

Improving Student Learning Outcomes through the Use of the PQ4R Method Assisted by Powtoon Animation Video Media in Social Science Learning

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Abstract

Natural and Social Sciences (IPAS) is a course that is the result of the integration of Natural Sciences (IPA) and Social Sciences (IPS) which aims to help students understand the relationship between the natural and social environment in an integrated manner. This study aims to describe the improvement of learning outcomes of science students in grade IV of SDN 188 Barru, Barru Regency through the application of the PQ4R method assisted by Powtoon animation video media. This research is a Class Action (PTK) research conducted in Binuang Village, Balusu District, Barru Regency. The research subjects amounted to 9 students in grade IV. Data was collected through observation tests and learning outcomes using instruments in the form of observation sheets for learning implementation, observation sheets for student activities, and learning outcome tests. The results of the study showed an increase in learning implementation, student activities, and learning outcomes in each cycle. In Cycle I, the implementation of learning and student activities each reached 83% with the very good category, while the completeness of learning outcomes reached 33% with an average score of 56 (low category). After improvements were made in Cycle II, the implementation of learning and student activities increased to 97.3% with the very good category, while the completeness of learning outcomes increased to 77% with an average score of 74 (high category). Thus, the application of the PQ4R method fostered by Powtoon animation video media has been proven to improve the learning outcomes of fourth grade IPAS students of SDN 188 Barru, Barru Regency.

Keywords

Indonesian Language Learning Outcomes; Literacy Tree; Powtoon.



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INTRODUCTION

Natural and Social Sciences (IPAS) is a course that is the result of the integration of Natural Sciences (IPA) and Social Sciences (IPS) which aims to help students understand the relationship between the natural and social environment in an integrated manner. This integration is expected to be able to support the strengthening of the values of the Pancasila Student Profile so that students not only understand natural phenomena, but also are able to interact with their

social environment wisely (Edo, R., 2025). Therefore, the social studies learning process needs to be supported by learning strategies and media that are able to increase students' understanding of learning concepts and outcomes.

Learning media is one of the important components in creating effective learning. The use of media not only functions as a means of delivering material, but is also able to attract attention, increase motivation, and make it easier for students to understand concepts through the presentation of more concrete objects or illustrations (Kusumajati et al., 2022). One of the most widely used technology-based learning media innovations is Powtoon, which is an application that provides various interactive animation features so that it can reduce learning boredom and increase students' attention and focus during the learning process (DS, YN, et al., 2024).

Learning outcomes are changes in abilities obtained by students after participating in the learning process, which is usually measured through tests to determine the level of achievement of learning objectives, Sunardin (2019). Another opinion also says that learning outcomes are something that students can get from the learning process, which can be seen from test scores after learning and changes in behavior after students learn, NUR (2023).

In addition to interesting media, there is also a need for learning methods that are able to actively involve students. The PQ4R (Preview, Question, Read, Reflect, Recite, Review) method directs students to learn systematically through the activities of reviewing the material, compiling questions, reading, reflecting, reexpressing, and reviewing the material that has been learned. The integration of the PQ4R method with Powtoon's animation video media is expected to improve students' understanding of concepts, motivations, and learning outcomes because it combines active learning with interactive audiovisual media.

Based on the results of initial observations at SD Negeri 188 Barru, Barru Regency, the learning outcomes of grade IV science students are still relatively low. Of the 9 students, as many as 5 students (55.56%) have not reached graduation, while only 4 students (44.44%) have achieved graduation. The results of interviews with teachers showed that most students still had difficulty understanding conceptual material, lacked focus during learning, and tended to be passive in participating in learning activities. This condition shows the need to apply more innovative learning methods and media to improve student engagement and learning outcomes.

Based on this description, this study aims to determine the improvement of social studies learning outcomes through the application of the PQ4R (Preview, Question, Read, Reflect, Recite, Review) method assisted by Powtoon animation video media in grade IV students of SD Negeri 188 Barru, Barru Regency.

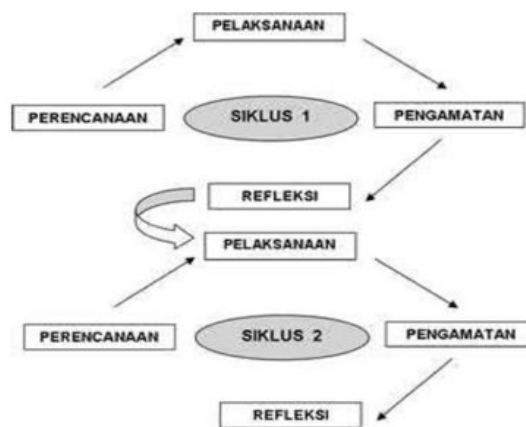
METHODS

This research is a Classroom Action Research (PTK) that aims to improve the learning process and outcomes in the classroom. According to Nurulanningsih (2023), PTK is an action research carried out to improve the quality of learning practices by focusing on the learning process in the classroom. The research was carried out at SD Negeri 188 Barru, Barru Regency,

in the even semester of the 2026/2027 school year with the research subjects of 9 grade IV students, consisting of 5 male students and 4 female students.

This study uses the Kurt Lewin model which consists of four stages, namely planning, action, observation, and reflection. The action was carried out in two cycles, each consisting of three learning meetings using the PQ4R (Preview, Question, Read, Reflect, Recite, Review) method with the help of Powtoon animation video media, as well as one learning outcome test at the end of each cycle. The results of the reflection in each cycle are used as a basis for correcting actions in the next cycle.

Figure 1. Classroom Action Research Cycle



Source: Kurt Lewin

Research data is collected through observation and testing. Observation was used to assess the implementation of student learning and activities during the implementation of the PQ4R method assisted by Powtoon animation video media, while tests were used to measure students' social studies learning outcomes. The research instruments include observation sheets for learning implementation, observation sheets for student activities, test sheets for learning outcomes in the form of essays, and documentation.

The data was analyzed using quantitative descriptive analysis. Observation data was analyzed based on the percentage of learning implementation and student activities, while test results were analyzed based on average scores and percentage of learning completeness to determine the improvement of learning outcomes in each cycle.

1. Observation data on learning implementation

The analysis of the results of observations on the implementation of learning in the learning process uses the following percentage calculation formula.

Table 1. Learning Implementation Categories

Nope.	Success Rate	Predicate
1	90-100	Very good
2	80-89	Good
3	75-79	Enough
4	50-70	Less

Source: Farida (Putra et al., 2023).

2. Analysis of Student Learning Activity Data

Student activity data was obtained from the results of observation of student activities in learning activities. Observation of student activities in learning activities is carried out using the Yes and No assessment scale. The achievement of student activities can be calculated using a formula, namely:

Table 2. Categories of Student Learning Activities

Shoes	Category
81-100	Highly Active
61-80	Active
41-60	Quite active
21-40	Less active
0-20	Very Inactive

Source: Alvi (Aifah, UN, 2024)

3. Analysis of data and student learning outcomes

The data obtained is quantitative data used to find out the extent of improvement in student learning outcomes after using the PQ4R (*Preview, Question, Read, Reflect, Recite, Review*) method based on *Powtoon* animation video media. The criteria for achieving Learning Objectives (KKTP) set in this study are 70. The data analysis techniques used include the calculation of students' final grades and the percentage of classical learning completeness as follows.

Table 3. Categories Learning Outcomes

No	Shoes	Category
1	0-44	Very low
2	45-54	Low
3	55-69	Medium
4	70-84	Height
5	85-100	Very high

Source: Ramadhani (Purnamasari et al, 2025)

Table 4. Learning Achievement Criteria

No	Value	Criteria
1	<75	Incomplete
2	≥ 75	Conclusion

Source: Sembring et al (2025)

4. Success Indicators

This research is said to be successful if $\geq 77\%$ of all students or 7 students out of 9 students have obtained a minimum score of 70 in the high category.

FINDINGS AND DISCUSSION

Findings

The results of the research were obtained through the application of the PQ4R (*Preview,*

Question, Read, Reflect, Recite, Review) method assisted by Powtoon animation video media in the learning of social studies students in grade IV students of SDN 188 Barru, Barru Regency. This class action research was carried out in two cycles, each consisting of three learning meetings and one evaluation meeting. In Cycle I, the application of the method has not shown optimal results because some students are still not actively asking questions, conveying the results of discussions, and need guidance at the reflection and material review stages. The results of this reflection are the basis for improvements in Cycle II. After improvement, students showed more active participation in each stage of the PQ4R method, were more confident in expressing opinions, and understood the material better. Increasing learning activities has an impact on increasing learning outcomes so that indicators of research success can be achieved.

1. Observation Results of the Implementation of Cycle I Learning

Table 5. Observation Results of the Implementation of Cycle I Learning

Yes	Meetings	What to do	Yes	Meetings
1	I	10	71	Good
2	II	12	86	Very good
3	III	13	92	Very good
Average			83	Very good

Source: Primary data after processing (2026)

Based on Table 5, the implementation of learning in Cycle I has increased at each meeting. Of the 14 aspects observed, as many as 10 aspects (71%) were implemented in the first meeting with the good category, increasing to 12 aspects (86%) in the second meeting and 13 aspects (92%) in the third meeting, both of which were categorized as very good. Overall, the average learning implementation reached 83% with the category of excellent, so that it met the success indicators. However, there are still some aspects of learning that have not been implemented optimally. At the fourth meeting, students took the test as an evaluation of learning outcomes.

2. Results of Observation of Student Activities in Cycle I I

Data on observation of student activities during the learning process at the first meeting consisted of 14 aspects, the second meeting consisted of 14 aspects, and the third meeting consisted of 14 aspects, using the PQ4R method assisted by powtoon animation video media in the following natural science learning table.

Table 6. Results of observation of student activities in cycle I I

Yes	Meetings	Quantity Aspects	Presentase	Category
1	I	10	71	Active
2	II	12	86	Very active
3	III	13	92	Very active
Average			83	Highly Active

Source: Primary data after processing (2026).

Based on Table 6, student activities in Cycle I increased at each meeting. The percentage of student activity increased from 71% in the active category at the first meeting to 86% at the second meeting and 92% at the third meeting, both of which were very active in that category. Overall, the average student activity reached 83% in the very active category, so it has met the success indicators. However, there are still some aspects of the activity that are not optimal because some students are still adapting to the stages of the PQ4R method with the help of Powtoon animation video media.

3. Student Learning Outcomes Cycle I

Table 7. Data on the score results of each test question in the first cycle

No	Student Name	KKTP	Test Scores	Category
1	MF	70	36	Incomplete
2	S	70	40	Incomplete
3	BY	70	44	Incomplete
4	ZW	70	28	Incomplete
5	ON	70	72	Tuntas
6	STN	70	48	Incomplete
7	I	70	56	Incomplete
8	WHY	70	76	Tuntas
9	AR	70	72	Tuntas

Source: Primary Data After Processing 2026

Based on table 7 shows that there were 9 complete students who took the first cycle test, after processing the work of all students among the 9 students there were 3 students who achieved perfect scores with a high category of 72-76, and there were 2 students who reached the low category of 48-56, and 4 students in the very low category of 28-44. So overall there are 3 students who achieved completeness with a percentage of 33% and 6 students who did not achieve completeness with a percentage of 66%. From these results, it can be said that the first cycle still needs improvement to achieve the set success standard, which is 70% of KKTP outstanding students.

4. Observation Results of the Implementation of Cycle II Learning

Data from observation of the implementation of learning using the PQ4R method assisted by Powtoon animation video media in social studies learning class IV are presented in Table 11. The table shows the level of implementation of each learning stage at each meeting based on 14 aspects of assessment observed in accordance with the syntax of the PQ4R method.

Table 8. Results of observation of the implementation of learning cycle II

No	Meeting held	What to do	Number of aspects	Peresentase	Category
1	I	13	14	92	Very good
2	II	14	14	100	Very good

3	III	14	14	100	Very good
Average				97,3	Very good

Source: Primary data after processing (2026)

Based on Table 8, the implementation of learning in Cycle II showed an increase compared to Cycle I. In the first meeting, the implementation of learning reached 92% with the very good category, then increased to 100% in the second meeting and remained at 100% in the third meeting with the very good category. The improvements occurred due to improvements based on the results of Cycle I reflections, such as more effective time management, clearer instructions at each stage of the PQ4R method, improved guidance during discussions, and more optimal use of Powtoon animated video media. Overall, the average learning implementation in Cycle II reached 97.3%, which shows that the implementation of learning has been very optimal and meets the success indicators.

5. Results of Observation of Student Activities in Cycle II

The observation data of student activities during the learning process at the first meeting consisted of 14 aspects, the second meeting 14 aspects, and the third meeting 14 aspects, using the PQ4R method assisted by powtoon animation video media in IPAS learning in the following table:

Table 9. Results of observation of student activities in cycle II

No	Meetings Applied	Applied	Number of aspects	Peresent ase	Category
1	I	13	14	92	Highly Active
2	II	14	14	100	Highly Active
3	III	14	14	100	Highly Active
Average				97,3	Highly Active

Source: Primary data after processing (2026)

Based on table 9, the results of observations of student activities carried out by observers during cycle II are displayed. At the first meeting, the student participation rate was very high, reaching 92% which was categorized as very active. Then at the second meeting, the percentage of student participation increased rapidly to 100% which was categorized as very active. Likewise, in the third meeting, it also showed that student participation increased rapidly to reach 100% which was categorized as very active.

Overall, the average student activity during cycle II was recorded at 97.3% in the very active category in accordance with the success standard. It can be concluded that student participation has increased more than in the previous cycle and has achieved success in accordance with the set success standards.

6. Student Learning Outcomes Cycle II

The administration of the test in cycle II is an effort to improve the inability of the test

results of the previous cycle and this test is given after three meetings that have been completed and continued at the fourth meeting, namely the administration of the learning outcome test. The second cycle test sheet consists of 5 essay questions given to each student. The test results of 9 grade IV students have been processed in table 10 as follows.

Table 10. Assessment of students' Indonesian language learning outcomes in cycle II

No	Student Name	KKTP	Test Scores	Category
1	MF	70	75	Tuntas
2	S	70	76	Tuntas
3	BY	70	84	Tuntas
4	ZW	70	20	Incomplete
5	ON	70	84	Tuntas
6	STN	70	68	Incomplete
7	I	70	84	Tuntas
8	WHY	70	92	Tuntas
9	AR	70	85	Conclusion

Source: Primary data after processing (2026)

Based on the table in table 13 shows that there were 9 complete students who took the second cycle test, after processing the results of the work, all students were escorted to the 9 students there were 2 students who achieved perfect scores with a very high category of 85-92, and there were 5 students who reached the high category of 75-84 and there was 1 student in the very low category of 20, and 1 middle category student, which is 68 years old. So overall there are 7 students who achieved completeness with a percentage of 77% and 2 students who did not achieve completeness with a percentage of 22%. From these results, it can be said that cycle II has succeeded in making improvements from the previous cycle and has reached the set success standard, namely 70% of students have successfully achieved KKTP.

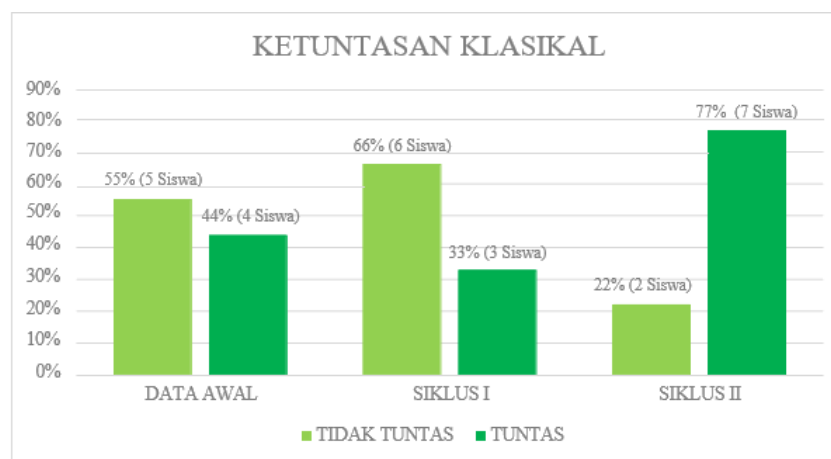


Figure 1. Classic Fitting Graphic

Discussion

This research is a Classroom Action Research (PTK) which is carried out in two cycles to improve the learning outcomes of science students in grade IV of SD Negeri 188 Barru through the application of the PQ4R (Preview, Question, Read, Reflect, Recite, Review) method assisted by Powtoon animation video media. In the initial condition, as many as 55% of students have not achieved the KKTP, so improvements are needed to improve the learning process.

The implementation of Cycle I shows that the application of the PQ4R method is not optimal. Some stages of learning have not been implemented optimally so that student involvement is still low and the completeness of learning has only reached 33%. The results of the reflection in Cycle I were then used as the basis for improvement in Cycle II, including by applying the PQ4R syntax more systematically, optimizing the use of Powtoon animation video media, and improving guidance to students during learning.

This improvement has an impact on improving the implementation of learning, student activities, and learning outcomes in Cycle II. Learning completeness increased to 77%, exceeding the established success indicators (>70%). This improvement shows that the PQ4R method assisted by Powtoon's animation video media is able to create more active, engaging, and effective learning. This finding is in line with the opinion of Agustin (in Sumarti, 2022) who stated that the PQ4R method helps students understand and remember reading materials and encourages activeness through systematic learning stages.

The results of this study are also supported by research by Suyanti et al. (2021) which states that the use of Powtoon media can increase the learning motivation of elementary school students because it presents material in the form of interesting animated videos. In addition, research by Fika, N. A (2022) shows that the use of animated video media is effective in improving science learning outcomes. Thus, the application of the PQ4R method assisted by Powtoon animation video media has proven to be effective in improving social studies learning outcomes of students.

This study has limitations because it only involves 9 students, is carried out for two cycles, and focuses on grade IV science material in one school. Therefore, further research is recommended to involve a larger number of students, to be conducted in different schools with longer research times, as well as to test the application of the PQ4R method assisted by Powtoon animated video media on other subjects or subjects.

CONCLUSION

Based on the results of class action research conducted in two cycles, it can be concluded that the application of the PQ4R (Preview, Question, Read, Reflect, Recite, Review) method assisted by Powtoon animation video media was able to improve the learning outcomes of science students in grade IV of SD Negeri 188 Barru, Barru Regency. The increase can be seen from the increase in student learning outcomes from the initial condition to Cycle II, with learning completeness reaching 77% (7 out of 9 students) and an average score of 74, so that it has met the indicators of research success. Thus, the PQ4R method assisted by Powtoon

animation video media is effectively used to improve social studies learning outcomes of students.

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