

THE EFFECT OF PROBLEM BASED LEARNING BY ASSISTED QUICK RESPONSE CODE ON STUDENTS' ABILITY IN WRITING NARRATIVE TEXT

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Abstract

This research aimed to find out whether Problem Based Learning by Assisted Quick Response Code can effectively affect the students' ability in writing narrative text. The population of this research was the grade X students of SMA Swasta Daerah Sei Bejangkar 2024/2025 Academic Year. Quantitative research was used in this research. The technique of collecting data was by Essay Test. The result showed that the mean of the pre-test was 58,57 for experiment group and 47,10 for control group. The increase in the score is a 27.62%. This implementation of Problem Based Learning by Assisted Quick Response Code is effective to improve students' writing. The data was analysed by using t-test formula. The result of the analysis showed that t-score is higher than t-table ($6,82 > 2.024$) at the level of significance with degree of freedom 38, it means that the H_a is accepted and H_o is rejected.

Keywords: *Problem Based Learning Model, Writing, Narrative Text, QR Code*

INTRODUCTION

English has been a part of Indonesia's education system since elementary school. It is a mandatory subject for all students, as learning English enhances their language skills. As the world continues to advance and become more interconnected, mastering English helps students keep up with global developments and future opportunities.

Teaching English as a Foreign Language (EFL) in Indonesia focuses on helping students develop their English proficiency in all aspects of language learning, including writing, reading, speaking, and listening (Toba et al., 2019). Among these skills, writing plays a crucial role in the learning process. Strong writing skills allow individuals to effectively express their ideas, thoughts, and emotions in a structured and meaningful way.

Writing is the English skill that students find hardest to learn. Writing is a way of thinking, which makes it different from learning other skills. It can help people understand things better (Pardosi et al., 2019). In Mundziroh (2013), Mulyati suggests that writing is a process of conveying ideas through discourse (Yathip & Liang-Itsara, 2024). On the other hand, Dalman (2018) Writing is a form of

communication that allows individuals to convey messages through written text using different tools or media. As one of the four key components of Indonesian language proficiency, writing plays a vital role in human interaction. It enables individuals to express their thoughts and ideas to achieve specific purposes. Based on the 2013 curriculum, students are taught to compose various types of essays, including descriptive essays, narratives, inspirational stories, and other forms of writing (Purwanti 2023).

Students must develop strong writing skills in English to succeed in today's world, especially as they pursue job opportunities after high school or university. Many organizations now require English application letters as part of their hiring process. In the business world, effective writing is also essential for entrepreneurs. Entrepreneurs frequently use formal business letters to maintain communication with partners over long distances, highlighting the importance of strong writing skills for professional success (Bernieke Damanik et al., 2023). Additionally, the ability to write narrative texts is also essential in this context (Rahmawati et al., 2021). In addition, Writing is a process that is often heavily influenced by the genre of the text, so these genre constraints must be incorporated into learning activities. (Harmer, 2004)

Given that writing is essential yet difficult to master, teachers should adopt effective teaching strategies to assist students in crafting descriptive texts more easily. According to (Ramadhania, 2020) In problem-based learning, an issue serves as a stimulus for the learner to identify the knowledge needed to comprehend and resolve the problem. The challenge appears right at the beginning of the learning process. This research employs the According to (Glean, 2022) The PBL (Problem-Based Learning) approach, when applied by teachers in the learning process, particularly in teaching writing, serves as an effective tool to help students produce texts more easily.

Based on the observations in Pengenalan Lapangan Persekolahan (PLP) activity at SMA Swasta Daerah Sei Bejangkar, that research saw that there were students not like writing activity because they lack of vocabularies and sometimes, they confused by the grammar they should use, such us they still confused using simple past tense. Besides that, there are some internal and external factors, such us limitations in learning media that were only based on teachers and textbooks, low motivation, which was the factors that influenced students' interest in learning, especially in students' writing skills.

The aims of the research is to determine the effect of using Problem Based Learning by Assisted Quick Response Code on narrative text writing skills in class X students of SMA Swasta Daerah Sei Bejangkar in the 2024/2025 Academic Year.

METHOD

This research based on the description quantitative method (Unaradjan, 2019) Quantitative research is a systematic investigation of a phenomenon through

the collection of data that can be measured using statistical, mathematical, or computational techniques. This method involves tabulating data in numerical form through statistical calculations. The study described is conducted using an experimental design to assess the students' writing ability in problem-based learning (PBL) assisted by quick response (QR) codes. The goal of this quasi-experimental study is to determine the impact of using PBL with QR code assistance as a model for producing narrative texts.

In this study, two variables are used for analysis: Variable X, the independent variable (PBL assisted by QR codes), and Variable Y, the dependent variable (students' ability to produce narrative texts). There are two groups of students: the experimental group and the control group. The experimental group is taught using PBL assisted by QR codes, while the control group is taught using conventional methods. The sampling technique used is simple random sampling, with the sample consisting of students from class X-1 (experimental group) and X-2 (control group). The design of this research is

Table 1. Two Groups Pre-test Post-test

	retest	Treatment	Post-test
Experimental	X1	Using Problem Based Learning by Assisted Quick Response Code	X2
Control Group	Y2	Using Conventional	Y2

Where A: Experimental Group

B: Control Group

X: Using Problem Based Learning by Assisted Quick Response Code

Y: Using Conventional Way

The data collection process in this study follows a structured and systematic approach. The first stage involves fulfilling essential administrative requirements before beginning data collection. A critical step in this process is obtaining official permission from the principal, which ensures approval for conducting research within the school setting. This authorization is crucial for compliance with regulations and securing the school's full support. After receiving permission, the next phase involves direct classroom observations. These observations aim to analysed various aspects of the learning process and student activities, ensuring that the collected data is relevant and aligned with the research objectives. This stage is essential for gathering accurate and comprehensive data.

1. Pre-test

The students took a pre-test to assess their writing abilities before the experiment began. Both groups completed the pre-test, and their work was graded. The scores from the pre-test were used as preliminary data for the study.

2. Treatment

The experimental group was taught using PBL and an assisted quick response code. The control group, on the other hand, was not taught using PBL and an assisted quick response code; instead, they were only taught with explanations. Both classes studied the same subject and covered the same information.

3. Post-test

The post-test was administered to evaluate the students' performance after the treatment. Once the test was completed, the results were collected. The test was used for both the experimental group and the control group to determine the mean scores.

4. Scoring

The only way to grade students' writing after the post-test is to evaluate their work and assign a score. A writing skill rubric can be used to assess students' work, with categories ranging from excellent to very good, good, fair, or poor.

RESULTS AND DISCUSSION

The result of the students' test can be seen on the following table score.

Table 3. The Sore of Pre-test and Post-test in Control Group

NO	Students' Initial	Score Pre-Test	Score Post-Test	X ²	Y ²	X.Y
1	AB	50	65	2500	4225	3250
2	ADF	40	60	1600	3600	2400
3	AGN	50	70	2500	4900	3500
4	AR	45	65	2025	4225	2925
5	DCP	50	80	2500	6400	4000
6	DFR	50	70	2500	4900	3500
7	DR	50	75	2500	5625	3750
8	DS	45	60	2025	3600	2700
9	KFA	50	70	2500	4900	3500
10	KG	40	65	1600	4225	2600
11	MSS	55	80	3025	6400	4400
12	NZ	50	65	2500	4225	3250
13	RN	40	70	1600	4900	2800
14	RS	50	55	2500	3025	2750
15	RT	50	70	2500	4900	3500
16	SAN	40	70	1600	4900	2800
17	SH	40	60	1600	3600	2400
18	SRM	55	80	3025	6400	4400
19	SRM	45	60	2025	3600	2700
TOTAL		ΣX=895	ΣY=1290	ΣX²=42625	ΣY²=88550	ΣXY=61125

From the data above, it can be seen that the highest and lowest values in the pre-test are:

1. Score 55 are 2 students.
2. Score 50 are 9 students.
3. Score 45 are 3 students.
4. Score 40 are 5 students.

Based on the table above, it can be seen that the highest and lowest values in post-test are:

1. Score 80 are 3 students.
2. Score 75 are 1 student.
3. Score 70 are 6 students.
4. Score 65 are 4 students.
5. Score 60 are 4 students.
6. Score 55 are 1 student.

Based on the data above, it is evident that students' scores in the pre-test were lower compared to the post-test. The mean score for the pre-test was 47.10, and after receiving treatment through conventional methods, it increased to 67.89 in the post-test. This indicates a percentage increase of 44.14% in the scores from the pre-test to the post-test.

Table 4. The Sore of Pre-test and Post-test in Experimental Group

NO	Students' Initial	Score Pre-Test	Score Post-Test	X ²	Y ²	X.Y
1	AAF	50	85	2500	7225	4250
2	ALD	55	85	3025	7225	4675
3	ALV	65	90	4225	8100	5850
4	AM	50	75	2500	5625	3750
5	AMI	70	85	4900	7225	5950
6	ARA	55	90	3025	8100	4950
7	ASF	50	85	2500	7225	4250
8	AYN	50	80	2500	6400	4000
9	BS	65	90	4225	8100	5850
10	DLV	70	90	4900	8100	6300
11	DMS	60	85	3600	7225	5100
12	HAS	60	85	3600	7225	5100
13	IBF	70	90	4900	8100	6300
14	IFR	50	85	2500	7225	4250
15	MBI	55	90	3025	8100	4950
16	MPR	65	85	4225	7225	5525
17	NIL	60	85	3600	7225	5100
18	RAR	60	90	3600	8100	5400
19	RR	50	85	2500	7225	4250
20	SPP	70	90	4900	8100	6300
21	WRD	50	85	2500	7225	4250
TOTAL		ΣX=1230	ΣY=1810	ΣX ² =73250	ΣY ² =156300	ΣXY=106350

From the data above, it can be seen that the highest and lowest values in the pre-test are:

1. Score 70 are 4 students.
2. Score 65 are 3 students.
3. Score 60 are 4 students.
4. Score 55 are 3 students.
5. Score 50 are 7 students.

Based on the table above, it can be seen the highest and lowest values in the post-test is:

1. Score 90 are 8 students.
2. Score 85 are 11 students.
3. Score 80 are 1 student.
4. Score 75 are 1 student.

From the data above, it is clear that students' scores in the pre-test were lower than in the post-test. The mean score in the pre-test was 58.57, and after receiving treatment using PBL assisted by QR Code, the mean score increased to 86.19 in the post-test. This represents a percentage increase of 47.16% in scores from the pre-test to the post-test.

CONCLUSION

This research used a qualitative approach and employed a cluster random sampling technique to select the sample, which consisted of students from X-1 and X-2 at SMA Swasta Daerah Sei Bejangkar for the Academic Year 2024/2025. The data was collected using pre-tests and post-tests, with the essay text serving as the instrument for data collection. Based on the data, a clear difference is observed between the scores of the experimental group and the control group. The experimental group, which was taught using Problem-Based Learning (PBL) assisted by Quick Response (QR) codes in writing narrative texts, scored higher than the control group, which was taught through conventional methods.

It can be concluded that Problem-Based Learning assisted by QR codes has a significant effect on students' narrative writing skills. The post-test scores of students taught using PBL with QR code assistance were higher compared to their pre-test scores, suggesting that this method effectively improves students' writing abilities. One reason for this is that the PBL model, enhanced by QR codes, engages students and makes them more interested in learning, which in turn helps them practice writing narrative texts more effectively.

Then, the result (H_0) is rejected and (H_a) is accepted, it showed that Problem Based Learning by Assisted Quick Response Code shows the significant effect on students' writing of narrative text.

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BIBLIOGRAPHY

- Bernieke Damanik, Bobby Pramjit Singh Dhillon, Masta Magdalena, & Henni Natalina Sijabat. (2023). an Analysis of Students' Difficulties in Writing Descriptive Text. *Jurnal Pendidikan Dan Pengajaran (JUPEJA)*, 1(1), 18–24.
<https://doi.org/10.69820/jupeja.v1i1.41>
- Glean, S. P. (2022). *The Effect of Problem Based Learning on Students' Ability in Writing Descriptive Text at Grade VII Students of SMP Negeri 2 Tebing Tinggi*.
- Harmer, J. (2004). *How to Teach Writing*.
- Pardosi, J. D., Veronika Br. Karo, R. E., Anggun S. Sijabat, O., Pasaribu, H., & Pasca Tarigan, N. W. (2019). An Error Analysis of Students in Writing Narrative Text. *Linguistic, English Education and Art (LEEA) Journal*, 3(1), 159–172.
<https://doi.org/10.31539/leea.v3i1.983>
- PURWATI, L. (2023). Penerapan Model Pembelajaran Discovery Learning Pada Materi Descriptive Text Di Kelas Vii Smp Al Azhar Syifa Budi Jatibening. *STRATEGY : Jurnal Inovasi Strategi Dan Model Pembelajaran*, 3(3), 250–254.
<https://doi.org/10.51878/strategi.v3i3.2424>
- Rahmawati, S., Masykuri, M., & Sarwanto, S. (2021). The effectiveness of discovery learning module classification of materials and its changes to enhance critical thinking skills. *Jurnal Inovasi Pendidikan IPA*, 7(1), 74–84. <https://doi.org/10.21831/jipi.v7i1.33253>
- Ramadhania, M. R. (2020). *THE EFFECT OF PROBLEM BASED LEARNING ON STUDENT ABILITY IN WRITING NARRATIVE TEXT (Quasi Experimental Research at Tenth Grade Students of SMKS By : MERISA RANI RAMADHANIA NIM : 1516230044 STUDY PROGRAM OF ENGLISH EDUCATION FACULTY OF TARBIYAH AND TADRIS STATE INSTITUTE OF ISLAMIC STUDIES (IAIN) OF BENGKULU 2020*.
- Toba, R., Noor, W. N., & Sanu, L. O. (2019). The Current Issues of Indonesian EFL Students' Writing Skills: Ability, Problem, and Reason in Writing Comparison and Contrast Essay. *Dinamika Ilmu*, 57–73. <https://doi.org/10.21093/di.v19i1.1506>
- Unaradjan, D. D. (2019). *Metode penelitian kuantitatif*. Penerbit Unika Atma Jaya Jakarta.
- Yathip, C., & Liang-Itsara, A. (2024). Effectiveness of the QARR Strategy to Enhance Thai EFL Students' Performance in Reading Comprehension Test. *LEARN Journal: Language Education and Acquisition Research Network*, 17(1), 240–263.