Research Article

Problem Based Learning Model Assisted by Digital Media on Speech Text Materials in Senior High School/Vocational School

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Abstract

This research aims to obtain a Problem Based Learning model assisted by Digital Media that is effective in Learning Class XI Speech Text Material in Senior High School/ Vocational School. The research uses qualitative methods with the ADDIE model design. The data used is primary data in the form of the results of the student learning process, data from interviews, observations and documentation studies. This research aims to obtain a Problem Based Learning model assisted by Digital Media that is effective in Learning Class XI Speech Text Material in Senior High School/ Vocational School. The research uses qualitative methods with the ADDIE model design. The data used is primary data in the form of the results of the student learning process, data from interviews, observations and documentation studies. The research location was Madrasah Aliyah (MA) Ma'had Al-Zaytun Indramayu, State High School (SMAN) Indramayu, and State Vocational High School (SMKN) Indramayu. Based on the recapitulation results of pre-test and post-test calculations using paired sample t-test in three schools, it can be explained that the average pre-test and post-test scores in the three schools have significant differences. At MA Al-Zaytun the difference in average value is 2.58541, calculations using the paired t-test produce t-count: 11.307, and at a significance level of 0.05, t-table: 1.697. This means that t-count > t-table, then it is in the "Very Significant" category. At SMAN Gantar, the difference in average value was 2.10819, when calculated using the paired t-test, it resulted in t-count: 17.709, and a significance level of 0.05, in the t-table: 1.697. This means that t-count > t-table, then it is in the "Very Significant" category. At SMKN I Gantar, the difference in average value was 2.34970, when calculated using the paired t-test, it resulted in t-count: 16.7820, and a significance level of 0.05, in the t-table: 1.697. This means that t-count > t-table, then it is in the "Very Significant" category. Thus, it can be concluded that the Problem Based Learning model assisted by Digital Media in Class XI Speech Text Material is able to improve students' speech competence.

Keywords

Model, Problem Based Learning, Syntax

1. Introduction

Based on the author's observations in class when learning speech texts, it is often found that students' speeches do not meet good linguistic rules. In terms of the structure of the speech text, it is still not systematic, between the opening, content and conclusion. Many of them start with a conclusion so they don't explain the content of the speech. Submission of arguments is weak because it is not supported by adequate theory. The use of words, speaking style and speech material are often ignored by teachers as educators, causing the speeches delivered to be often not understood by listeners.

Apart from that, based on the author's interviews with Indonesian language teachers in secondary schools regarding speech text learning models in class, many of them still use direct learning models that have no pattern. The direct speech learning model has no pattern, meaning that suddenly the teacher orders students to create speech texts without going through a systematic speech text creation process, then the teacher asks students to make speeches in class. As a result, the students' speeches were unsatisfactory.

2. Literature Review

One learning model that prioritizes group collaboration critically is the Problem Based Learning Model. Komalasari recommends types of learning models that can be used in implementing Curriculum 2023, including: Problem Based Learning, Cooperative Learning, Project-based Learning, Contextual Teaching, Concept Learning [8].

The Problem Based Learningnmodel is a learning model that approaches authentic problems, students can construct their own knowledge, are able to develop more adequate skills through discovery, student independence and increasing their own self-confidence [6]. This model directs learning towards understanding problem resolution. The emphasis of learning lies on student activities to produce products by applying the skills of researching, analyzing, creating, and even presenting learning products based on real experience.

The Problem-Based Learning Model is a learning activity that presents contextual problems to students so that it can stimulate students to study more actively [18]. Contextual problems mean problems that society is currently facing. Problem Based Learning is a process of teaching and learning activities related to real world problems as a basis for thinking so that students are able to think critically in solving problems, gaining knowledge related to the subject matter discussed [9]. Real-world problems provide an important basis for the development of this model [9].

The problem-based learning model has distinctive characteristics that differentiate it from other learning models. Problem-based learning is a teaching method that is characterized by the use of contextual problems for students to think critically, be skilled in problem solving, and be

knowledgeable about the essence of a concept [17]. As stated by Trianto, the Problem Based Learning Model is not designed for teachers to provide as much information as possible to students, but rather to help students develop critical and independent thinking skills [16]. Therefore, the learning environment must be able to support the Problem Based Learning program. A learning model is also defined as a conceptual framework that describes systematic procedures for organizing a learning system to achieve certain learning goals and functions as a guide for learning designers and teachers in planning and implementing learning activities. The problem-based learning model, according to Rusman, aims at mastering learning content from heuristic disciplines and developing problem-solving skills [13].

2.1. Syntax of the Problem Based Learning Model

Arends, R. the Problem Based Learning model has the following syntax:
1. Student orientation to problems.
2. Organizing students to study.
3. Guide individual and group investigations.
4. Develop and present the results of the work.
5. Analyze and evaluate the problem solving process [1].

2.2. Digital Learning Media

Learning media is anything that can be used to convey lesson information to students. By using learning media, it is hoped that it will be able to stimulate attention, will, thoughts, feelings, so that a good teaching and learning process can occur. According to Arsyad, learning media includes everything that can be used to convey information in the teaching and learning process, so that it can stimulate students' attention and interest in learning [4]. According to Daryanto, learning media is an intermediary that connects the sender of the message with the recipient of the message, in this case the message is in the form of learning material to achieve a goal in matters related to educational programs [7].

2.3. Speech

Speech is often also called rhetoric. Speech is a discourse spoken in public. In general, speeches are addressed to people or groups of people to express congratulations, welcome guests, commemorate certain major holidays and so on [7]. In line with Rahmat, a speech is a series of systematically arranged words delivered to the general public in certain situations and conditions with the aim of conveying thoughts and feelings to other people so that they follow our wishes [12]. According to Maarif, a speech text has the following characteristics: it has a clear purpose, the content of the

material is clear and easy to understand, the material must be objective, contain new insights that attract attention; and there is a conclusion at the end of the speech [10].

3. Research Methods

The research is development research using qualitative methods using the ADDIE model approach. Development research is a research method used to produce a particular product and test the product's effectiveness [15]. This media development research was carried out using steps in accordance with the steps in the ADDIE development model [5]. This research aims to determine the characteristics, feasibility and effectiveness of the Digital Media Assisted Problem Based Learning model on Speech Text Material in SMA/SMK. It is highly expected that someone can make a good speech. There are several factors that an orator must pay attention to, including: strong beliefs, broad knowledge, rich vocabulary, and serious practice [3].

4. Data Analysis

The author assesses students' attitudes during the learning process. The aspects assessed are discipline, honesty, responsibility and tolerance. Data is a series of facts and figures that can be used as material to compile information [2].

The author summarizes the results of attitude assessments at three schools, namely MA Al-Zaytun (S-1), SMAN Gantar (S-2), and SMKN Gantar (S-3). The results of obtaining attitude scores are as follows:

Based on the analysis of the attitude scores from the three schools, it can be explained that the attitude scores of students at MA AL-Zaytun, who received the SB (Very Good) category were 27 (90%), and B were 3 (10%), while the attitudes of students in the Poor category Good and Very Poor: 0 (none). The attitude scores of students at SMA N Gantar who received the SB category were 26 (87%), and category B were 4 (13%), while the attitudes of students in the Poor and Very Poor categories were: 0 (none). Regarding the attitude scores of students at SMKN Gantar, those who received the SB category were 25 (83%), and the B category was 5 (16%), while the attitudes of students in the Poor and Very Poor categories were: 0 (none). So, it can be said that the student response during the learning process using the Problem Based Learning model was very good.

This comparison aims to determine the extent of improvement between before and after implementing the Problem Based Learning model.

Pretest and posttest data were obtained from three schools.

The author conducted a pretest and posttest at Madrasah Aliyah Ma'had Al-Zaytun in class XI for 30 students. The pretest and posttest results were analyzed using the SPSS application as folows:

Table 1. Comparison of Pretest and Posttest in Madrasah Aliyah Al-Zaytun.

		Paired Differences					**t**	**df**	**Sig. (2-tailed)**
		Mean	**Std. Deviation**	**Std. Error Mean**	**95% Confidence Interval of the Difference**				
					Lower	**Upper**			
Pair 1	Pre-Tes - Post-Tes	-29.23333	14.16086	2.58541	-34.52108	-23.94558	-11.307	29	.000

Based on list above, the paired sample t-test at Madrasah Aliyah Al-Zaytun above, it is known that the difference in the average value of learning outcomes before and after using the Problem Based Learning Model Assisted by Digital Media in Speech Text Material in SMA/SMK is 2.58541; The calculated t value is 11,307 > 1.697; Sig value. (2-tailed) 0.000 < 0.05. Based on these values, it can be concluded that there are differences in learning outcomes before and after

using the Problem Based Learning Model Assisted by Digital Media in Speech Text Material in SMA/SMK. This difference has increased significantly.

The author conducted a pretest and posttest at Gantar I State High School in class XI for 30 students. The pretest and posttest results were analyzed using the SPSS application as follows:

Table 2. *Comparison of Pretest and Posttest at State Senior High School I Gantar.*

		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	-37.33333	11.54701	2.10819	-41.64506	-33.02161	-17.709	29	.000

Based on list above, the paired sample t-test at State Senior High School I Gantar, it is known that the difference in the average value of learning outcomes before and after using the Problem Based Learning Model Assisted by Digital Media in Speech Text Material in SMA/SMK is 2.10819; The calculated t value is 17.709 > 1.697; Sig value. (2-tailed) 0.000 < 0.05. Based on these values, it can be concluded that there are differences in learning outcomes before and after using the Problem Based Learning Model Assisted by Digital Media in Speech Text Material in SMA/SMK. This difference has increased significantly.

The author conducted a pretest and posttest at Gantar State Vocational High School I in class XI for 30 students. The pretest and posttest results were analyzed using the SPSS application as follows:

Table 3. *Comparison of Pretest and Posttest at State Vocational School I Gantar.*

		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	-39.43333	12.86986	2.34970	-44.23902	-34.62765	-16.782	29	.000

Based on list above, the paired sample t-test at State Vocational School I Gantar, Indramayu above shows that the difference in the average value of learning outcomes before and after using the Problem Based Learning Model Assisted by Digital Media in Speech Text Material in SMA/SMK is 2.34970; The calculated t value is 16,782 > 1.697; Sig value. (2-tailed) 0.000 < 0.05. Based on these values, it can be concluded that there are differences in learning outcomes before and after using the Problem Based Learning Model Assisted by Digital Media in Speech Text Material in Senior High School/ Vocational School. This difference has increased significantly. From the calculation of the differences between the pretest and posttest for each school above, a summary can be made as follows:

Table 4. *Recapitulation of Pretest and Posttest 3 Schools.*

Sekolah	Mean	t-Count	t-table (0,05)	Information
School -1	2.58541	11.307	1,697	Very Significant
School -2	2.10819	17.709	1,697	Very Significant
School -3	2.3497	16.782	1,697	Very Significant

Based on the recapitulation above, it can be explained that the average pretest and posttest scores in the three schools are different. At MA Al-Zaytun the difference in average value is 2.58541, calculations using the paired t-test produce t-count: 11.307, and at a significance level of 0.05, t-table: 1.697. This means that t-count > t-table, then it is categorized as "Very Significant."

At SMAN I Gantar, the difference in average value was 2.10819, when calculated using the paired t-test, it resulted in t-count: 17.709, and a significance level of 0.05, in the t-table: 1.697. This means that t-count > t-table, then it is in the "Very Significant" category.

At SMKN I Gantar, the difference in average value was 2.34970, when calculated using the paired t-test, it resulted in t-count: 16.7820, and a significance level of 0.05, in the t-table: 1.697. This means that t-count > t-table, then it is in the "Very Significant" category.

Thus, it can be said that the results of calculations using the paired t-test from the three schools above, the Digital Media Assisted Problem Based Learning model in Class XI Speech Text Material is able to improve student learning outcomes.

5. Discussion

Whatever model the teacher applies in learning will affect the quality of students. There are many learning models suggested by education experts, one of which is the Problem Based Learning model. This model is designed in such a way that it can stimulate students' interest in learning. Based on observations in the learning process in class, the Problem Based learning model has a very systematic syntax. This model begins by raising a problem. Problems raised at the beginning of learning are expected to arouse enthusiasm for learning. Students will be challenged to find out the problem, then want to find a solution.

By following the existing syntax, students are invited to actively move and think. Students are given the widest freedom to use the available time allocation. With various group activities, they can discuss freely about things that need to be understood together. Perseverance and thoroughness in identifying problems is quite brain draining. The brain will actively work so that the brain will be trained to become an intelligent brain. Students will feel a direct impact, namely their hearts will be happy because they can exchange opinions. Students will be happier if they are involved in learning.

After completing the content analysis activity, the next activity is investigation. In this investigation step, all abilities synergize into one, namely problem solving. students are forged by presenting their work. By presenting their work, students are given a sense of responsibility for what they have researched. After completing the presentation activity, students are given the freedom to evaluate themselves. Each individual responds to what has been done. In this phase, attitudes will emerge, some of which are more disciplined,

responsible and tolerant.

Until now, learning speech texts has not been a material that students have been looking forward to. Speech text learning in class does not yet use an appropriate learning model. Meanwhile, speech is one part of speaking skills, while speaking skills are part of the professional responsibility of teachers to teach, educate, and train students so they can make good speeches. A speech is speaking in public, in front of a crowd, and the opponent speaking in a speech is more than one person. Problem-based learning leads learners to learning effectiveness [14]. Students are not only passive recipients of knowledge but active learners in the process towards the goal. This student activeness will be more progressive with the efforts of teachers and students in applying the model, so that changes in the behavior of students are realized [11].

6. Conclusion

Based on the results of research and discussions related to the Problem Based Learning model which has been declared valid, it can be concluded as follows:

1. Based on the results of observations during the learning process, the characteristics of the Digital Media Assisted Problem Based Learning model in Class direction of critical and systematic thinking, as well as being able to improve speech competence.
2. Based on the results of learning expert validation, the Problem-Based Learning Model Assisted by Digital Media in Speech Text Material was designed by paying attention to the learning model applied by teachers in the classroom. Three validators stated that it was suitable for use for learning speech text material.
3. Based on the results of the comparative analysis between the pretest and posttest from the three schools, it shows that there are significant differences between before and after the implementation of the Problem Based Learning model. This difference occurred after the results of the Paired Sample Test were obtained and the average scores of the three schools were obtained. Thus, the Problem Based Learning model assisted by Digital Media on Speech Text Material in SMA/SMK is very effective in improving competence in writing speech texts. Thus, this learning model is very suitable for use in learning speech texts in class.

Abbreviations

SMAN: Sekolah Menengah Atas Negeri
SMKN: Sekolah Menengah Kejuruan Negeri
SMK: Sekolah Menengah Kejuruan
MA: Madrasah Aliyah

Conflicts of Interest

The authors declare no conflicts of interest.

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