attention, perception, memory, comparing and contrasting, differentiating, categorizing, analysing, synthesizing, and creativity (Stone, Silliman, Ehren, & Apel, 2004). In this way, reading develops cognitive efficiency and cognitive capabilities, eventually leading to the growth of proficient writing skills.

Despite plausible evidence supporting the claim that readers acquire writing skills by activating cognitive abilities, it is difficult to motivate non-readers to create

an interest in reading. It is because they either have difficulty in comprehending a text or negative attitudes towards reading. Text comprehension requires a reader to be lexically aware and familiar with the prior knowledge during the reading process. Indeed, comprehension is predicted by cognitive flexibility which requires longer duration of reading (Cole, Duncan, & Blaye 2014). Lack of long-term and repeated reading experiences delay automaticity in word recognition and text integration (Cunningham & Stanovich, 1997). Inflexible cognitive support results in negative reading experiences which may build up unfavourable attitudes towards reading and in turn lead to less involvement in reading-related activities, whereas possession of rich background knowledge and linguistic skills facilitates avid readers to read proficiently and frequently as they enjoy reading. As a result, avid readers become richer and poor readers become poorer and this phenomenon is called Matthew effect (Cunningham & Stanovich, 1998). In fact, readers of lower ability tend to view reading as “schoolwork” (Bondy, 1990) that requires disciplined effort and hard work and which in fact is “a serious, difficult process” (Elley, 1992, p. 77). Students of higher reading ability, on the other hand, take a meaning-centred approach (Devine, 1984). For them reading is a “pleasant, imaginative activity” (Elley, 1992, p. 77). Further, the cognitive flexibility of higher-ability readers motivates subsequent pleasure reading experiences which help them to develop favourable reading attitudes. Further, involving students in shared reading induces an interest that leads to the growth of receptive and expressive language (Wesseling, Christmann, & Lachmann, 2017). Accordingly, Ro and Chen (2014) found that students possessing positive reading attitudes had higher frequencies in reading. Grabe (1991) claims “Longer concentrated periods of silent reading build vocabulary and structural awareness, develop automaticity, enhance background knowledge, improve comprehension skills, and promote confidence and motivation” (p. 396).

Cognitive ability is influenced by linguistic proficiency, critical thinking and inferencing skills but non-cognitive elements such as affective variables play an essential role in processing cognition (Kahneman, Slovic, & Tversky, 1982). Positive emotional classroom climate is crucial in developing positive reading and writing behaviour (Hidi & Boscolo, 2006). Yamashita (2015) pointed out that “greater affective involvement stimulates cognitive processes such as focused attention and facilitates comprehension” (p. 172) as the affective variables have a mediating effect on cognition. For instance, unpleasant emotions such as anxiety and shame may not directly affect cognitive capacity but those negative emotions indirectly distort the brain functioning by interrupting the recall from memory while inferencing or comprehending a text (Bryan, Burstein & Ergul, 2004; Grills-Taquechel, Fletcher, Vaughn & Stuebing, 2012; Tobias, 1979). In the same way, while composing, negative emotion cripples the thought process and causes aversion towards writing (Brand & Powell, 1986). Learners with lower self-esteem and self-efficacy beliefs develop negative schema which leads to unsuccessful reading experiences. On the other hand, learners with higher self-esteem are intrinsically motivated as they experience positive emotions such as joy and excitement which influence them to sustain positive reading behaviour. In other words, intrinsic motivation is positively

correlated to reading for enjoyment and reading in volumes (Becker, McElvany, & Kortenbruck, 2010; Lau, 2009). Formation of positive reading behaviour in the early stages builds self-concept as readers and, in turn, this self-concept significantly predicts subsequent reading performance and attainment (Chapman, Tunmer, & Prochnow, 2000). Likewise, writers with positive self-esteem are enriched through increased reading and writing achievements (Shell, Colvin, & Bruning, 1995). Prat-Sala and Redford (2010) examined the relationship between variables such as self-efficacy in reading, self-efficacy in writing and writing performance of first- and second-year undergraduates. The results reported that self-efficacy beliefs in reading and writing were found to be correlated with writing performance for both groups, which implies that self-concept beliefs in reading and writing support writing performance. In line with this view, Kush, Marley, and Brookhart (2005) posit that reading attitudes impact the generative process of writing and it has been confirmed that positive attitudes towards reading influence writing (Carson, Carrell, Silberstein, Kroll, & Kuehn, 1990).

Positive reading behaviour is an outcome of positive reading experiences that result from reading engagement and reading attainment. Reading engagement can also be associated with reading for pleasure or reading for enjoyment (Cremin, Mottram, Powell, Collins, & Safford, 2014). Engagement in reading results in successful meaning construction and total involvement in reading activity provides satisfaction for readers. This occurs only when the text is well within the linguistic competence of the reader along with pleasurable content, because linguistically challenging texts require cognitive effort which slows down the reading process and extinguishes pleasure in reading, negatively affecting motivation (Stoller, 2015). When reading experience is successful, the act of reading itself motivates a reader to continue reading. The pleasure element in reading along with successful reading experience facilitates more reading and motivates intrinsically. Intrinsically motivated readers are often engaged in reading behaviourally, emotionally and cognitively (Fredricks, Blumenfeld, & Paris, 2004). The involvement and attention in reading contribute to the amount of voluntary reading which in turn leads to better comprehension. When reading becomes pleasurable, the learners are familiar with the content which relieves stress in the writing situation and this leads to pleasurable writing as well (Clark, 2013; Park & Ro, 2015).

Reading motivation is indispensable to conditioning the reading process. Lack of motivation can mitigate reading to a great extent even when the texts are comprehensible and interesting. Reading motivation can be defined as “the enduring readiness of a person to initiate reading activities” (Schaffner, Philipp, & Schiefele, 2014). It also represents the internal engagement one has to persist with the reading activity. Reading motivation is associated with the amount of time that readers engage in reading (Becker et al., 2010; Schaffner, Schiefele, & Ulferts, 2013; Schaffner et al., 2014). Such readers are intrinsically motivated and they read broadly, choosing challenging texts with persistence. Indeed, intrinsic reading motivation was found to be a positive predictor of reading amount and reading comprehension while extrinsic motivation was a non-significant or negative predictor of reading achievement (Andreassen & Braten, 2010; Guthrie, Wigfield,

Metsala, & Cox, 1999; Park, 2011; Schiefele, Schaffener, Moller, & Wigfield, 2012), because readers with intrinsic motivation are self-regulated and become engaged in reading while readers with extrinsic motivation perform reading for rewards and recognition. Park (2011) found that extrinsic motivation is detrimental when the students are less intrinsically motivated which is also consistent with the finding of Lin, McKeachie, and Kim (2003). However, moderate level of extrinsic motivation predicted higher reading performance with medium or high levels of intrinsic motivation (Park, 2011). Moreover, readers with higher levels of extrinsic motivation fail to persist in the activity further when the environment cannot provide favourable conditions.

## Participants

The participants in this study were eighteen female freshmen of an Arts and Science College aged 17–18. They had completed secondary education in rural schools where the medium of instruction was Tamil. They did not have any exposure to reading in English language apart from the textbooks prescribed for their English course. In order to score higher grades on tests, they memorized essays provided by the teachers before appearing for tests. Hence, their exposure to English language was limited and so was their language proficiency. These students had enrolled for a Bachelor of Arts degree in English Literature which demands a good deal of reading and only a few had the habit of reading.

## Aim of the Study

1. To prove that continual exposure to reading strengthens the composing process.
2. To identify the relationship between reading self-efficacy beliefs and writing performance.

## Procedure

A pre-test was administered prior to the reading programme in order to assess the language ability of the participants. The questions included:

1. Describe your hometown. (descriptive)
2. Narrate the following:
  - (a) What would you do if you have a million dollars?(or)

- (b) Write about a happy moment in your life. (narrative)
3. Today, there are more and more reality shows on television. Do these shows make good television? Why or why not? Explain your answers using specific reasons and examples. (argumentative)
  4. What is your all-time favourite movie and why?
  5. Write an essay persuading readers to watch this film. (persuasive)

During the treatment period, the participants read the provided materials for three hours per week and they continued to read for 45 days. The reading materials included informative passages and summaries of novels. The number of words in reading texts was about 800–900. In the beginning, the participants were less motivated as they found the reading materials uninteresting. In order to raise their level of motivation and interest, materials such as short stories, summaries of movies and recipes were introduced based on the suggestions given by the participants themselves. The given simplified reading materials provided comprehensible input and therefore, their reading experiences were pleasurable. When they could comprehend the text, it increased their level of interest and motivation which is proportionate to the level of comprehension.

In order to motivate students to share the reading material with peers, participants were allowed to discuss in groups once a week. During the discussion sessions, participants were encouraged to summarize the text they had read. At the end of each hour, the instructor checked whether the participants had completed their reading tasks. At times, the instructor facilitated free writing to reduce writing apprehensions.

The participants were asked to respond to a questionnaire which was structured in three parts: pleasure reading habits (e.g., time spent on pleasure reading, reading purposes); opinions about the reading programme (e.g., whether reading materials are comprehensible and pleasurable); reading continuity (e.g., how often they read, whether persisting reading activities after the reading programme); and reading self-efficacy beliefs (e.g., reading confidence and motivation). The questionnaire was based on a five-point Likert response scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicated better reading parameters. Participants who scored above the mean were categorized as frequent readers and others as infrequent readers. This categorization was further validated using their pre-test scores. Cronbach's alpha test was conducted to check internal consistency. The value of Cronbach's alpha, 0.87, indicates that the data is reliable and consistent.

## Results

Table 4.1 presents the mean scores for the participants on the pre- and the post-test. The results show that there is a statistically significant difference between pre-and post-test writing mean scores on all the sub-scales. According to Cohen (1988), an effect size of 0.2 indicates a small effect; 0.5, a medium effect; and 0.8,

**Table 4.1** Mean scores, pre- and the post-test

	Pre-test		Post-test		Mean difference	Effect size
	Mean	SD	Mean	SD		
Content	5.00	2.91	8.20	5.01	3.20	0.78
Vocabulary	1.18	0.53	2.31	1.47	1.12	1.01
Organization	1.13	0.64	1.76	0.98	0.63	0.76
Language use	1.30	0.69	2.30	1.54	1.00	0.83
Mechanics	1.16	0.60	1.35	0.44	0.19	0.36

**Table 4.2** Paired sample *t*-test results

Outcome	Pre-test		Post-test		<i>N</i>	95% CI for mean difference	<i>R</i>	<i>T</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>						
	9.99	5.00	19.92	9.49	18	-13.17, -6.69	0.76	-6.46	17	0.000

Note: *CI* confidence interval

**Table 4.3** Reading and writing scores, frequent and infrequent readers

<i>Frequent readers</i>					
	<i>N</i>	Minimum %	Maximum %	Mean	<i>SD</i>
Pre-test	11	20	50	12.89	4.00
Post-test	11	35	85	25.72	6.34
Reading score	11	74.28	97	60.64	5.60
<i>Infrequent readers</i>					
Pre-test	7	7.5	20	5.43	2.11
Post-test	7	15	42.5	10.79	5.37
Reading score	7	35.7	71	35.71	9.69

a large effect. The results show almost a large effect size for all the parameters except mechanics. Especially, substantial effect is found for language use which reflects the improved writing after experiencing more reading.

Table 4.2 shows the outcome of paired sample *t*-test. The results indicate that there is a statistically significant difference between the pre-test and the post-test scores.

Table 4.3 illustrates the reading and writing scores of frequent and infrequent readers. The mean scores imply that students who read frequently perform better in writing and also confirm that infrequent reading results in lower writing scores.

Table 4.4 presents the Pearson correlation between reading self-efficacy beliefs and writing performance of frequent and infrequent readers. The results reveal that



**Table 4.4** Pearson correlation of reading self-efficacy beliefs and writing performance

			WP
		Pearson correlation	0.835**
FR	RS	Sig. (2-tailed)	0.001
		<i>N</i>	11
		Pearson correlation	0.373
IFR	RS	Sig. (2-tailed)	0.410
		<i>N</i>	7

\*\*Correlation is significant at the 0.01 level (2-tailed) for frequent readers

*FR* frequent readers; *IFR* infrequent readers; *RS* reading self-efficacy; *WP* writing performance

reading self-efficacy beliefs of frequent readers are significantly correlated with writing performance ( $r = 0.835$ ,  $n = 11$ ,  $p < 0.001$ ). There is no stronger relationship between self-efficacy beliefs and writing performance of infrequent readers ( $r = 0.373$ ,  $n = 7$ ,  $p = 0.410$ ).

## Discussion

The results confirm that the writing score of frequent readers is proportionate to the reading score. The correlational analyses of the questionnaire indicated that positive experiences in reading for a longer period not only contribute to acquiring the language properties, but also to the development of self-concepts in reading and writing performances. This finding is consistent with Pajares and Johnson (1994), Shell et al. (1989), and Prat-Sala and Redford (2010). The wide background knowledge, cognitive activation and reading enjoyment determine the high frequencies in reading. Moreover, results from the questionnaire infer that there is a positive correlation between reading continuity and pleasure that the readers derive from the act of reading. Thus, the frequency increases when the reading experience turns out to be rewarding and it decreases when reading experience is not pleasurable.

The results confirm that the improvement in writing skills is in correlation with the amount of reading of comprehensible texts. This is the reason why the participants who experienced more comprehensible input (frequent readers) performed better than the participants (infrequent readers) whose reading does not fall within their linguistic competence. Frequent readers had greater gains as the reading experience was more pleasurable and enjoyable for them. In the early stages of the reading programme, infrequent readers experienced difficulty in decoding meaning from the text. Further, the reading experience was not rewarding and compelling for infrequent readers because of the delay in automaticity and word recognition

(Cunningham & Stanovich, 2001). However, their language acquisition was proportionate to the comprehensible input they received.

The study corroborates that reading results in the acquisition of skills required for writing, confirming that writing ability is the result of the increased amount of reading that provides understandable content. Moreover, this kind of reading lowers writing apprehensions and motivates readers to do free writing (Lee, 2005). In fact, writing is a composing process that requires synthesis and the development of ideas using current knowledge. The participants were able to write better on the post-test, indicating that reading enabled them to generate new ideas which could be the contribution of activated cognition. In particular, students who had better comprehension produced quality written constructs. This indicated that their thinking skills had also improved. More precisely, reading contributes to the development of the complex skills required for writing with a strong impact on comprehension, and there are enormous implications that it affects cognitive capabilities as well.

The analysis of pre- and post-test test scores confirmed that readers performed better on all the sub-scales which include content, organization, vocabulary, language use and mechanics; they also showed improvement in comprehension, cognition, writing style and fluency. Reading provides compelling input in an anxiety-free environment that makes language acquisition easier and enjoyable. This indeed is consistent with comprehension hypothesis and affective filter hypothesis (Krashen, 2003) which state that language acquisition will be high only when the reading materials are comprehensible and pleasurable. The participants enjoyed reading, as the materials assigned for reading were interesting, and therefore they immersed themselves in the content. Furthermore, the participants expressed that reading short stories is more enjoyable than the informative texts provided because the theme is interesting and the language is within their comfort zone, and this motivated them to engage with meaning which, in fact, had a positive effect on thinking.

The pre-test answers indicate that the participants experienced writing apprehensions and therefore could not write the required content with precision. Moreover, the erroneous assumption that they should focus on form to improve writing inhibited them from writing the appropriate content (Lee, 2005). A question on the pre-test asked the participants to write about their home town. Instead of writing about their home town, many wrote about their family and neighbours (see Sample 1), confirming that they experienced writer's block presenting their intended meaning.

Sample 1: *"I love my family and my parents and I love my younger sister, neighbours. My house is very beautiful, my father native place."* (Pre-test write-up)

The above example confirmed that the subject failed to convey the intended meaning; what she wrote was not relevant to the context. But the same subject was able to describe the village on the post-test (Sample 2).

Sample 2: *“My village has five beautiful ponds. And it is surrounded by mountains and gardens and it is shadowed with coconut trees. Also, it is called as lemon-city. Agriculture is the occupation. And it is a cool place.”* (Post-test write-up)

This indicates reading helps students to organize and present their intended meaning clearly and precisely supported by cognitive abilities. The post-test answers confirmed that the students were able to write their ideas appropriately as they gained exposure to reading. Most of the students wrote about the special features of their hometown which include landscapes, climate, famous temples, shops etc. on the post-test. This confirms that reading bridges the gap between the intended and the conveyed meaning and helps to come up with appropriate content. This is consistent with the study that reading in volumes is the determinant of reading comprehension, language acquisition and improved cognitive flexibility (Cunningham & Stanovich, 2003).

Reading showed a strong impact on the growth of vocabulary knowledge and this is consistent with studies on incidental acquisition (Pigada & Schmitt, 2006; Ponniah, 2011) of vocabulary showing that readers acquire meaning of words incidentally and use the acquired words when writing. Furthermore, exposure to words in contexts will result in better use of vocabulary as well as increased knowledge of lexis and syntax, indicating that they have acquired grammar of the words in addition to meaning (Ponniah, 2011). This kind of vocabulary knowledge is more powerful than intentional learning (Lee & Hsu, 2009) because it is more difficult to use the consciously learned words in sentences. Further, the students developed a good deal of semantic knowledge in comparison with all other linguistic measures. The students acquired verbal awareness not only by reading but also through discussions. They also attempted to incorporate the words elicited through such discussions while composing. This is consistent with the view that shared reading promotes receptive and expressive vocabulary (Wesseling et al., 2017; Sénéchal & LeFevre, 2002, 2014). The following samples are from pre- and post-tests. Subject 1, Pre-test: *My father arranged a birthday cake for me. First time I cut the cake. I am very surprise.*

Post-test: *The day before my birthday, my roommates arranged a cake for me. I was very surprised.*

Subject 2, Pre-test: *It has lots of twists and turns.*

Post-test: *There are many twists and turns in this movie which makes us really spell-bound.*

Subject 3, Pre-test: *Behind my house there was a river. The river was look like black and the water is very impured.*

Post-test: *There is a river behind my house. The river was very dirty.*

Additionally, these shared reading experiences provided opportunities to verbalize thoughts in a stress-free situation, enabling the participants to acquire vocabulary incidentally, and motivated the participants to read more because sharing itself gives pleasure and this makes the learning environment pleasurable. In fact, it helped participants to choose the books that interest them, and sharing

makes reading easier and comprehensible as they get information from peers about the book before they read. The social interactions also contribute to the increased level of reading motivation and confidence.

This study also confirms that reading improves comprehension abilities, which facilitates language acquisition, affecting both writing and cognition of readers. It is also proved that reading and writing are interconnected activities and cognition is the base which stimulates the process of comprehension and composing. Through reading, cognition is enhanced and in effect thinking is shaped, eventually fostering a significant improvement on the skills required for writing. Nevertheless, motivational aspects have to be considered to raise the level of self-efficacy beliefs with the assistance of positive reading and writing experiences. The developmental self-efficacy beliefs assist students to set goals and to persevere with their goals and aspirations. Research also reports that students who have high self-efficacy are less anxious and highly comfortable in performing the tasks. Therefore, raising self-efficacy modulates self-regulated behaviour, in addition to increased enjoyment of reading and writing.

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