

## Development of Ludo Game Learning Media for Social Studies Subjects in Grade IV of Napallicin Elementary School

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### ARTICLE INFO

#### Keywords:

IPS, Learning Media, Ludo Game.

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#### Article history:

Received 2025-02-20

Revised 2025-03-16

Accepted 2025-05-21

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### ABSTRACT

The purpose of this study was to develop a ludo game learning media in social studies subjects in grade IV of Napallicin State Elementary School. Testing the validity. Practicality, and effectiveness of the ludo game learning media in social studies subjects in grade IV of Napallicin State Elementary School. The method used in this study is the ADDIE Development method. This development research produces a valid, practical, and effective ludo game product, namely the validity of the learning media that has been developed is included in the "Valid" category with the Aiken'V coefficient determined based on the results of the ludo game media assessment by the three validators, namely language experts 0.92, material experts 0.95, and media experts 0.83. The practicality of the ludo game media shows an Aiken'V coefficient of 89% which is determined based on the results of the calculation of the practicality questionnaire of the responses given by students to the ludo game media. So that the ludo game in social studies subjects in grade IV of Napallicin State Elementary School is included in the "Very Practical" category. Ludo game media in social studies subjects in grade IV of SD Negeri Napallicin has an effect on student learning outcomes where only 2 students did not complete and 18 students were deferred with an average of 84.3% in the category "Very Effective". This media can help students and teachers in classroom learning, especially in the material of Norms in the customs of my region.

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## 1. INTRODUCTION

Education is one of the aspects that must be of special concern to both the government and all levels of society, because the progress of a nation can be seen in the quality of education (Hergüner, Yaman, Sari, Yaman, & Dönmez, 2021). Effective learning is something that can help students to learn easily and be understood according to the purpose of the defense. In the modern world of education

faced by the Indonesian education world, the latest innovations are urgently needed in education that can provide benefits for teachers, students and learning (Syamsul, Basyaruddin, & Yuhdi, 2020).

In the learning process, learning media is needed because learning media is one of the tools to help the teaching and learning process so that learning activities can be effective to achieve goals. One of the main functions of learning media is to encourage students to focus their attention, help understand the learning material, arouse student motivation, activate their responses, influence the atmosphere, conditions and learning spaces that are arranged and created by the teacher (Mahendra, 2020). Learning media is a learning environment that provides knowledge and information to students so that the teaching and learning process takes place effectively and efficiently. The use of learning tools can help educators explain the material in real life so that students can understand it easily (O'Connor, Ludgate, Le, Le, & Huynh, 2023).

Based on the results of initial observations conducted at SD Negeri Napallicin, North Musi Rawas Regency from August 30, 2024 to September 06, 2024 with Class Teacher, Mr. Syaiful Alamsyah, S.Pd, it is known that the number of students consists of 20 students. The results of the observation are known that the value of KKTP IPAS Class IV is 75. The researcher also observed the media used, one of which was the media using video and drawing/photo tools and found that the Ludo game media had never been applied and used at SD Negeri Napallicin. When the teacher delivers and explains the material, there are still many students who do not pay attention to what is conveyed by the teacher, due to the lack of media used during learning (Eyob Kenta, 2019).

The learning results of various existing subjects, IPAS lessons always show low results when compared to other subjects. It is considered difficult, especially in the material of norms in the customs of my region. Because Napallicin State Elementary School is still implementing learning that still uses previous learning and very limited media. It is known that students in grade IV prefer to learn using game media and colors because the presentation feels more real and easy to understand. Ludo games were chosen because they are one of the traditional games that are entertaining, fun, interesting, and easy for students to play (Sangsawang, 2015).

This research aims to develop learning media in the form of ludo games in the subject of Social Sciences (IPS) in grade IV students of SD Negeri Napallicin. This media was developed to overcome the low interest and learning outcomes of students in norm material in regional customs. With the development of game-based learning media, it is hoped that it can increase students' attention, motivation, and understanding of the material taught. The benefit of this research is to provide an alternative, interesting, valid, practical, and effective learning media for teachers and students, so that the learning process becomes more interactive and fun.

## 2. METHODS

The type of research used in this study is Research and Development (R&D) with the ADDIE development model, which consists of five stages, namely Analysis, Design, Development, Implementation, and Evaluation. This model was chosen because it is suitable for producing educational products in the form of learning media that can be tested for validity, practicality, and effectiveness. The subjects in this study are 20 grade IV students of SD Negeri Napallicin, while the object of the research is the learning media of the developed ludo game.

The instruments used in this study consisted of validation questionnaires, practicality questionnaires, and learning evaluation questions. Validation is carried out by three experts, namely linguists, media experts, and material experts, to measure the level of validity of the developed media. To measure the practicality of the media, a response questionnaire was used given to teachers and

students. Meanwhile, to find out the effectiveness of the media, an evaluation was carried out through a test of student learning outcomes after using ludo game media in learning. The data obtained was analyzed quantitatively to determine the categories of validity, practicality, and effectiveness of the developed learning media.

### 3. FINDINGS AND DISCUSSION

Based on the overall results of the analysis of the validity assessment of Ludo game media provided by the three validators, namely linguists, media experts, and material experts, it shows that Ludo game media obtained a high score and has been adjusted to the Aiken's V table, so it is included in the **valid category** for use in the learning process. The recapitulation of the results of the validity assessment can be seen in the following Table 1:

**Table 1 Data Results of the validity of ludo game media**

No	Validator	Score Obtained			
		language	media	material	
1	Validator Material.	0,96			tall
2	Validator Media		0,83		tall
3	Material Validator			0,95	tall
	sum	0,96	0,83	0,95	
	Average		0.91		tall

From table 1 above, it can be concluded that the results of the experts get an average value of 0.91 which is a high level of validity, to get these results the researcher goes through three stages, namely by testing the product developed to 3 experts, namely: linguists, media experts and material experts

**Table 2 Recapitulation of the results of the practicality analysis**

No	Valuation	Sum	Number of statement items	Percentage	criterion
1	Guru	1	9	91%	Very Practical
2	Student (One To One)	6	36	94%	Very Practical
3	Student (Small Group)	12	42	83%	Very Practical
	Sum	19	87	89,33%	Very Practical

Based on the results of the practicality analysis, it shows that the media of practical ludo games is used in the learning process with an average score of 89.33% which is included in the criteria for the level of practicality with an average score interval range of 81%-100% classification of very practical.

Meanwhile, the results of the analysis of the average score *Gain* shows a significant increase. The average score of the students' pretest before using the media is 43,25%, which shows the student's initial understanding of the material. After the application of Ludo game media, students were more active, enthusiastic, and the average posttest score increased to 84,5%. The N-Gain value obtained is 0,73, included in the high category (N-Gain criterion  $\geq 0.7$ ). This shows that the use of Ludo game media in

social studies learning on norm materials in regional customs is effective in improving student learning outcomes. Why this research is said to be effective is because the development of ludo game media has succeeded in improving the learning process, which from only obtaining an average of 43.25 to 84% produces an impact that is in accordance with the researchers' expectations.

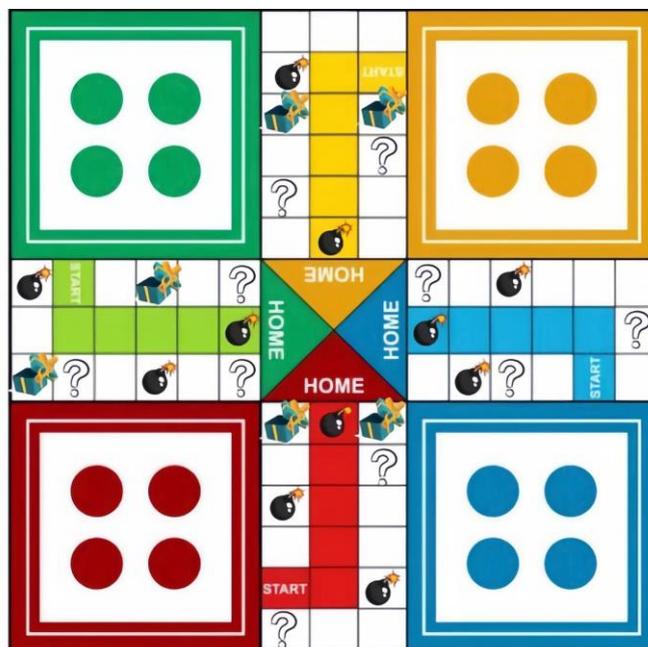


Figure 1. Ludo Board

The results of this study show that the Ludo game media developed is valid, practical, and effective for use in social studies learning. This research is in line with the findings of (Nabilah Mokhtar, Lim Zhi Xuan, Lokman, & Noor Hayati Che Mat, 2023) who stated that interactive learning media can increase student motivation and understanding. In addition, Jihan (2019) also emphasized that traditional games such as Ludo are fun and able to create a more lively and meaningful learning atmosphere (Suri, Syahputra, Amany, & Djafar, 2023).

Theoretically, these results are supported by constructivist learning theory (Piaget) which states that children learn best when they are actively involved in the learning process through real experiences and meaningful play activities. Ludo as a learning medium serves as a visual and interactive tool that allows students to build their own understanding of the material, especially those that are abstract such as norms in customs (Tafani & Kamaludin, 2023).

Furthermore, this research is also consistent with the results of research from (Almeida & Simoes, 2019), who developed a board-based educational game media and found that the media was able to significantly improve learning outcomes. Similar results were found by (Akhter, Mahr, & Imtiaz, 2021) in the development of social studies interactive quiz media which showed an increase in learning outcomes and student involvement. Thus, this study reinforces previous theories and findings that educational game media such as Ludo is very useful in increasing the effectiveness of learning in elementary schools, especially in socio-cultural materials that are abstract and require a fun and contextual approach (Bukit, 2022).

The results of this study show that the Ludo game media developed is proven to be valid, practical, and effective for use in class IV social studies learning, especially in *the material Norma in the Regional Customs*. The validity of the media was shown through an average Aiken's V score of 0.91 from three experts, namely linguists (0.96), media experts (0.83), and subject matter experts (0.95), all of whom were in the "high" category. The practicality of the media is shown by the results of the questionnaire

given to teachers and students, with an average score of 89.33%, which is also categorized as "very practical". The effectiveness of the media was obtained from the results of the pretest and posttest which showed a significant increase, from an average of 43.25% to 84.5%, with an N-Gain value of 0.73 (high category). These findings reinforce the notion that game-based media has a positive influence on student engagement in the learning process (Indah Sari, Anni Holila Pulungan, & Rahmad Husein, 2020).

This finding is in line with research conducted by (Faisal & Kisman, 2020) explained that students tend to be more interested and motivated when learning is packaged in the form of games because it feels more fun and not boring. This was evident in this study, where after Ludo media was applied, students became more active, directly involved in learning, and showed a significant improvement in learning outcomes.

This research also strengthens the results of (Ayua et al., 2023), who affirm that the use of interactive learning media can create a more enjoyable and meaningful learning experience, as well as increase students' absorption of subject matter. In the context of social studies learning that is often considered boring by students because it is theoretical and abstract, game media such as Ludo can be a concrete solution that facilitates students' understanding of complex social concepts through simulation and direct interaction (Oberoi, Patel, & Haon, 2017).

From a theoretical perspective, this research refers to the constructivist learning theory put forward by Piaget and Vygotsky. According to Piaget, children build their own knowledge through active interaction with their surroundings (Sulaiman, Mahomed, Rahman, & Hassan, 2022). In this case, Ludo game media provides a space for students to experience active learning, through a fun and collaborative play process. Vygotsky adds that social interaction is essential in learning, and that learning that occurs through group work and discussion (as in the game Ludo) can encourage higher cognitive development due to the *scaffolding* of peers or teachers (Matriano, 2020).

In addition, the findings of this study are also in line with the results of a study by (Chen, Shih, & Law, 2020), who developed a board-based educational game media for science lessons and found that students showed significant improvement in learning outcomes and interest in learning. They concluded that the element of competition in the game can increase students' attention to the material being taught. Likewise, (Wang & Dostál, 2018) research, which used interactive quizzes in social studies learning and found a significant improvement in student learning outcomes after interactive media interventions were given.

By juxtaposing the results of this research with previous research and analyzing it using modern learning theory, it can be concluded that Ludo's game media is an innovation that is not only interesting, but also pedagogically relevant. This media provides a meaningful learning experience, supports the achievement of learning objectives, and is in accordance with the characteristics of elementary school students who are still in the concrete operational stage, where they learn more effectively through direct, visual, and interactive activities.

## CONCLUSION

Based on the results of the research and data analysis that has been carried out, it can be concluded that the development of Ludo game learning media in the social studies subject of grade IV of SD Negeri Napallicin succeeded in answering the initial anxiety of the researcher, namely the low interest and learning outcomes of students in the material Norma in the Customs of My Region. This media proved to be valid, with an average score of Aiken's V of 0.91 which was categorized as high based on the assessment of three experts (language, media, and material). This media was also declared practical, with an average practicality of 89.33% based on the results of teacher and student questionnaires, and

effective, with an increase in learning outcomes from a pretest score of 43.25% to 84.5% in the posttest, as well as an N-Gain value of 0.73 which was in the high category.

Thus, Ludo game media is able to increase students' activeness, motivation, and understanding in the social studies learning process. This media can be used as an innovative alternative in the delivery of socio-cultural material that was previously difficult for students to understand with conventional methods. This research has several limitations. First, the media trial was only carried out in one school with a limited number of subjects, namely 20 grade IV students, so the generalization of results is still limited. Second, the Ludo game media developed is only focused on one subject matter, namely Norms in My Regional Customs, so its effectiveness for other social studies materials is not yet known. Third, the aspects of the duration of learning time and classroom management during the use of media have not been analyzed in depth. For further research, it is recommended that the media be tested on a wider scale by involving more schools and a larger number of students, so that the results of the research can be generalized. In addition, the development of media is also expanded to other social studies materials so that the use of Ludo media becomes more comprehensive in basic social studies learning.

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