The Effectiveness of the RADEC Learning Model on the Writing Skills of Procedure Text in Fourth Grade SDN 02Danasari Pemalang Students

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Abstract. In the 4.0 era, a number of skills are needed that can lead someone to be successful in life. Writing is one aspect of language skills that is important to have in the 4.0 era. Teachers need to carry out learning innovations so that students have writing skills by taking advantage of technological sophistication and the amount of literacy that exists. Empirically, there are many students who experience difficulties in pouring ideas into written form, so this research aims to overcome this using the RADEC model learning approach. The locus of this research is SDN 02 Danasari for the 2022/2023 academic year, even semester. The population of this study were all 30 grade IV students and all of them were used as samples. The research instrument was a test in the form of a description of 5 items. This research is a quasi- experimental quantitative research with a One-Group Pretest-Posttest Design. Data were analyzed using IBM SPSS version 22 software. The results obtained were procedural text writing skills with an average pretest score of 50.67 while in the posttest it was 82.43. The results of the N-Gain test score of 0.663 include the criteria for a moderate average score. While the results of the N-Gain pretest posttest score of 63.33 are included in the quite effective category. Testing the hypothesis of the ability to write procedural texts obtained that the use of the RADEC learning model is effective in increasing the skills of writing procedural texts for fourth grade students at SDN 02 Danasari.

Keywords: RADEC model, effectiveness, procedure Text.

1 Introduction

The 21st century is developing very rapidly. The flow of globalization with the support of increasingly sophisticated communication technology has made this century develop very quickly. To answer the challenges of this era, a number of 21st century skills are needed. These skills are known as communication, critical thinking and problem solving, collaboration, and creative thinking, which stands for 4C [1]. Students as the next generation of the nation need to be prepared to be able to respond properly and correctly to the challenges of life in the 21st century. In this regard, the learning carried out by students is sought to support the formation of 21st century skills. Thus the Pancasila Student Profile which is expected by the government can be realized.

One form of 21st century skills is communication. Aspects of communication skills in

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the 21st century are skills in conveying thoughts, ideas, ideas, knowledge, and information to others. Not only in spoken and written form, but in the form of symbols, images, graphics or numbers. These skills include listening skills, obtaining information, and conveying ideas in front of many people [2]. Communicating has the goal of gaining a better shared understanding of important issues for all parties involved. Communication activities can be said to be successful if other people understand the ideas conveyed. Types of communication can be in the form of oral or written.

According to Hartati [3] writing is the activity of expressing ideas, ideas contained in a person's mind into written form including symbols and numbers with certain rules and stages which form a unified whole. Writing is a processof development that is gradual little by little. Someone can make good writing if he/she has experience, time, opportunity, training in special skills, and direct teaching to become a writer.

Learning is the right effort to instill knowledge, skills and shape the attitude of students. In line with this, Kosasih and Sumarna [4] define learning as the interaction between teachers, students, curriculum, methods, facilities and media and other things that support learning activities. Clearly in the description in the UU Sistem Pendidikan Nasional No. 20/2003 that learning is an interaction process that occurs involving teachers, students, learning resources in a learning environment. The purpose of learning is to find out whether there are changes in knowledge, skills or attitudes before and after the learning is carried out. Therefore there must be learning innovationscarried out by the teacher so that students acquire 21st century skills.

One of the learning models that directs students to acquire writing skills is the RADEC model. Learning using the RADEC model is one of the learning models that requires human resources to have high-level skills. In leading the learning of a teacher plays an important role when using the RADEC model. The RADEC learning model has syntax, including: (1) Students read the source material and look for other literacy sources (R); (2) Students answer pre-learning questions made by the teacher (A); (3) Students study in groups to discuss material or confirm each other's answers (D); (4) In classical and outline the teacher explains the material being discussed (E); and (5) Student create some activities based on previous steps (C).

There some conditions that support the implementation of the RADEC learning model. Firstly, the current curriculum requires a learning process that allows students to develop their potential based on their talents and interests so that good human beings are formed spiritually, socially, knowledge and skills. Second, currently many sources of information are available in the form of textbooks, companion books and other sources of information available on the internet. Innovative learning designs requirea lot of time for one lesson [5]. Because it is seen that the process of learning design and implementation is complicated, teachers tend to use practical and fast methods, namely lectures. This brings unfavorable consequences for students' activities to construct their knowledge and skills.

The essence of learning Indonesian in elementary schools is essentially learning to communicate. In order for students to be able to communicate using good and correct Indonesian, they are required to master four aspects of Indonesian language skills including listening, speaking, reading and writing [6]. One aspect of language skills is writing procedure text. The procedure contains the steps of an activity that are closely related to each other. A procedure is an activity in which there are repeated steps in the same way [7]. Thus the procedure text can be interpreted as a text which contains the activity steps to complete a job.

Empirically, students at SD Negeri 02 Danasari have low writing skills. This can be seen from several visible features. First, they lack motivation to write such as copying material summaries on the blackboard or making material summaries for high grades. Most of them

complain and rarelycomplete their writing assignments on time even though they have enough time. Second, only a small part of their writing complies with the rules of good and correct Indonesian. In addition to inappropriate grammar, there are also many students who cannot read their own writing because their writing is not neat and many letters are missed even though they are already in grade 4 or in phase B of the independent curriculum. Third, because these writing skills are closely related to listening and reading skills, due to students' low interest in reading, the vocabulary they master is also small. This makes it difficult for them to put the ideas that are in their minds into writing.

Previous research on the use of the RADEC model showed that there a difference interest in learning Indonesian between those who use the RADEC learning model compared to those who use the conventional model, namely cetah [8]. Research using other RADEC models revealed has influenced the students' writing abilities [9].

Learning using the RADEC method can be applied by teachers to improve procedural text writing skills. The learning steps include Read, students are directed to read texts belonging to the procedural genre. They can read from the reading provided by the teacher through the link that has been made. In this stage they do activities at home. Answer, students answer questions made by the teacher from reading the procedure text they have read. Questions made by teachers are directed toHigher Order Thinking Skill (HOTS) questions to develop their critical thinking skills.

The activityof answering this question is also carried out by students at home discuss. In this stage, students form small groups in the classroom to discuss the material for writing procedure texts, both reading and pre-learning questions they have worked on before. Next, Explain, at this stage students personally explain and present the results of group discussions that they agreed upon from the Discuss stage.

The last stage is Create, students individually create a procedure text that they have never read using their own language according to the rules of writing the procedure text they have learned. For example, the procedure for making the Typical Woven Sarongs of Pemalang Regency, Procedures for Cultivating Palace Mango Trees, and others. at this stage students personally explain and present the results of group discussions that they agree on from the Discuss stage.

Based on the assumptions of researchers by looking at students' writing skills which are still low, there are problems that must be investigated. For this reason, the author will conduct a study entitled "EFFECTIVENESS OF THE RADEC LEARNING MODEL ON THE TEXT WRITING SKILLS OF PROCEDURE STUDENTS IN CLASS IV SDN 02 DANASARI PEMALANG".

2 Research Methods

2.1 Survey Targets and Procedures

This research is included in quantitative research. The research was conducted in class IV SDN 02 Danasari, which is located in Danasari Village, Pemalang District, Pemalang Regency, Java,Central Java Province. The population that became the subject of this study were all fourth grade students at SDN02 Danasari, with total amount 30 childrens. The sample used in this study was class V with a sampling technique, namely saturated sampling because the entire population was used as a sample because the population was small. The research method used is quasi-experimental. Quasi research is a research design using a comparison group to determine the effect of the treatment [10].

2.2 Survey Items

The research design used was the One-Group Pretest-Posttest Design. The design of this study in one class before being given treatment students were given a pretest (initial test) which aimsto find out the initial state of each student in learning. Then, students were given treatment using the RADEC learning model and after that they were given a posttest (final test) to find out whether there was a difference in the achievement of students' learning outcomes in writing procedure texts beforeand after being given treatment.

2.3 Analysis Procedure

Data collection that the author did with 2 techniques. The first technique is a test, namely in the form of a description of 5 items to assess the achievement of learning outcomes in writing procedure texts. The second technique is documentation, namely in the form of notes and photos ofactivities during learning. This research was conducted during two six-hour lessons. The data analysis technique in this study is the validity test using Product Moment, and the reliability test using the Alpha formula.

After obtaining the research data, then analyzed statistically by testing the pretest and posttest values, testing the average value between the pretest and posttest using the N- Gain test to determine the level of effectiveness of the action. Furthermore, testing the normality of the data with the Shapiro Wilk test, Levene's homogeneity test and hypothesis testing in the form of a Paired t Test, all of which use the SPSS software program from IBM version 22. In this hypothesis test, the significance level determined is 0.05 or 5%. The decision to test the hypothesis is determined by the criteria if the value of Sig.(2-talled) <0.05 then Ho is rejected and Ha is accepted. The following is the distribution of gain scores and categories of interpretation of the effectiveness of N-Gain.

Table 1. The N-Gain Score Categories

N-Gain Value	Category
g > 0.7	Tall
0.3 < g < 0.7	Currently
g < 0.3	Low

Source: Melzer in Syahfitri, 2008: 33

Table 2. Category Interpretation of N-Gain Effectiveness

Percentage (%)	Interpretation
< 40	Tall
40 – 55	Less effective
56–75	Effective enough
> 76	Effective

Source:Arikunto (1999) in Arini (15)

3 Results and Discussion

Data on the acquisition of learning outcomes in writing procedural texts for class IV students in the pretest and posttest activities are presented in table 1 below.

Table 1. Data Acquisition of Learning Outcomes Writing Procedure Texts

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre Test	30	35	75	50.67	9.803
Post Test	30	70	100	82.43	8.411
Valid N (listwise)	30				

Based on the data in table 1, it is known that the pretest average value is 50.67 while the posttest average value after being given treatment in the form of RADEC model learning changes in the results, namely 82.43. From the average results of the pretest and posttest there was an increase in the results between before and after being given treatment. The calculation results obtained by the N-Gain results can be seen in **Table 2**.

Table 2. N-Gain Calculation ResultsFrom the calculation results, the average N-Gain

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
NGain_skore	30	.40	1.00	.6633	.13803
NGain_persen	30	40.00	100.00	66.3279	13.80325
Valid N (listwise)	30				

score if

The categorized into the criteria for an average N-Gain score is moderate. This is because 0.3<0.663< 0.7. The average value of the N- Gain score pretest posttest for the level of effectiveness is categorized into quite effective. This is because based on the effectiveness standard it is quite effective, namely with an average value range of 60 - 79.99 and the average N-Gain score pretest posttest is 66.33 percent.

Table 3. The Result of Normality Test using SPSS

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre Test	.160	30	.047	.953	30	.204
Post Test	.147	30	.096	.942	30	.100

a. Lilliefors Significance Correction

Table 4. The Result of Homogeneity

Test of Homogeneity of Variances

Hasil Belajar

Levene Statistic	df1	df2	Sig.
.298	1	58	.587

The results of the normality test show that the data on the achievement of learning outcomes in writing procedural texts of students at the pretest has sig. > 0.05 which is equal to 0.204. At the posttest stage it has a sig, > 0.05, which is equal to 0.100. This value is greater than the value of α =0.05 (sig. > 0.05) so that the variable data on students' achievement in learning to write procedural texts is normally distributed. The results of the homogeneity test for the achievement of learning outcomes in writing procedural text of students in the pretest and posttest showed the value of Sig. 0.587 so that it can be said that the sig value > 0.05. Thus the data on the achievement of learning outcomes in writing procedural texts is said to be homogeneous.

Table 5. The result of T-Test

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1 Pre Test - Post Test	-31.767	4.967	.907	-33.621	-29.912	-35.032	29	.000

The results of the analysis and calculation of the hypothesis testing data performed show the Asymp value. Sig. (2-taled) of 0.000. So it can be said that Asymp. Sig. (2-taled) <0.05, then according to the research hypothesis H0 is rejected and Ha is accepted. Based on the hypothesis statement, it can be concluded that "The use of the RADEC learning model is effective on the ability to write procedural texts for fourth grade students at SDN 02 Danasari".

Based on the results of the calculations above, it can be concluded that learning using the RADEC model has better learning outcomes in procedural text writing skills when compared to learning using conventional models or lectures. From the average value of the pretest and posttest that the RADEC model is effective in achieving student learning outcomes in writing procedure texts. During the lesson the teacher provides

motivation and essential questions with the HOTS technique so as to encourage students' thinking power. Students always communicate with the teacher regarding the learning difficulties they experience, both technical regarding how to access information from internet pages and the content (material) they are studying. So that they can provide new ideas and also enrich their knowledge and skills.

4 Conclusion

Based on the results of data analysis and hypothesis testing, it can be concluded that the RADEC learning model is effective in increasing the ability to write procedural texts for fourth grade elementary school students. So it can be said that the use of the RADEC learning model is effective in increasing the skills of writing procedural texts in class IV students at SDN 02 Danasari Pemalang. The RADEC learning model can be used as an alternative that can be used by teachers to improve various skills or competencies of students.

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