IMPROVING STUDENT CREATIVITY AND LEARNING OUTCOMES THROUGH THE PODCAST-BASED INQUIRY LEARNING MODEL

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ABSTRACT

This study aimed to increase creativity and student learning outcomes through a podcast-based inquiry learning model. This research was conducted at SMA PGRI 2 Jambi City in February-April 2022, with the subjects of this research being students of class X IPS 2. This type of research was classroom action research which was conducted six times. The data were obtained using questionnaires, observations, interviews, documentation studies, and field notes which were then analyzed through qualitative descriptive techniques. The results showed that the application of the podcast-based inquiry learning model to history subjects had gone well. The test results showed that the average value of learning outcomes had increased from 70.5 in cycle I to 83.3 in cycle VI. The average student creativity scores also increased from cycle I, with a score of 70.5 to 84.2 in cycle VI. These numbers show that the podcast-based inquiry learning model can improve student learning outcomes and creativity.

Keywords: *Inquiry models, creativity, learning outcomes, podcasts*

INTRODUCTION

The Curriculum 2013 is the applicable national curriculum in the Indonesian education system. This application is believed to be able to develop the students' potential through each learning activity. This goal is reflected in the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 67 of 2013, (in Suhendra 2019: 150), which states that one of the characteristics of the Curriculum 2013, namely developing a balance of social attitudes, curiosity, psychomotor, cooperation, with intellectual abilities and creativity.

Creativity emerges from a creative thinking process. Creative thinking, according to Yunus (2014: 9-10), is the ability to solve problems and acts as one of the broader orientations of modern learning that will equip students with other skills that encompass them. These skills involve the skills to use various reasons effectively, the ability to think systematically, the ability to consider and make decisions, and the ability to solve problems.

Creativity, according to Mahfud (2017: 12), is the ability to create thoughts, see something new, the ability to form concepts, not just remember, generate new answers to questions, ask existing questions and get answers to new questions. Developing the creativity of each individual is essential. Efforts that can be made to develop students' creative thinking patterns include holding productive exercises that can increase creativity in education, especially among students and the need for support from all parties. In building creativity, character, intelligent and quality human resources, teachers are required to have good skills in conveying material.

Good material delivery affects students' ability to absorb the material being studied. In addition, using attractive models can help students overcome the difficulties they experience while participating in learning activities such as material in History subjects. Teachers must be able to choose a learning model that is appropriate to the development and status of students in the classroom. Furthermore, teachers are also required to understand their surroundings, starting from the facilities provided by the school, conditions in the classroom, and many more.

One of the learning models that can encourage students to think creatively in solving problems is the inquiry-based learning model (Kadir et al., 2017). Inquiry-based learning is student-centered learning that enables acquiring knowledge by engaging them to form questions about a topic, encouraging them to investigate and use evidence to find or create solutions to problems, increasing the use of new knowledge in contexts they can relate to, and encouraging sharing of knowledge with others (Hughes & Ellefson, 2013; Sriwongchai et al., 2015).

Previous studies have shown evidence that the inquiry learning model can improve learning achievement in History subjects at the junior high school level (Rani, 2020). Hadiyanti (2022) says that the inquiry learning model can solve learning problems, improve learning outcomes, and make History learning more active and creative at the high school level. Based on some of these studies, the researchers chose the research location at SMA PGRI 2, Jelutung District, Jambi City. History subject is one of the subjects studied by students at SMA PGRI 2 Jambi City.

A podcast is a digital audio recording medium distributed over the Internet and is usually in a multi-episode format. Most podcasts are in audio format, but there are also pdf or video file formats, even though they are rarely found. Podcasts have a variety of content ranging from education, entertainment, sports, technology, lifestyle, business, and others. During lessons, podcasts allow teachers to play interactive audio content that students can listen to anytime and anywhere. The presence of podcasts is closely related to the millennial generation.

Podcasts can improve learning outcomes in several materials. For example, students' ability to speak in English increases after being given podcast media (Samad, Ahmad, & Diana, 2017: 97). Mayangsari & Tiara (2019) also state that podcast media is considered adequate for increasing learning outcomes. Students' motivation to learn was relatively increased through podcasts as a medium in online courses (Bolliger, Supawan, & Christine, 2010). Based on this, researchers were interested in using podcast media in the design of inquiry learning models in history subjects.

The History subject has received an unfavourable view in the eyes of students. History lessons themselves are considered boring, uninteresting, and difficult and rely only on memorization. Based on the pre-survey results, the History teachers at SMA PGRI 2 used a teacher-centred approach during the learning process in the form of lecture and question-and-answer methods. Teachers rarely used attractive learning models or media, impacting less active students. Students who were quiet and rarely asked questions were more likely to have learning difficulties and not understand the material presented by the teacher. Based on the observations results during the learning process, the researchers collected data about student creativity and student learning outcomes in history subjects as follows.

Table 1.
Daily Examination Results of the History Subject

No.	Score	KKM	Class X IPS2	Percentage
1.	≥70	Complete	10	31%
2.	≤70	Not Complete	22	69%
	Total		32	100%

Source: Daily Examination 1, Class X IPS 2 of Senior High School PGRI 2 Jambi City

No.	Score	KKM	Class X IPS2	Percentage
1.	≥70	Complete	11	34%
2.	≤70	Not Complete	21	66%
	Total		32	100%

Source: Daily Examination 2 Results, Class X IPS 2 of Senior High School PGRI 2 Jambi City

It can be seen from the results of the daily examination scores for class X IPS 2 students there were only ten out of 32 students who achieved scores above the completeness criteria (KKM) with a percentage of 31%. In comparison, 22 students, with a percentage of 69%, had not achieved completeness. Meanwhile, in daily test 2, 11 out of 32 students scored above the completeness criteria (KKM) by 34%, and 21 students had not achieved completeness with a percentage of 66%. These results show that more than half of the population in that class had poor learning outcomes. Low creativity and student learning outcomes were due to the inappropriate learning models applied by educators. Responding to these problems, researchers

tried to find solutions to increase creativity and learning outcomes of class X IPS 2, Senior High School PGRI 2, Jambi City, through a podcast-based inquiry model.

RESEARCH METHOD

This is a class action research (CAR) carried out at Senior High School PGRI 2 Jambi City in the even semester of the 2021/2022 school year. The stages of implementation CAR consist of six cycles, each cycle consisting of four stages, namely planning, implementing actions, observing and analyzing and reflecting. The subjects of this study were students of class X IPS 2 Senior High School PGRI 2 Jambi City, totalling 32 students consisting of 22 boys and ten girls. The reason for the researchers choosing class X IPS 2 SMA PGRI 2 Jambi City to be the research subject was that the creativity and student learning outcomes were not satisfactory, so they needed special attention. Based on the research results, the minum criteria score was 70, with students who achieved a KKM score of 35% and those who did not achieve a KKM score of 65%.

This research focused on the variables studied to increase creativity and student learning outcomes using the questionnaire method and student test results. In addition, this study also looked at the relationship between creativity and student learning outcomes using the product-moment correlation as follows (Arikunto, 2016).

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\}\{n \sum Y^2 - (\sum Y)^2\}}}$$

The data collection techniques in this study consisted of several stages. The first was the observation in which the researcher acted as a teacher, a peer, and an observer during the learning activities. The second was a structured interview with a History teacher. Third, conducted a Documentation Study using photos and videos during learning activities. Fourth, made written notes about what was seen, heard, experienced, and thought in the context of data collection and data reflection in this classroom action research. These field notes ease researchers to remember events in the learning process during the research.

Moreover, the data analysis techniques used in this study included qualitative and quantitative techniques. Qualitative techniques described the implementation of the action plan, the obstacles that arise during the learning process, creativity, and student learning outcomes during learning. Quantitative techniques were used to describe learning effectiveness, including creativity and student learning outcomes, which can be seen from the average score results. The data were then calculated and written down in the form of tables and diagrams so that you can see the development or increase in creativity and student learning outcomes.

RESULTS AND DISCUSSION

The Implementation of Podcast-Based Inquiry Learning Model to Increase Creativity and Learning Outcomes of Class X of Senior High School PGRI 2 Jambi City

Inquiry-based learning is a learning activity that maximizes the ability of students to find and analyze something (objects, people, or events) in a structured, critical, logical, and analytical manner so that they can confidently draw their conclusions. Teachers commonly use teaching methods in this learning model, including discussions and assignments. Small groups of students carry out problem-solving discussions with up to five students under the supervision of a teacher, guidance and advice from the teacher. These activities are held face-to-face or during scheduled activities. Therefore, in the inquiry model, the communication model used is not one-way communication or communication as an action but multi-way communication or communication as an action.

The podcast used by the teacher when carrying out learning activities at Senior High School PGRI 2 Jambi City was a Podcast with a video format, with 8-10 minutes on each material being taught. The podcasts were distributed via the YouTube platform and listened to by students in class. Using podcast media and inquiry learning models in the classroom is new for students. Still, it increased creativity and student learning outcomes in the classroom. In conclusion, the application of podcast-based inquiry learning model had been able to increase the creativity and learning outcomes of class X IPS 2 Senior High School PGRI 2 Jambi City.

The creative thinking abilities observed during the classroom action research were assessed according to a predetermined initial grid. Assessing students' creative thinking abilities includes fluency, flexibility, originality and elaboration. The following is the score of students' creative thinking abilities in each cycle.

Table 2.
Results of Observation of Students' Creative Thinking Ability in Groups

No.	Group Name	Action I	Action II	Action III	Action IV	Action V	Action VI
1	Group 1	18	20	20	30	33	35
2	Group 2	18	19	16	30	32	35
3	Group 3	20	21	20	31	33	34
4	Group 4	18	20	19	30	31	32
5	Group 5	21	21	18	31	33	35
	Average	19	20.2	18,6	30.4	32.4	34.2

Based on the table above, it is then described in the form of a diagram with the average as below.
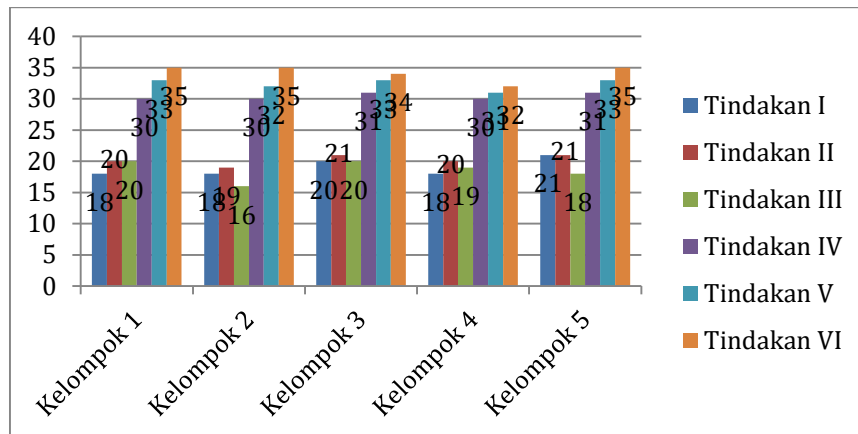

Figure 1.
Diagram of Observation Results of Students' Creative Thinking Ability in Groups

Based on the diagram, the student's creative abilities in each cycle experienced a significant increase except for the actions of cycles II-III. Groups 4 and 5 got the highest scores, with an average score of 26.5. Students' creative thinking skills experienced an excellent increase in cycle III. From the scores described above, these scores will then be averaged. The average results are as follows.
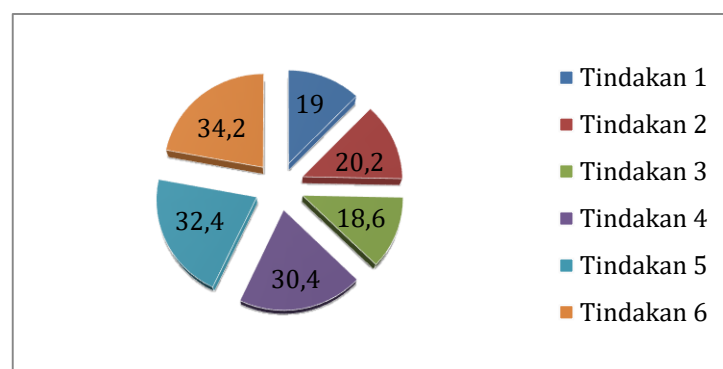

Figure 2.
Diagram of the average score of students' creativity in each cycle

Students' creative thinking abilities, which were processed during action research in class, were evaluated according to a predetermined initial grid. Assessing students' creative thinking abilities includes fluency, flexibility, originality and elaboration. The following is the score for students' creative thinking skills for each action based on a questionnaire that was filled out and processed by the researcher.

Table 3.
Student's Individual Creative Thinking Ability

No.	Actions implemented	Average Scores
1	Action I	70.5
2	Action II	74.68
3	Action III	75.38
4	Action IV	77.09
5	Action V	81.31
6	Action VI	84.26
	Total	463.217
	Average	77.20

Based on the student creativity score table above, there was always an increase in every action taken, proving that in cycles III-VI, the level of student creativity had increased very well. The scores above are described in the form of a diagram, with the average below.

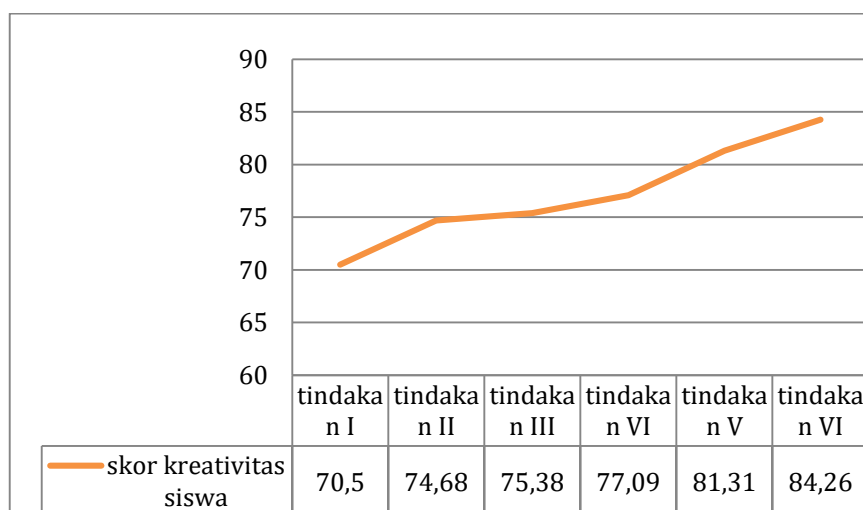|	tindakan I	tindakan II	tindakan III	tindakan VI	tindakan V	tindakan VI
skor kreativitas siswa	70,5	74,68	75,38	77,09	81,31	84,26

Figure 3.
Diagram of Student's Individual Creative Thinking Ability Score

Student learning outcomes processed during class action research were assessed based on the questions given in each action. The questions were made in the form of multiple choice with the level of difficulty adjusted to the agreement of the history subject teacher at Senior High School PGRI 2 Jambi City. The following are the results of the average student scores in each action.

Table 4.
Student Learning Outcomes in Every Action

No.	Actions implemented	Average Scores
1.	Action I	70.5
2.	Action II	67.47
3.	Action III	70
4.	Action IV	77.05
5.	Action V	78.09
6.	Action VI	83.33
	Total	446.44
	Average	74.40

Based on the table above, the overall student learning outcomes had increased. In the second action, the average student learning outcomes in the class decreased compared to the first action because the difficulty level of the questions made was higher than in the previous action. Student learning outcomes are then described in the form of diagrams with the average below.
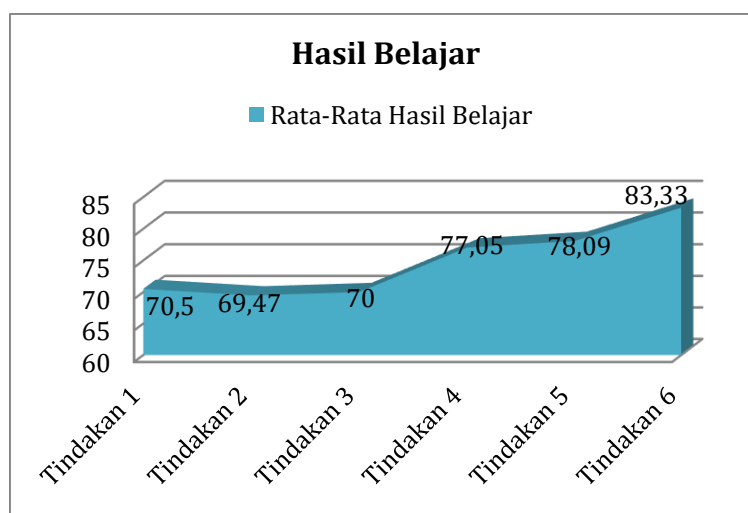

Figure 4.
Diagram of Student Learning Outcomes in Each Action

These data confirmed that applying a podcast-based inquiry learning model had proven effective in increasing the learning outcomes and creativity of class X IPS 2 Senior High School PGRI 2 Jambi City. The results of this study reinforced the results of research from Hardawati (2021), Anizar (2021), and Hadiyanti (2022), which proved that the inquiry learning model could improve student learning outcomes. This research supports research conducted by Masruroh (2017), Fuadi (2020), and Rahayu (2021), which stated that the application of the inquiry method could increase students' creativity in learning history. This research also reinforced

research conducted by Mayangsari & Tiara (2019), which stated that podcast media is considered adequate for increasing learning outcomes.

In addition, the researcher also wanted to know the correlation between student creativity and student learning outcomes when conducting classroom action research with a podcast-based inquiry learning model, then the correlation between student creativity and learning outcomes can be calculated as follows:

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\}\{n \sum Y^2 - (\sum Y)^2\}}}$$

$$r_{xy} = \frac{29.166797 - (2132)(2186)}{\sqrt{\{28.163076 - (2132)^2\}\{28.172370 - (2186)^2\}}}$$

$$r_{xy} = \frac{9764}{\sqrt{\{20704\}\{47764\}}}$$

$$r_{xy} = \frac{9764}{31446}$$

$$r_{xy} = 0,31$$

Based on the results above, if consulted with the correlation interpretation criteria, it can be seen that the variables X (creativity) and Y (learning outcomes) were positive concerning the amount obtained was 0.31. When these results were interpreted by matching the correlation index number r table according to the provisions of Sarwono (2012), namely the number 0.31 between 0.25-0.50, then the correlation between creativity and learning outcomes was included in the sufficient category. There was a relationship between the creativity variable and the learning outcome variable, although it was not in a strong category.

Obstacles and Solutions to the Application of the Podcast-Based Inquiry Learning Model to Increase Creativity and Student Learning Outcomes

A podcast-based inquiry learning model could increase creativity and student learning outcomes and positively impacted class X IPS 2 Senior High School PGRI 2 Jambi City. The application of this learning model encountered several obstacles. Based on the results of interviews conducted with a student named Anggun Rismayang, during discussions in searching for the assigned material, she needed help finding and selecting relevant information. These results were in accordance with Anugraheni's statement (2020) that students have difficulty finding alternative solutions to the problems given by the teacher.

Then, sometimes the noisy class conditions also become an obstacle for students to concentrate on understanding the content of the video podcasts they watch. In addition, based on interviews with a student named Rts Andahara, he experienced problems when there were differences of opinion among group members, which became an obstacle in reaching an agreement when formulating problems.

Based on interviews conducted with Anggun about learning activities using a podcast-based inquiry learning model, students felt that by implementing a podcast-based inquiry learning model in class, they were given broad opportunities to exchange ideas and freely express opinions. Then Rts Andahara also agreed with what was stated by Anggun. The podcast-based inquiry learning model made it easier for them to think independently and use their abilities to find and process information optimally to understand the material well.

Moreover, the researchers also interviewed History subject teachers who teach in grades X, XI, and XII Science and Social Studies at Senior High School PGRI 2 Jambi City. The interview aimed to find out the implementation of the podcast-based inquiry learning model. According to the teacher, the podcast-based inquiry learning model could improve student learning outcomes and train students' creativity in participating in learning activities in class. This can be seen from the increase in student learning outcomes based on the value report submitted by the researcher to the History teacher for each action. Furthermore, the History teacher also said students visited the library more often before participating in History learning activities. Lastly, searching for material provided by the teacher to be completed in groups also increased collaboration between students. Together, they searched for the information they needed and formulated materials by exchanging opinions.

CONCLUSION

The use of podcast-based inquiry learning models in history subjects had succeeded in increasing creativity and student learning outcomes, as evidenced by the increased learning outcomes and creativity in each cycle. The obstacle in using the podcast-based inquiry learning model was that students needed help finding sources relevant to the material they were studying, and students needed help processing the information they were learning. In addition, the media provided in schools was limited, causing difficulties for researchers in distributing learning video podcasts.

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