Development of Social Studies Learning Through Role Playing Gamification Assisted by Puppet Media to Increase Collaborative Students of Class 7G UM Laboratory Junior High School

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Abstract: This article proposes an innovative approach by combining gamification, role-playing, and puppet media to increase student engagement in group discussions in social studies learning. The Design Thinking method used shows a systematic framework for designing and developing effective learning media. However, this article could have made clearer the challenges faced during implementation and how to overcome them. Although the pilot test results showed significant improvement, the article could have further analyzed the impact of this method on students' understanding of the material. Overall, this article makes a good contribution to the development of learning strategies that are interactive and relevant to the needs of today's students.

Introduction

Learning Social Studies (IPS) at the Junior High School (SMP) level often faces challenges, namely low enthusiasm for learning and minimal involvement of students in the process of group work discussions during the process of learning activities. In addition, social studies education in Indonesia has an important role in shaping students' understanding of society, culture, and the surrounding environment. However, in practice, many students have difficulty in understanding the material taught. Data from the Ministry of Education and Culture shows that the level of student understanding of social studies subjects is still relatively low, with the average national exam score below the expected standard (Kemdikbud, 2020). This suggests the need for a new approach to social studies learning to improve student understanding and engagement.

Based on the results of previous research, learners tend to be passive in group discussions, lack initiative and activeness to participate in group discussions, and have difficulty in connecting abstract concepts of economic activities with real life (Sari & Widodo, 2022). According to Vygotsky's theory of constructivism, effective learning should involve active interaction between learners and their social environment. However, in practice, after implementing it, there are still problems, one of which is the learning model

that is less interactive, which hinders the optimal involvement of students (Rahmawati et al., 2021). Therefore, innovation is needed in learning strategies that can increase learning enthusiasm and active participation of learners in the learning process.

One promising approach is the use of gamification methods, which integrate game elements in the learning process. Gamification has been proven to be effective in increasing student motivation and engagement, as expressed by Deterding et al. (2011). gamification can increase student participation in learning activities. By adopting game elements, students not only learn passively but also actively participate in the learning process, which can increase collaboration among them.

In addition, the use of puppet media as a learning tool can also have a positive impact. Wayang, as one of Indonesia's traditional art forms, has high cultural value and can be used to convey various information and lessons. According to research by Widyastuti (2019), the use of puppets in learning can increase student interest and make the subject matter more interesting. By combining puppet media and role playing method in social studies learning, it is expected that students can better understand the concepts taught and improve their collaborative skills.

That is, learning media functions as a learning tool which is one of the components in the learning process that must be included, planned and organized by the teacher in learning activities (Salamah, 2020). In this study, researchers used gamification as a tool in learning. Gamification has been shown to increase learners' engagement by integrating game elements such as point systems, challenges, and interactive scenarios in the learning process (Hamzah & Suryadi, 2023). Through this approach, learners will be given a role in an economic ecosystem or a chain of economic activity activities, starting from producers, distributors, and consumers, so that learners can understand economic concepts more contextually. By actively involving learners in role-based scenarios, they not only learn cognitively but also affectively and socially, in accordance with the principles of experiential learning.

Several previous studies have examined the effectiveness of gamification in education. A study conducted by Pratama and Lestari (2022) showed that the application of gamification in learning can increase learner engagement and motivation by up to 40%. In addition, research by Wijaya et al. (2023) found that challenge-based gamification can improve the understanding of economic concepts through hands-on experience. However, research that specifically examines the application of role-based gamification in social studies learning at the junior high school level is still very limited. The majority of studies focus more on the application of gamification in science and math subjects.

A study conducted by Hamari et al. (2014) found that gamification can increase student motivation and engagement by 50%. By implementing role-based gamification in social studies learning, it is expected that students will not only understand the concepts taught but also be able to apply them in a broader context. In addition, in today's digital era, students are very familiar with technology and digital games. According to a report from We Are Social (2021), the average time spent by internet users in Indonesia to play games is about 3.5 hours per day. This shows that students have a high interest in games, and if these elements are integrated into learning, it can create a more interesting and fun learning experience.

Although gamification has been widely applied in various fields of education, research that examines the integration of role-based gamification in social studies learning with the help of puppets as learning tools is still rare. Most studies only highlight the use of points and rewards without exploring how the roles learners play can enhance their

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conceptual understanding of cultural diversity based on geographical factors. In addition, not many studies have evaluated how this method can impact on individual engagement in group work, which is a major challenge in social studies learning.

This research is important because if role-based gamification is not implemented, then less interactive learning methods will continue to dominate, causing low enthusiasm and engagement of learners in social studies learning. Without innovation in learning strategies, learners will continue to experience difficulties in understanding cultural diversity based on geographical factors in real terms, which ultimately has an impact on the low understanding and application of economics in everyday life. Therefore, this research seeks to fill the gap in gamification studies by exploring the effectiveness of role-based gamification with the help of puppets in increasing students' enthusiasm for learning and participation in social studies learning at the junior high school level.

Research by Prabowo (2021) shows that students who engage in interactive learning have a higher level of motivation compared to those who follow traditional learning. This suggests that more innovative and engaging approaches, such as role-based gamification, are needed to improve student engagement in social studies learning.

Research Method

The research method used in this research is the Design Thinking method. Design Thinking is a design methodology to solve problems by understanding human needs. There are five stages in Design Thinking, namely Empathize, Define, Ideate, Prototype and Test (Putri, et al, 2024: 2). This research was conducted at SMP Laboratorium UM which is located on Jalan Simpang Bogor No. T-7, Sumbersari, Lowokwaru District, Malang City, East Java in February 2025. The research subjects were class 7G in the 2024/2025 academic year, totaling 30 students. The research instruments used are observation sheets, interview sheets, and diagnostic assessment sheets used in the empathy phase to find out the learning needs of learners. As well as a practicality and effectiveness questionnaire filled in by students and social studies teaching teachers after learning activities, the aim is to find out the practicality and effectiveness of the media used in the learning process activities.

1. Emphatize

   The emphatize stage in Design Thinking is carried out to capture the problems that actually occur in the research object (Indahsari & Sukoco, 2020). This stage also invites researchers to see the problems of students in the class to be studied. In this study, data collection at the emphatize stage was carried out using observation and interview methods. Observations were conducted in the classroom during learning activities to observe students. interviews were conducted to extract information from students related to learning experiences in group discussions.

   The problem raised in this study is that class 7G students at SMP Laborotorium UM, who have a fairly high interest in learning by group / collaboration. However, in terms of implementing group work (collaboration) there is still a lack of enthusiasm for learning and participation of students together between group members. This study aims to design a prototype of OVJ puppet-based gamification role playing learning media and apply it in social studies learning activities in order to help increase the enthusiasm of students to play an active role and participate in group work.

2. Define

   The define stage is carried out after obtaining data from the previous stage, namely the emptatize stage (Sari et al., 2020). At this stage, researchers held discussions with

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research assistants to find the needs of learning activities in increasing students' enthusiasm in actively working with groups.

3. Ideate
   After brainstorming at the define stage, continue to look for needs in learning activities to increase the enthusiasm of students' learning to increase in group work. At the ideate stage, in-depth detail is carried out by paying attention to the learning methods used in the process of social studies learning activities for class 7G at UM Laboratory Junior High School.

4. Prototype
   This process is carried out to develop a learning model using gamification role playing with the help of OVJ puppet media. Create interesting puppet characteristics so that learning is more fun.

5. Test
   This is the stage for conducting user trials, where users will provide input based on their experience, then the input provided by users will be reviewed and improved so that it can be even better.

Result and Discussion

The results obtained based on the Design Thinking method applied are a series of systematic planning processes that aim to formulate solutions to overcome the main problem in this study, namely the low level of student participation in collaborative group work activities in social studies learning. The design is made systematically and gradually starting from the emphtasize stage by conducting observations, interviews and diagnostic tests to the target subjects. Data from observations, interviews and diagnostic tests are used as a source of information at the define stage so that it is known what the target needs are prioritized. Furthermore, entering the ideate stage, several solutions are formulated and then selected which ones are the best ideas and can be implemented. After designing the idea carefully, the prototype stage is continued, namely the making of product samples to be made and then tested at the test stage.

1. Emphatize
   The empathize stage is carried out by observation and interview methods (distributing questionnaires through google form) during the learning process and after learning activities. Research observations were carried out on Monday, February 03, 2025 at 11:25-13:30 WIB. When the observation activities are dilakauan when ittu pamong teacher is doing social studies learning activities with the material of Economic Activities, using a problem-based learning model with cocoperative learning methods to improve students' critical thinking skills. During class discussion activities only a few students who have enthusiasm in working on group assignments. There are even some who play alone, play with their friends, disturb their friends who are learning. When group work activities took place, only one and two groups worked on the task and the others were looking for their own activities and did not look active in group discussion activities. Interviews were conducted with 27 students in class 7G of UM Laboratory Junior High School as resource persons. One of the resource person profiles can be seen in Figure 1.

Figure 1: Observation documentation in social studies learning activities

Figure 2: Interview Documentation

Table 1 Results of Interview Activities

No.	Interview Data
1.	When there are discussion activities in class, I prefer to listen to my friends without talking too much.
2.	My opinion in a discussion is challenged by another friend, I will listen to other opinions and try to understand their point of view.
3.	When there is a group assignment, I feel normal depending on the group members.
4.	In a group, I prefer to play the role of a helpful member according to my ability.
5.	If there is a group member who is not actively working, I will invite him to work together and help if necessary.
6.	If asked to do a presentation in front of the class, I am quite confident, but still feel a little nervous.
7.	I think presentations are important because they can train your confidence and public speaking skills.

In this study, the sources chosen were all students of class 7G of UM Laboratory Junior High School. The sources consist of male and female students. The results of interviews related to enthusiasm for learning and participation in discussion (collaboration) can be seen in the following table:

Table 2 Interview results related to learning enthusiasm and participation in discussion (collaboration)

Results	Questions related to enthusiasm for learning and participation in discussions
33,3%	Actively speak up and express my opinion
25,9%	Participate if there is an opportunity but not too dominant
37%	Listening to friends without talking too much
0,3%	I don't really like discussions, I'm more comfortable learning by myself.

This stage is carried out based on the problems found in class 7G SMP Laboratorium UM related to the low enthusiasm for learning and participation of students in discussing (collaboration) during the social studies learning process activities. So that in group work is not optimal, only a few learners work on group assignments. Meanwhile, other group members only play alone, admire their friends, chat alone with group members, because they do not have enthusiasm for learning and participation in completing work with the group (collaborative).

2. Define

    At the define stage, researchers narrowed down the dominant needs needed by students. From the results obtained at the empathize stage, the researchers focused on the needs of students related to learning models and methods that accommodate to increase students' learning enthusiasm in conducting group discussions.

3. Ideate

    At the ideate stage, the ideas are more detailed, which creates a learning method that can facilitate and also make an increase in enthusiasm in collaborative groups. Creating a learning method with gamification role playing with the help of puppets (OVJ), allows learners to play an active role in the group. Each learner will have their own responsibilities within the group. After the discussion, everyone will come forward to play a role with the help of puppets. The other groups as assessors of each group's performance, so that at the end of the performance the best performer will be found. The reason for using role-playing gamification is so that students can play an active collaborative role in groups in accordance with 21st century learning competencies.

4. Prototype

    Prototype development as explained by Dam & Siang (2021) is an integral part of Design Thinking and user-centered design, because prototypes allow us to test ideas and improve them in a short time. The process flow using gamification role playing with the help of puppets can be seen in Figure 2 as follows:
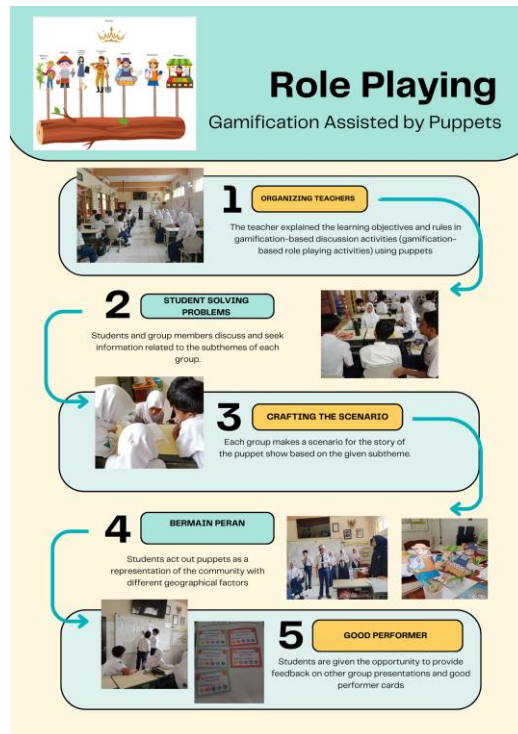
Figure 3: Puppet-assisted Gamification Role Playing Prototype (OVJ)

5. Test

    At this test stage, the researchers tested the finished product at the previous stage, namely Role Playing Gamification assisted by puppets (OVJ), precisely on Monday, February 24, 2025. At 10:45 - 12:05 WIB. Researchers conducted trials on users, namely 7G class students of UM Laboratory Junior High School in social studies learning activities. After the product test is carried out, the user can provide input precisely during the reflection activity of learning activities by using a questionnaire related to his experience in participating in social studies learning activities using the product that has been designed, this input by the user will be used by researchers for review and product improvement material to produce a better product. The following are the results of product trials by users

Figure 4: Documentation of product application to class 7G users of UM Laboratory Junior High School

After the product is tested or tested based on the results of questionnaire data that students in class 7G SMP Laboratorium UM experience an increase in active enthusiasm in group work (collaborative). All students have full awareness to participate in learning, especially in group discussion tasks. All students play their respective roles according to the scenario they have made fun. They are very excited in playing the role to get the best performance points. This is supported by the learning outcomes of learners who have improved based on the results of the initial competency diagnostic test and the results of the formative assessment at the end of learning.

Graph 1 Evaluation Questionnaire Results of Social Studies Learning with Gamification Role Playing
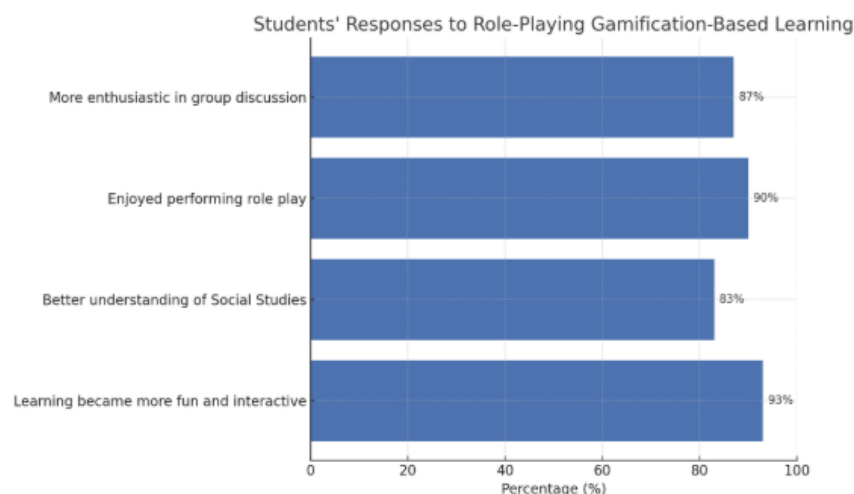
During the discussion activities, there were no learners who were idle, playing alone, jailing their friends, because all learners looked very active and had attention and focus on friends who appeared in front to act out the puppets. The results showed that learning using Role Playing Gamification assisted by puppets succeeded in increasing students' enthusiasm and involvement in group work. This fact is supported by questionnaire data which shows that more than 85% of students feel more enthusiastic, happy, and motivated in discussion activities and understand social studies material more contextually. This finding is in line with Vygotsky's social constructivism theory, which emphasizes that knowledge is built through social interaction. In this case, role-playing activities provide a forum for meaningful

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interaction between learners in the learning context, strengthening the process of knowledge construction through collaboration and communication.

In addition, Gamification role playing as a learning strategy that incorporates game elements such as points, challenges and rewards has been proven effective in increasing learning motivation (Hamzah & Suryadi, 2023). These elements are adapted in discussion activities and puppet presentations, so that students are encouraged to perform optimally and be actively involved. From the perspective of 21st century education, collaborative skills, communication and creativity are very important to develop. This learning model allows learners not only to understand the material cognitively, but also to practice these skills through teamwork and performance scenario development. The improvement in learning outcomes reflected in the comparison of initial and final assessments also shows that this approach is effective in improving the understanding of social studies concepts, as emphasized by Creswell (2022) that contextual and experience-based approaches will be more meaningful to students.

Conclusion

Increase learners' enthusiasm in playing an active role in group work activities (collaboration), such as having an opinion in the group, actively discussing and helping to complete group assignments. We recommend that in learning activities using media and approaches that suit the needs of learners. By creating learning methods that facilitate students in learning process activities. One of the things that can facilitate in increasing enthusiasm for learning in group work (collaboration) is by using gamification role playing with puppets. With the application of this learning method, it can increase the enthusiasm of students in working together in groups (collaboration). All group members are active in playing their roles in a group. Mutual enthusiasm to express opinions to solve problems. As well as in the preparation of the puppet story scenario script, students are very enthusiastic.

Acknowledgments

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