The Effects of Extensive Reading on the Reading Fluency and Reading Comprehension of Primary Grade Students in a Bhutanese ESL Context

Kinley Pem and Pornpimol Sukavatee*
Abstract

A few extensive reading (ER) studies have been carried out with children in second- or foreign-language contexts. This study adds to the studies in this field, of the impacts of ER on young learners by investigating the effects of extensive reading over a twelve-week ER instruction on the reading fluency and reading comprehension of Bhutanese primary grade students. A quasi-experimental mixed method design was employed with one group of fourth grade primary students (n=16). The participants received 50 minutes of extensive reading instruction twice a week. A Wilcoxon signed-rank test revealed significant differences between the pre- and post-tests, indicating a drastic improvement in reading fluency and reading comprehension after the ER instruction. Similarly, qualitative analysis of the second- and eleventh-week’s reading logs showed improved reading fluency, with the highest reading speed score, compared to the second week. Likewise, participant’s reading comprehension responses were comparatively more improved in the eleventh week. These findings suggest that extensive reading instruction be implemented in Bhutanese second-language learning classrooms to promote reading fluency and reading comprehension, and hint at the possibility that extensive reading may contribute to academic achievement in other English-related content subjects.

Keywords: extensive reading, reading comprehension, reading fluency

Introduction

Though modern education in Bhutan started officially as early as 1914, it was really only able to start in earnest around the 1960s, due to the mountainous terrain of the Himalayan region, with scattered settlements separated by rapids (Denman & Namgyel, 2008). Now that modern education is accessible to almost all citizens, the provision of a quality education is a growing demand, and a pressing issue for every relevant stakeholder, educational institution, and parents. The Ministry of Education (2014) has warned that the foremost challenge confronted by the education sector is to raise the number of students to achieve the expected benchmarks specified for each level of the Bhutanese national curriculum. Moreover, the lack of a reading culture in Bhutan is still a significant concern. As Wangmo (2002) claims, Bhutanese society is not a reading culture, but a verbal culture, where listening and chitchat are the social propensities of the people. Due to poor reading habits, Bhutanese students are deficient in reading comprehension. As the Bhutanese national report from the OECD’s PISA-D results for developing countries shows, Bhutanese secondary students find it difficult to address questions needing comprehension and a
general understanding of content (Bhutan Council for School Examinations and Assessment, 2019). Hence, improving reading comprehension has become a dire need for Bhutanese children, so as to ameliorate their academic performance generally.

**Reading Comprehension and Reading Fluency**

Reading comprehension is the main focus of this study, which assesses both the literal and the inferential understandings of the text. Literal comprehension is the fundamental mode of understanding in reading, involving concrete details and facts that are specifically mentioned (but not merely referred to or implied) in the text (Jude & Ajayi, 2012). In this study, literal comprehension corresponded to Levels 1 and 2 of Marion Blank’s four levels of abstraction, as provided by Westby (2017) where the reader uses ‘matching perception’ to label, locate, notice, and count objects, or ‘selective analysis of perception’ to describe characteristics, scenes, or work with complete sentences, respectively. On the other hand, inferential comprehension is a knowledge-driven processes, such as synthesizing, summarizing, generalizing, and inferring, where readers go beyond the literal sense of the text to grasp what the text means and what it is about (Alptekin, 2006). In this study, inferential comprehension corresponded to Blank’s Levels 3 and 4, where readers employ ‘reordering perception’ to recall, draw inferences, judge, and evaluate, or ‘reasoning about perception’ to explain, predict, or provide information beyond the text, respectively (Westby, 2017).

However, poor reading comprehension may also be attributed to the absence of reading fluency, because Álvarez-Cañizo et al. (2015) have clearly explained that poor reading comprehension is due to the issues confronted in reading fluently. Reading fluency, however, refers to the number of correct words read per minute, and this study employs the concept specified by (Rasinski et al., 2005) as “reading rate of students”.

**Extensive Reading**

Extensive reading has become very popular, and has spread to second language learning classrooms everywhere, due to the shortcomings of the conventional way of teaching reading, which is known as intensive reading (Arai, 2019). Extensive reading is simply for the joy of reading, while intensive reading is for understanding strict meaning, linguistic constructions, and explanatory connections within the content (Brown & Lee, 2015).
Extensive reading requires reading a vast variety of basic and enjoyable text materials that focus only on the context and a general interpretation of the text (Birketveit et al., 2018; Bamford & Day, 2004; Suk, 2017). However, Bamford and Day (2004) provide ten extensive reading (ER) characteristics that are commonly acknowledged in the field of ER. They describe resources for ER reading that are uncomplicated, and a lot of varied reading material on a wide range of topics is available. Readers select what they like to read, and learners read to the full degree possible. In an ER class, the reading is joyful, to gain information and overall understanding, not to memorize facts or information. Reading is the incentive itself. The learners usually read faster, and the reading is quiet and personalized. The class is not teacher-centric; instead, the teacher orients and provides guidance. The teacher is, in fact, a model reader (Day, 2018). Several recent second language ER researchers (Aka, 2019; Chang & Renandya, 2017; McLean & Rouault, 2017; Mermelstein, 2015; Mikami, 2020; Nakanishi, 2015; Suk, 2017) have found a massive advantage with extensive reading in the overall progress of language proficiencies, with reference to reading comprehension, grammar, reading speed, vocabulary, writing, speaking, listening, and reading motivation. Fundamentally, extensive reading enhances students’ positive attitude and intensifies motivation to read (Day, 2018).

Despite ER's tremendous benefits in most second language learning classrooms around the world, most ER studies have been carried out in the higher levels of education (secondary, middle, high school, colleges, and universities). A very limited number of extensive reading studies have been conducted in the primary level in the field of second language learning. A meta-analysis by Jeon and Day (2016) stated that there have been only six examples of extensive reading studies for the primary level completed so far. And another meta-analysis by Nakanishi (2015) found zero extensive reading studies with children (elementary or below). Interestingly, not a single ER study has ever been done in Bhutan so far, neither in the higher levels of education nor in the secondary or elementary grades or below. Thus, many recent ER researchers (e.g. Ng et al., 2019; Jeon & Day, 2016; Nakanishi, 2015) propose carrying out ER studies with students in elementary classes particularly. Therefore, this study investigates the effects of extensive reading on the reading fluency and reading comprehension of fourth-grade Bhutanese ESL students in one of the rural schools in Bhutan. So, the study intends to address the following research questions:
1. To what extent does extensive reading improve Bhutanese Primary grade students’ reading fluency?

2. To what extent does extensive reading improve Bhutanese Primary grade students’ reading comprehension?

Methodology

Participants

The study employed a mixed-method research design to investigate the effects of an extensive reading on reading fluency and reading comprehension of primary grade students in a Bhutanese ESL context. The study was conducted with sixteen fourth-grade elementary students in one of the rural schools in Bhutan for twelve weeks from March to May 2021.

Extensive Reading Instruction

The ER instruction lasted for twelve weeks, with two periods of 50 minutes in a week. The focus of the ER instruction was to develop students’ reading comprehension and reading fluency. During the earlier weeks of the instruction, the students were introduced to extensive reading and oriented to ER. The following weeks focused on sustained silent reading, with motivating ER activities, adapted from (Bamford & Day, 2004). The ER activities primarily introduced extensive reading, and familiarized the students with ways to select appropriate text materials for themselves. The activities motivated and inspired them to read more and faster with delight. However, sustained silent reading (SSR) comprised most of the ER class. The teacher monitored, assisted, and read as a role model. The participants read books of their interest and choice. Students used five-finger rule to choose easy books. The five-finger rule is a method that a reader uses to assess the text complexity using five fingers. The readers can raise a finger for each difficult word they come across in the book (Padak & Rasinski, 2007). According to the authors, if two to three fingers are raised, the book is acceptable; if three to four fingers are lifted, the book is too tough, and the book must be abandoned. The students read as much as possible, for fun, without any grades. The teacher was just a guide and a model reader. Finally, the students filled out their reading logs after completing a book. The reading logs required the students to record pieces of information, such as the title of the book, the date, their reading speed (i.e., number of words read per minute), and five incomplete sentences that drew on both the
literal and inferential comprehension of the text. The participants were informed weekly about their progress on their reading speed and reading log responses, because (Nation & Waring, 2019, as cited in Milliner, 2021) insist that it is imperative to provide ways for the students to see their own visible progress, in order to tap into their motivation to read extensively.

**Reading Materials**

A variety of easy and enjoyable text materials were used. The Input Hypothesis by Krashen (2003) supports the idea that, when we understand texts, that is, when we comprehend what we hear and what we learn — as we get comprehensible input — we obtain language and achieve better literacy. Hence, the materials were age-appropriate, pleasurable, graded readers that suited the various levels of the students’ linguistic competence. Authentic materials by native speakers were also used; however, the grade level was made appropriate. For instance, grade III books of native speakers were used for grade IV students, and so forth. The books were categorized into levels represented by different colors on the spine (Level 1 (easiest) till Level V (hardest). For instance, Level 1 books were taped yellow; level 2 books blue, and so on. The levels were classified as per the extensive reading foundation grading scale. The grading scale is based on headword count, which ranges from Alphabet (50 words) to Near Native (18,000 words), and is split into five levels with three finer sublevels (Extensive Reading Foundation, 2011). The level 1 books approximately had (1-50 headwords) with lots of pictures, that fell under Beginner, Alphabet level of the grading scale.

**Instruments**

The study utilized both qualitative and quantitative methods to collect data. This type of procedure enhances the validity of the data obtained, providing a detailed explanation, which is not possible from a single method (Sánchez-Hernández, 2018). The quantitative method included reading comprehension tests and fluency tests. The pre- and post-tests were parallel, and had three parts, viz. a long story, a short passage, and a short story. The reading passages were adapted. The tests consisted of twenty multiple-choice questions, with an equal number of literal and inferential items. The items were all close-ended questions, mainly multiple-choice questions. To further triangulate the data collected from the tests, additional data was gathered qualitatively from the reading logs.
To ensure the quality of the instruments, the test reliability (consistency), difficulty index (item difficulty), and discrimination index (difference between high and low scorers) were all measured after the pilot test and also three experts in the field validated all the instruments.

**Data Analysis**

The data gathered quantitatively from the pre- and post-tests were analyzed to investigate the effects of extensive reading on reading fluency and reading comprehension. The Wilcoxon signed-rank test was used to compare the scores of the pre- and post-tests. To further compensate for the findings from the tests, the reading log responses (number of literal and inferential responses) of the second week and eleventh week were compared. Similarly, the reading fluency records (number of words read per minute) were also compared.

**Results**

The quantitative and the qualitative results of this study will be presented in two parts. The first presents ER’s effects on fluency, while the latter describes ER’s effects on comprehension.

**Effects of Extensive Reading on Reading Fluency**

**Quantitative Results for Research Question 1**

<table>
<thead>
<tr>
<th>Table 1: Descriptive Statistics for Overall Reading Fluency (number of words read per minute) (WPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading Fluency (WPM)</strong></td>
</tr>
<tr>
<td>Pretest</td>
</tr>
<tr>
<td>Posttest</td>
</tr>
</tbody>
</table>

Table 1 indicates that post-test reading fluency scores increased significantly (words read in one minute) after the extensive reading instruction. The pre-test had a 31-point minimum and a 123-point maximum score. The post-test, meanwhile, had a minimum score of 123, and the highest score was 140. The mean score of the reading fluency post-test was considerably higher, at 91.87 ($SD=30.037$), compared to the pre-test score at 55 ($SD=24.489$). This indicates that the fourth-grade pupils’ reading fluency improved significantly after the extensive reading instruction.

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Similarly, Table 2 displays the statistical difference between the reading fluency pre-test and post-test scores of the Wilcoxon signed-ranks test. It reveals that all of the students (n=16) scored higher in the post-test compared to the pre-test. The pre-test and post-test scores are significantly different at .000 level (p < .05), with a large effect (r = −0.6). The alpha was set at 0.05. The exact probability, p = .000, is smaller than alpha, so the alternative hypothesis 1 (Ha) is accepted.

**Hypothesis 1**

(Ha): There is a statistically significant difference between the test scores of the pre-test and post-test for Reading Fluency.

**Qualitative Results for Research Question 1**

The students’ reading logs were collected in the 2<sup>nd</sup> and 11<sup>th</sup> weeks to gather data on reading fluency (i.e., number of words read per minute).
Table 3

Students Reading Fluency (number of words read per minute) (WPM)

<table>
<thead>
<tr>
<th>Week</th>
<th>Reading Fluency Record (number of words read per minute)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>50 38 44 54 83 59 29 95 44 60 15 144 100 86 46 95 1042</td>
<td></td>
</tr>
<tr>
<td>11th</td>
<td>126 100 69 62 83 174 112 120 63 115 69 160 130 189 120 238 1930</td>
<td></td>
</tr>
</tbody>
</table>

N=16

Table 3 displays the fluency records of the students (n=16) as recorded in their reading logs of the second and the eleventh weeks. After reading a book, the students recorded their reading speed (number of words read per minute). The record clearly shows markedly enhanced reading fluency (number of words read per minute) in the eleventh week, as over the second week.

Effects of Extensive Reading on Reading Comprehension

Quantitative Results for Research Question 2

Table 4

Descriptive Statistics of the Overall English Reading Comprehension Test Scores for All Students

<table>
<thead>
<tr>
<th>Reading Comprehension</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>16</td>
<td>8.94</td>
<td>4.123</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Post-test</td>
<td>16</td>
<td>11.69</td>
<td>3.911</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

Note. Total Score = 20

Table 4 shows that there were 16 students in total, with a total score of 20 points in the test. The pre-test had a minimum score of 2 and a maximum score of 15. Correspondingly, the post-test had a minimum score of 4 and a maximum score of 17. The mean score on the post-tests, 11.69 (SD =3.911), was higher than that of the pre-tests, 8.94. Thus, students’ reading comprehension increased after the ER implementation, as indicated by the improved post-test scores.
Table 5

Statistical Difference between the Reading Comprehension Pre-Test and Post-Test Scores of Students using Wilcoxon Signed-Ranks Test

<table>
<thead>
<tr>
<th>Reading Comprehension</th>
<th>N</th>
<th>M</th>
<th>Sum of Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>2(^a)</td>
<td>5.25</td>
<td>10.50</td>
</tr>
<tr>
<td>Pre-test</td>
<td>11(^b)</td>
<td>7.32</td>
<td>80.50</td>
</tr>
<tr>
<td>Ties</td>
<td>3(^c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Reading comprehension post-test < Reading comprehension pre-test
b. Reading comprehension post-test > Reading comprehension pre-test
c. Reading comprehension post-test = Reading comprehension pre-test

Table 5 (continued)

Test Statistics\(^a\)

<table>
<thead>
<tr>
<th>Reading Comprehension</th>
<th>Post-test - Pre-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z</td>
<td>-2.457(^b)</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.014</td>
</tr>
</tbody>
</table>

\(^a\) Wilcoxon Signed-Ranks Test
\(^b\) Based on negative ranks.

Similarly, the statistical difference in Table 5 demonstrates that 11 of the 16 students had a higher post-test score than pre-test. The effect size was calculated using the Wilcoxon Signed-Rank Test equation, \( r = Z/\sqrt{N} \) (Larson-Hall, 2015). A large effect size was found (\( r = -0.4 \)). The pre-test and post-test were significantly different at .01 level (\( p < .05 \)). The alpha was set at 0.05. The exact probability, \( p = .01 \), is smaller than alpha, so the alternative hypothesis 2 (Ha) is accepted.

Hypothesis 2

(Ha): There is a statistically significant difference between the test scores of the pre-test and post-test for Reading Comprehension.
Qualitative Results for Research Question 2

The second- and eleventh-weeks’ reading logs were coded. Level 1 and 2 entries were categorized as ‘literal’ responses, whereas Level 3 and 4 as ‘inferential’ responses, according to the levels of abstraction by (Zucker, Justice, Piasta, & Kaderavek, 2010).

Table 6

<table>
<thead>
<tr>
<th></th>
<th>Second Week</th>
<th>Eleventh Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Literal</td>
<td>Literal</td>
</tr>
<tr>
<td></td>
<td>Responses (SLR)</td>
<td>Responses (ELR)</td>
</tr>
<tr>
<td>n</td>
<td>Valid</td>
<td>Missing</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Sum</td>
<td>76</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>70</td>
</tr>
</tbody>
</table>

Note. N = Total number of reading logs

Table 6 illustrates the students’ reading comprehension progress, as the total of literal and inferential reading log responses in the eleventh week (ELR=78, EIR=70) is greater than the second week (SLR=76, SIR=31). Furthermore, inferential understanding of the text improved drastically in the eleventh week (EIR=70), compared to the second week (SIR=31). Hence, after receiving the ER instruction, the students’ reading comprehension improved, as testified by the increased results of both literal and inferential responses in the eleventh week.

Discussion

The study results show that the students achieved improvement in both reading fluency and reading comprehension after twelve weeks of extensive reading instruction. Reading fluency (the number of words reads per minute) increased significantly after extensive reading instruction, as evidenced by the higher mean score on the post-test and the statistically significant difference between the pre- and post-tests. In addition, the qualitative data analysis of the reading logs also revealed the students’ reading fluency improvement after receiving ER instruction. The results were consistent with the studies of (e.g. Huffman, 2014; Park, 2017; Suk, 2017). Likewise, the student’s reading comprehension
scores rose after the extensive reading instruction, as indicated by the increase in the mean score of post-tests, and a significant statistical difference between the pre- and post-tests. Furthermore, the qualitative analysis of the reading logs also revealed drastic enhancement of the responses in the 11th week, compared to those of the second week. The results were in accordance with (e.g. Al-Nafisah, 2015; Endris, 2018; Khansir & Bafandeh, 2014; Suk, 2017). The majority of prior ER research has focused on secondary and university students; however, the current study adds to that body of knowledge, the additional evidence that extensive reading can also assist fourth-grade (i.e., elementary) students in improving their reading fluency and reading comprehension.

The most important factors that helped the fourth-graders develop their reading fluency and reading comprehension were: Firstly, the provision of a wide range of graded and pleasurable reading materials, which gave students a choice of books to read extensively, both at school and at home, as well. Secondly, a very low-anxiety ER classroom environment let students 1) exchange books without fear, 2) stop reading a particular book if they don’t like it or couldn’t read it, 3) allowed them to take more than one book a week home, and 4) read pleasurabley without any anxiety about tests or grades. Thirdly, the ER teacher consistently and constantly encouraged the students to keep a record of their reading speed progress. This stimulated the students to choose easier books, using the five-finger rule. Mainly, readers read books that are simple and have few complex words. Further, the students rarely used dictionaries, to avoid disrupting the seamless flow of the reading. Finally, the ER teacher became a guide, model reader, and an avid reader, who continuously shared about the books read.

In conclusion, this study indicated that extensive reading instructions also have a beneficial impact on the development of language proficiencies (reading fluency and reading comprehension) of elementary grade students, and further suggesting extensive reading instruction be implemented in Bhutanese second-language learning classrooms.

**Recommendations for Future Research Studies**

1. A large-scale, or whole-school, extensive reading program would be more effective in demonstrating the benefits of extensive reading.
2. More ER studies in various Bhutanese educational levels are needed to explore the impacts of extensive reading.
Acknowledgments

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