The Impact of Using Digital Children's Literature Prathambooks.org on EFL College Students' Vocabularies at UNP

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Abstract

Digital children's literature website provides authentic and interesting reading media for EFL students. This research aims to investigate whether using digital children's literature *prathambooks.org* has a good impact on EFL college students' vocabularies. This study applied a quasi-experimental research design with a quantitative method. The sample was two classes consisting of 64 students in the English language education major who enrolled in Introduction to Literature subject for the 2022/2023 academic year. The data were gathered using pre-test and post-tests of EFL college students' vocabularies consisting of 150 vocabularies taken from 15 selected stories on *prathambooks.org.* A collection of 15 stories completed with vocabulary exercises and vocabulary lists was used as the reading daily treatment within 15 days. The finding of this research shows an improvement in students' familiarity with the vocabulary given. This research proves that employing digital children's literature as reading media has a positive impact on EFL college students' vocabularies.

INTRODUCTION

Vocabulary is the language component that every language learner must master at first to be a proficient user. A primary component of language proficiency is vocabulary since vocabulary is an essential component of how proficient learners talk, listen, read, and write (Richards & Renandya, 2002, p. 255). Without a broad vocabulary and techniques for increasing it, learners cannot maximize their potential and discourage taking the opportunities to learn a language and use language in

different contexts. According to McCarthy & O'Dell (1999, p. 2), vocabulary learning means learning the meaning of a word, the other words it usually goes with, and how it is pronounced. The foundations of vocabulary skills are a clear understanding of a language and the appropriate uses of the vocabulary in each circumstance. EFL learners can learn new English vocabulary through reading and listening to English. In this study, the researcher focused on improving vocabulary through reading activities because the relationship between reading and vocabulary in foreign language learning is known as a bidirectional relationship. It means that learners with high vocabulary mastery will be easier to read and will have big opportunities to learn new vocabulary from the reading activities (Clenton & Booth, 2021, p. 67).

In the language classroom, the lecturers must choose suitable reading material that makes students not feel anxious, stressed, or bored while reading the text. As reading is the input of language, the written materials should help students meet specific linguistics and content goals, can be used for teaching tasks and strategies, and can be integrated with other skills. Moreover, the text should be challenging for students to read, but the vocabulary and structure are not too difficult. One of the media to gain EFL learners' interest in reading English text as well as to improve their vocabulary is digital children's literature in the form of picture books. Children's books offer more advantages than most books can do at different times and for various reasons. For example, teachers might utilize children's literature as a tool to improve vocabulary, fluency, and comprehension while teaching reading procedures or skills, in addition to focusing on the cognitive components of reading (Barone, 2011, pp. 3–4). In the EFL classroom, children's books are authentic materials for learning literacy, learning vocabulary, and decreasing reading anxiety.

Moreover, Nurgiyantoro (2010, p. 158) states that as a reading medium, children's literature picture books can help learners naturally learn vocabulary as they focus on the stories and illustrations rather than learning a language. Furthermore, as we live in the digital age, literary learning has been developed using digital technology and all forms of digital-based learning. Chen et al., (2003, pp. 3–7) categorize digital children's literature websites as web-based story books that can be accessed from various websites, such as *prathambooks.org, Storynory.com, storybookscanada.ca,* and *Storyline Online.* Some researchers have investigated the impact of using children's literature short stories on anxiety in language learning and vocabulary, such as Marlina (2013), Abdul-ameer (2014), Nasria & Dakhalan (2022), Asnita & Marlina (2022), Haviza & Marlina (2022), and Ahwida & Marlina (2023). However, there are still limited studies on the use of digital children's literature, especially short stories in the form of picture books on EFL college students' vocabularies.

In addition, Hiebert & Kamil (2005, p. 46) with other scholars concur that most vocabulary growth happens accidentally through exposure to the language. Nation (2001, pp. 11–21) has divided vocabulary into four types: high-frequency words, academic words, technical words, and low-frequency words. In this study, the researcher used the four types of vocabulary proposed by (Nation, 2001) to analyze the types of vocabulary that appear in 15 selected picture books on the website *prathambooks.org*. The indicators were used to prepare the instrument for testing EFL college students' vocabulary. Moreover, the researcher also considered the word levels according to the Common European Framework of Reference for Language (CEFR).

The CEFR is a framework that describes language proficiency at several levels, from A1 (beginning) to C2 (proficient). The word level in CEFR emphasizes the learner's ability to acquire and expand their vocabulary knowledge in the target language. This involves learning new words, their meanings, and their usage within different contexts.

This study used the *"StoryWeaver"* submenu, a digital repository from *prathambooks.org,* to get free access to multilingual children's literature in the form of picture books. Pratham Books is a non-profit publisher based in India which has been creating engaging storybooks in a variety of languages since 2004. This publisher has collaborated with many book publishers around the world, and one of them is Indonesian publisher *"Badan Pengembangan dan Pembinaan Bahasa".* There are more than 20k stories are available for free. The users can filter the stories by languages, level, categories, publishers, and type. This submenu offers many attractive features, such as read, translate, create, resources, discover, read-along, and reading program. The following story themes can be used as reading material for EFL learners, namely, adventure & mystery, bilingual, funny, family & friends, life skills, place and culture, poems, school stories, science & nature, and series (StoryWeaver: Prathambooks, 2023). However, the researcher collected 15 stories from Level 4 as the reading daily treatment to expose the EFL college students to authentic reading sources.

METHOD

A quasi-experimental research design with a quantitative approach was employed in this research. Isnawan (2020, pp. 7–8) states that a quasi-experimental design is required whenever a researcher wishes to implement a model, approach, strategy, or method in teaching and learning to develop students' competency. The researcher applied the pre-test and post-test with a non-equivalent control-group design. The second-semester students majoring in English Education who have taken Introduction to Literature subject consisting of 184 students at the UNP's English Department during the 2022/2023 academic year was the population of this study. The K6 and K7 classes made up the sample after it was selected using cluster random sampling. These classes were divided into two groups at random: a control class and an experimental class. K6 was thus assigned as the control group and K7 as the experimental group. The treatment was given to the experimental group whereas it was not given to the control group. Both classes received a pre-test, and then a post-test was administered after the experimental group finished the treatment (Isnawan, 2020, pp. 11–12).

The researcher measured the students' initial vocabulary level using a pre-test consisting of 150 vocabularies chosen from 15 stories on digital children's literature *prathambooks.org* to measure students' initial level of vocabulary. Then, the initial vocabulary test was distributed using Google Forms. After gathering the data, the researcher used SPSS Version 25's descriptive statistics and paired sample t-test to examine the research's hypothesis. There were two hypotheses in this research. The Null Hypothesis was the use of digital children's literature on *prathambooks.org* did not have a better effect on vocabularies of EFL college students at the UNP's English Department. Then, the Alternative Hypothesis was the use of digital children's literature on *prathambooks.org* had a better effect on vocabularies of EFL college

students at the UNP's English Department. Here are the indicators of vocabulary in the pre-test and post-test.

Table 1. The Indicator of EFL College Students' Vocabulary Test

	Types of Vocabulary	Number of Vocabulary in the Pre-Test and Post-Test	Pratham Books Story Level 4
Based on Nation (2001)			
1	High-Frequency Words (75)	1,2,3,4,6,7,10,11,12,13,14,15,16,17,18,19, 21,22,24,26,27,29,33,40,41,42,43,45,46,47,48,49,51,52,53,56,57,58,59,61,62,64,65,66,67,68,69,73,74,76,77,79,80,81,84,85,89,92,93,95,100,101,102,113,116,122,124,126,130,134,135,138,141,143,144	1,2,3,4,5,6,7,8,9, 10,11,12,13,14,15
2	Academic Words (7)	9,37,54,70,131,140,142	1,4,7,14,15
3	Technical Words (4)	28,63,103,136,	3,7,11,14
4	Low-Frequency Words (64)	5,8,20,23,25,30,31,32,34,35,36,38,39,44,50,55,60,71,72,75,78,82,83,86,87,88,90,91,94,96,97,98,99,104,105,106,107,108,109,110,111,112,114,115,117,118,119,120,121,123,125,127,128,129,132,133,137,139,145,146,147,148,149,150	1,2,3,4,5,6,8,9,10,11,12,13,14,15
Word Level (CEFR)			
1	A1 (0)	-	-
2	A2 (6)	30, 93,94,97,128,135	10,13,14
3	B1 (21)	4,5,7,15,17,29,40,51,52,57,58,92,96,98,101,113,114,115,120,126,141	1,2,3,6,10,11,112,13,15
4	B2 (87)	1,2,3,6,9,10,11,12,13,14,16,18,19,21,22,23,24,27,31,33,34,35,36,37,41,44,45,47,48,49,53,54,55,56,59,60,61,62,65,66,67,68,69,70,72,73,74,75,76,77,80,82,83,84,87,90,91,95,99,100,102,107,109,116,117,121,122,125,127,130,131,132,133,134,136,137,138,139,140,142,143,144,145,147,148,149,150	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
5	C1 (21)	8,20,25,28,38,39,63,71,78,79,86,88,103,105,106,108,110,111,124,129,146	1,2,3,4,7,8,9,11,12,13,15
6	C2 (15)	26,32,42,43,46,50,64,81,85,89,104,112,118,119,123,	3,4,5,7,9,11,12,13

The treatment was carried out for 15 days with 15 stories from *prathambooks.org.* Each day the students read a story and did the exercises offered by the researcher via G-forms. After reading the story, they answered the following questions based on the story in the form of 10 vocabulary exercises. At the end of each day's treatment, they were provided with 10 vocabularies completed with the definitions in English and the meaning in Indonesian. Here is the list of 15 stories used as the reading treatment.

Table 2. Title of 15 Selected Stories Level 4 on prathambooks.org

No	Title of the Stories	No	Title of the Stories	No	Title of the Stories
1	Kali Wants to Dance	6	Under the Invisibility Cloak	11	Our Beautiful World
2	A Stitch in Time	7	I want to Ride a Motorbike	12	Manikantan Has Enough
3	The Case of the Missing Water	8	Wildlife in a City Pond	13	Marching to Freedom
4	Sudipta Sengupta – The Rock Reader	9	Creatures of Old	14	How Pintu Found Pi
5	Raza Meets the King	10	The Birthday Cake	15	The Cat in the Ghat!

RESULT AND DISCUSSION
Research Finding
1. Descriptive Statistics
a. The Experimental Class's Pre-Test and Post Test Result

The students' responses were in the form of the familiarity scale from Not at All Familiar (1), Slightly Familiar (2), Moderately Familiar (3), Very Familiar (4), and Extremely Familiar (5). Thus, in this test, the scores range from 150 – 750 which would be converted into percentages to decide the category level of students' vocabulary. The higher students' scores mean the higher students' familiarity with each vocabulary.

Table 3. Descriptive Statistics of Experimental Class

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Students' Vocab	32	237	656	497.44	98.199
Post-Students' Vocab	32	251	701	533.25	111.827
Valid N (listwise)	32				

The data above show the minimum, maximum, and mean scores of the vocabulary tests that were administered to the experimental group. First, the experimental class's pre-test vocabulary mean was 497.44 or 66.32%, then it was categorized as average level according to a probable class performance by Valette & Harris (1970, p. 134). Furthermore, the post-test vocabulary mean score was 533.25 or 71.1% and categorized as a good level. The pre-test mean score increased by approximately 4.78% when compared to the post-test mean score. The difference score showed a good improvement in students' vocabularies after reading stories from *prathambooks.org*.

b. The Control Class's Pre-Test and Post Test Result

Table 4. Descriptive Statistics of Control Class

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pre-Students' Vocab	32	182	750	528.06	136.690
Post-Students' Vocab	32	260	740	540.38	105.034
Valid N (listwise)	32				

The data above show the minimum, maximum, and mean scores of the vocabulary tests that were administered to the control group. First, the control class's pre-test mean was 528.06 or 70.40%, then it was categorized as a good level according to a probable class performance by Valette & Harris (1970, p. 134). Then, the post-test's mean was 540.38 or 72.05% also categorized as a good level. The pre-test mean score increased by approximately 1.65%. The difference score showed a good improvement in students' vocabularies in the control class. However, the improvement was not as high as in the experimental class.

Table 5. The Difference between Pre-and Post-Test's Mean

Class		Pre-Test Mean	Post-Test Mean	Differences
Experimental	Students' Vocabulary	66.32	71.1	4.78
Control	Students' Vocabulary	70.40	72.05	1.65

2. Statistical Analysis
a. Normality Test

To make sure the data were normally distributed, a normality test must be performed before utilizing a paired sample t-test for a hypothesis test. The normality test in this research was analyzed using SPSS 25 with the Shapiro-Wilk test because the sample size in each class is less than 50.

Table 6. The Experimental Class's Result

Tests of Normality				
	EXPERIMENTAL CLASS	Shapiro-Wilk		
		Statistic	df	Sig.
EFL STUDENTS' VOCABULARIES	PRE	.950	32	.142
	POST	.954	32	.189

The data above showed the Shapiro-Wilk significance values for the vocabulary tests of EFL college students in the experimental class were higher than 0.05 (0.142 > 0.05 and 0.189 > 0.05).

Table 7. The Control Class's Result

Tests of Normality

CONTROL CLASS		Shapiro-Wilk		
		Statistic	df	Sig.
EFL STUDENTS'	PRE	.974	32	.613
VOCABULARIES	POST	.979	32	.778

The data above showed the Shapiro-Wilk significance values for the vocabulary tests of EFL college students in the control group were greater than 0.05 (0.613 > 0.05 and 0.778 > 0.05).

b. Homogeneity Test

The homogeneity test used by the researcher to prove that the data were homogeneous. The data showed the significance value based on the mean score for the EFL college students' vocabulary test was higher than 0.05 (0.169 > 0.05). Therefore, it could be said that there was homogeneity in the vocabulary data from EFL college students. The following table presents the homogeneity test's result.

Table 8. Homogeneity Test of Control Class

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
EFL STUDENTS'	Based on Mean	1.935	1	62	.169
VOCABULARIES	Based on Median	1.651	1	62	.204
	Based on Median and with adjusted df	1.651	1	57.505	.204
	Based on trimmed mean	1.808	1	62	.184

c. Hypothesis Test

In order to determine whether there was a significant difference between the pre-test and post-test scores, the researcher used a paired sample t-test on SPSS 25 because the data were homogeneous and normally distributed. After that, the researcher used the significance value of the result to make a decision based on the paired sample test's assumption.

Table 9. The Result of Paired Sample Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test Students' Vocabularies	497.44	32	98.199	17.359
	Post-Test Students' Vocabularies	533.25	32	111.827	19.768

Table 10. The Result of Hypothesis Test

		Paired Samples Test							
		Paired Differences							
					95% Confidence Interval of the Difference				
			Std.	Std. Error					Sig. (2-
		Mean	Deviation	Mean	Lower	Upper	t	df	tailed)
Pair 1	Pre-Test - Post-Test	35.813	85.115	15.046	5.125	66.500	2.380	31	.024

The alternative hypothesis (Ha) was accepted and the null hypothesis (H0) was rejected based on the SPPS output of the paired sample test of the pre-and post-test vocabulary of EFL college students (Pair 1). This was because the Sig. (2-tailed) was less than 0.05 (0.24 < 0.05). In conclusion, EFL college students' vocabulary at the UNP English Department improved more when they used digital children's literature from *Prathambooks.org*.

Discussion

The results validated Barone's (2011) idea regarding the use of children's books to enhance vocabulary learning, literacy development, and reduction of reading anxiety. This study supports a number of earlier studies on the effect of using children's books as media to increase vocabulary. This study was the development of previous research conducted by Asnita & Marlina (2022) regarding the effect of using English children's literature to expand the vocabulary of EFL college students. It also demonstrates that both printed and digital children's literature have a beneficial impact on the vocabularies of EFL students. The results of this study are consistent with those of earlier studies by Haviza & Marlina (2022) regarding the benefits of anecdote stories for expanding the vocabulary of EFL college students. After further research, the researcher found the information on students' knowledge of vocabulary given based on CEFR level.

Table 11. Increase Range of Vocabulary According to CEFR Level

CEFR Level	Number Of Vocabulary	Increase Range
A2	6	5.63% - 11.25%
B1	21	1.88% - 15%
B2	87	0.63% - 13.75%
C1	21	3.12% - 15%
C2	15	3.75% - 12.5%
TOTAL	150	0.63% - 15%

The table above presents the increase in students' familiarity with each vocabulary given in the treatments. The students were introduced to 10 vocabularies in each story, thus there were 150 vocabularies in total derived from 15 selected stories from *prathambooks.org*. The vocabularies in treatment were under the A2 (beginner/elementary) to C2 (proficient) level based on the Common European

Framework of Reference for Language (CEFR). The data show the average increase in students' familiarity for each category word level based on their responses using a familiarity scale from 1 – 5. Thus, it can be concluded that using digital children's literature *prathambooks.org* can increase students' vocabularies since the stories include various levels of words.

Table 12. Increase Range of Vocabulary Based on Vocabulary Type by Nation (2000)

Vocabulary Type	Number Of Vocabulary	Increase Range
High Frequency Words	75	1.25% - 14.38%
Academic Words	7	1.88% - 5.63%
Technical Words	4	2.5% - 11.25%
Low-Frequency Words	64	0.63% - 18.75%
Total	150	0.63% - 18.75%

The researcher also analyzed the vocabulary presented in the *prathambooks.org* stories based on vocabulary types categorized by Nation (2000). The 15 selected stories in the treatment consist of 50% high-frequency words, 4.7% academic words, 2.7% technical words, and 42.6% low-frequency words. The data showed that students' familiarity increased by about 0.63% to 18.75% for each vocabulary. Unconsciously, students who read stories from *prathambooks.org* increased their vocabulary knowledge, they learned new vocabularies for daily use, whether for speaking or writing, even writing for academic purposes.

CONCLUSION

The purpose of this study was to determine whether digital children's literature from *Prathambooks.org* has a greater impact on the vocabularies of EFL college students at Universitas Negeri Padang's English Department in the academic year 2022–2023. Since the value of Sig. (2-tailed) was less than 0.05, the data analysis result indicated that the Alternative Hypothesis was accepted. Descriptive statistics were then used to demonstrate that there was a difference between the students' vocabulary pre-test scores and post-test scores. The results of this study corroborate earlier studies regarding the benefits of using children's books to expand students' vocabulary. The vocabulary level of students who used 15 stories from *Prathambooks.org* as part of their daily reading assignment increased by approximately 4.78%, from 497.44 to 533.25. In light of the study's conclusions, the researcher makes the following recommendations:

1. The lecturers or English teachers must be able to select valuable reading sources to support students in improving their vocabularies, such as using authentic digital children's literature on *prathambooks.org* as pleasure reading media.
2. Future researchers can continue to investigate the use of digital children's literature web-based story books for other language skills to find out the maximum benefits of digital children's literature in supporting language learning.

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