

Educative Game-Based Edutainment Model Design in Social Studies Learning

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Abstract. This research is based on the importance of developing the creativity of social studies teachers in creating fun learning while at the same time accommodating the achievement of student competencies. This study seeks to examine and describe edutainment-based social studies learning innovations at the junior high school level in Bandung City, West Java, Indonesia. The method used in this research is the Classroom Action Research method by adopting the Kemmis and McTaggart model. The design of this model has several stages, namely planning, implementation, observation, and reflection, as improvements for the next cycle. The study results indicate that the application of edutainment can be developed through the game method. Games in learning will provide opportunities for students to manipulate, repeat, discover for themselves, explore, practice, and get countless concepts and understandings. This is where students can make decisions, choose, determine, express opinions, solve problems completely, cooperate with friends, and experience various feelings. Games that can be developed in social studies learning with an edutainment approach, including games snake ladders, puzzles, and bingo. Several research cycles have been developed to produce a -based edutainment model design educational game following the characteristics of social studies learning without forgetting the development of students' thinking skills.

Keywords: Edutainment · Social Studies Learning Models · Social Studies · Educational Games

1 Introduction

During this time, the social studies learning _ Social events that occur in schools place more emphasis on mastering as much material or learning material as possible. This affects the formation of a learning atmosphere that is rigid so that it is less fun for students. The learning process centered on the teacher needs more opportunities for students to learn more actively. A learning culture that emphasizes rote culture needs more space for students to develop a culture of thinking. This condition causes students to consider social studies learning as a rote lesson. To overcome these things, of course, an appropriate strategy is needed to solve these various problems.

Social studies learning is faced with the challenge of continuing to self-organize and make changes toward a better condition. These changes start from a shift in the epistemological order to the development of innovation and prepare several problem solutions for social studies learning in the future. This is in line with the primary goal of social studies learning, which directs to preparing students as good citizens who can make thoughtful decisions and participate actively in life in the community, nation, and state. This includes optimizing the function of social studies. Learning is directed at equipping students with practical social knowledge, social skills, and intellectual development manifested in the form of attention and social care as part of human resources, which are responsible for realizing national goals. Social studies learning practiced in schools today seem to have not been maximal in carrying out and getting used to the experience of democratic, social life values by involving students and the school community in various class and school activities. Social studies learning still shows several weaknesses and is accused of being a "failure" because it emphasizes learning about knowledge, facts, and rote concepts.

Conditions of social studies learning, as described above, must be changed. If social studies learning only emphasizes information and memorization and is less directed at critical and creative thinking processes, social studies skills will not be able to prepare students to be able to live effectively and productively in their lives in the future. Thus, social studies learning needs to improve to be able to follow various developments that occur in the world globally. Negative impressions of social studies learning aspects such as less engaging Learning, an indoctrinated approach, trivial and uninteresting, of course, need to be changed. Social studies must develop itself into a learning process that can develop various potentials possessed by students and train critical and creative thinking skills packaged in an atmosphere of a pleasant learning process.

[1] argues that creating ideal Learning is by facilitating the learning process of students in order to achieve optimal learning objectives. They are facilitating optimal Learning by building situations that consist of synergized aspects and integrated into creating encouragement and motivation for students. However, the phenomenon that occurs in students today where they think that fun activities are outside the classroom or during class hours. This condition can show us that students feel burdened when in class, especially if they have to face certain boring subjects, one of which is Science. Social studies are learning. Thus, it is necessary to develop a science learning process with the knowledge that Social, creative, and fun for students.

Learning built in a pleasant atmosphere can focus students' attention entirely while studying so that the *time on task* is high. Fun learning will not cause students to feel bored because Learning is packaged as well as possible to attract students' attention with the various methods applied. Thus, fun learning is a learning process that takes place in a pleasant and memorable atmosphere. A fun and memorable learning atmosphere will attract students to be actively involved so that learning objectives can be achieved optimally.

The fun learning process (*joyful instruction*) will build strong cohesion between teachers and students so that they go through the learning process without feeling forced or pressured. A pattern of good relations is established between the teacher and students in a pleasant learning process. Teachers position themselves as students' learning partners; even in some instances, they do not rule out the possibility of teachers learning from

their students. In this case, it is necessary to create a democratic atmosphere, so there is no burden for teachers and students in the learning process [2].

Learning is said to be fun if there is an atmosphere that is relaxed, free from pressure, safe, enjoyable, awaken interest in Learning, full involvement, students' attention is devoted, a learning environment is engaging, enthusiastic, feelings of joy, high concentration. On the other hand, Learning becomes unpleasant when the atmosphere is depressed, feeling threatened, feeling scared, feeling helpless, unenthusiastic, lazy/uninterested, bored/bored; the learning atmosphere is monotonous, Learning does not attract students [3].

It is necessary to develop a fun social study learning process that can develop students' full potential in the context of mastering 21st-century skills. This learning process can be developed through the *Edutainment model*. *Edutainment* comes from the word *education* which means education and entertainment. Regarding language, *edutainment* is entertaining or fun, usually done with games, role-playing, humor, and demonstrations [4] Apart from what Sutrisno mentioned, Learning can be done in other ways as long as it can provide a fun learning for students.

Edutainment seeks to facilitate and build social interaction with students by including various lessons in the form of entertainment that students are already familiar with. Forms of entertainment include television shows, computer games, video *games*, movies, music, websites, and multimedia devices [5] Besides that, *edutainment* can also be in the form of education in the wild, which can entertain and learn. Meanwhile, in terms of terminology, *edutainment* is a learning process that is designed in such a way that education and entertainment content can be combined harmoniously to create fun learning, usually carried out with humor, games, role-playing, and demonstrations.. Learning can also be done in other ways, as long as students can go through the learning process happily.

2 Method

The research method used in this research is *Classroom Action Research*. According to Dave Ebbut, [6] "Action research is a systematic study carried out by a group of participants to improve educational practice with their practical actions and their reflections on the effect of the action itself."

The research design in this study is the research design of the Kemmis and McTaggart models using four components of action research: planning, action, observation, and reflection. The researcher uses this design because it contains components that follow the research in the model developed by Kemmis and Mc. Taggart, each cycle consists of one action following the solution that will be developed as problem-solving in research so that it is expected to facilitate the research to be carried out.

If it is related to this research, the researcher begins by preparing an action plan, including lesson plans, making materials, and making observation tools. After that, the researcher took action using the developed edutainment *model* with games educative as snake ladder, puzzle, and bingo. Third, researchers apply the observation guidelines that have been made before and carry out the observation stages to obtain optimal results. Finally, carry out the reflection stage by reviewing which indicators still need to be achieved. So that in the next planning, researchers can improve the following action.

The research instruments used in this study were observation sheets, field notes, and interview guides. The collection technique carried out by researchers is to use observation, interviews, and documentation studies. Then the results of this study were processed and validated by *member checks, triangulation, audit trails, and expert opinions*.

3 Results and Discussion

Based on the research findings, three edutainment models can be developed for science learning Knowledge Social. Developed edutainment model design based on game education. Third-based edutainment model design game educative the is game snake ladders, puzzles, and bingo. As for the design, The model can be explained as follows:

3.1 Game Snake Ladder

Snakes and ladders is a game played by two or more people. In the game of snakes and ladders, there are small boxes, and in some boxes, there are several ladders and snakes that connect to other boxes. This game can be used for all subjects and all grade levels because it only contains various forms of questions that students must answer through the game following certain grade levels and subjects.

The snakes and ladders game can be fun for students and increase student learning activities. Students will tend to be interested in paying attention to the delivery delivered by the teacher in delivering material, increasing the concentration of students because the snake and ladder game is not only a game that answers questions and then gets a turn to advance to the finish line but in the snake and ladder game, some variations make the snake game stairs are more challenges faced by students. In this case, the teacher acts as a facilitator for students. Students active in the game of snakes and ladders can find their concept of the material being studied. The game of snakes and ladders in learning must be adapted to the material being studied so that students are more active and motivated in the learning process.

According to [7], there are several rules for using snakes and ladders games, namely:

- 1. All players start the game starting from tile number 1.
- There are a certain number of snakes and ladders on certain squares on the game board.
- 3. There are two dice and several pieces. The number of pieces used is according to the number of players.
- 4. The length of snakes and ladders varies; some are long or short.
- 5. During his turn, the player rolls the dice and can advance his piece by the number of squares according to the number of the dice.
- If the player's pawn ends at the square containing the ladder's foot, then that pawn has the right to advance several squares until it reaches the square designated by the top of the ladder.
- 7. If a player's pawn ends up in a tile containing a snake's tail, the pawn must drop or retreat to the tile indicated by the snake's head.
- 8. The winner of this game is the first player to reach the finish box.

Based on the description above, the snake and ladder game is an interaction between players through the snake and ladder board game using pawns and dice according to predetermined rules, answering questions that have been prepared by the teacher to be thrown to each group, providing challenges in the snake and ladder game to see cooperation from each group in participating in the games that have been prepared, then seeing student activities during learning and games. In practice the teacher prepares carefully to achieve certain learning goals.

As for the design *edutainment* model with the game snake developed ladder _ on the study, this is:

- 1. In the first cycle, the snake and ladder game banner consists of 16 boxes, three ladders, and four rifles.
- 2. If a pawn steps on a ladder, the pawn is required to sing a song with the movement "going up and down to the finish line," whereas if a pawn steps on a gun, the pawn is required to sing a song with the movement "back and forth, backward, backward."
- 3. In the second cycle, the snakes and ladders game banner consisted of 49 boxes, four ladders, three snakes, and three exclamation-marked boxes.
- 4. If a pawn steps on a ladder or snake, the rules remain the same as in the first cycle, namely singing the song that has been set as in the first cycle using movement.
- 5. Then, before answering the questions given, the researcher added a challenge in the form of a puzzle game. If they succeed in compiling the puzzle, the winning group can answer the questions that have been read, and the pawn representatives can roll the dice to advance to the finish line.
- 6. If the pawn steps on the box are marked with an exclamation in the second cycle, then the pawn is required to choose one of the papers coded a, b, c, d in which you can ask a question or sing a folk song.
- 7. In the third cycle, the banner for the Snakes and Ladders game was still 49 boxes, but there was a change in the box marked with an exclamation.
- 8. If the pawn steps on the box marked with an exclamation in the third cycle, the pawn will get the prepared draw; the contents of the draw can make the pawn move three steps forward or three steps backward.
- 9. Then, before answering the questions in the third cycle, the researcher added a challenge in the form of a picture guessing game. If a group is quick to answer the *clue* that has been presented and the group succeeds in answering the picture guess that has been prepared, the group can answer the question that has been read, and the pawns can throw the dice to advance to the finish line.
- 10. After successfully answering the questions that have been read, the pieces can roll the dice to advance to the finish line.

3.2 Puzzles

Simply put, *Puzzle* in Indonesian means puzzles or fragments of an image which are usually played in groups and by disassembling pairs or arranging them into a unified whole. [8] reveals that *a Puzzle* is a game consisting of pieces of one particular image that can train the concentration level. In addition, [9] explains that *a puzzle* consists of pieces of pictures, boxes, letters, or numbers arranged as in a game which eventually forms a

specific pattern. You so that it makes students motivated to solve *puzzles* correctly and quickly.

[10] explains that various puzzle games can be played, including spelling puzzles, jigsaw puzzles, thing puzzles, letter readiness puzzles, and crossword puzzles. A spelling puzzle is a puzzle game consisting of random pictures and letters arranged to form a correct vocabulary. A jigsaw Puzzle is a puzzle game that consists of questions to be answered, and then the first letters are taken from the answers to be assembled into a word that answers the final question. The Puzzle is a puzzle game similar to description sentences related to pictures to match. Meanwhile, the letter reads Puzzle is a puzzle in the form of pictures accompanied by the letters of the picture's name. At the same time, the crossword puzzle is a puzzle game consisting of questions that must be answered by entering the answers into the available boxes either horizontally or downwards.

The puzzle game described above can be used to learn social studies. With puzzle games, students not only feel that they are playing, but through this game, students can hone their knowledge and skills. Because when students are faced with fun things, it can encourage them to follow the learning process optimally. In addition, the puzzle game not only asks students to arrange the fractions correctly, but students must first understand the material that the teacher has explained to arrange the puzzle pieces correctly and explain the meaning of the pieces. In addition, puzzle games can encourage students to learn the subject matter first to complete each challenge given. That way, the puzzle game can be an educational game that trains logic and fine motor skills and practice problem solving or problem-solving to match the puzzle pieces [11].

In this study, the steps of the *puzzle game* developed by the researcher are as follows:

- 1. Students are divided into six groups; each group consists of 5–6 people.
- 2. Each group will get a turn to play when they get points on the wheel of fortune. Moreover, the group that does not get a choice of points in their turn to play will be passed.
- 3. Explaining the steps in the *puzzle* game that this game will be divided into three rounds and using the type of *jigsaw puzzle game* that has been modified by the researcher, namely in the first round, each group is asked to arrange and explain the contents of the *puzzle image* which is divided into eight pieces, the second half students four questions will be given and from each correct answer will open the *puzzle image* listed on the *power point* then after all the pieces have been opened students are asked to explain the story of the *Puzzle* by playing a scene from one of the stories. In the third round, the teacher will give random questions to all groups.
- 4. If they cannot arrange or explain the contents of the *Puzzle* correctly, the group will be punished.
- 5. The group that gets the most points is the winner.

3.3 Bingo

One way that teachers can liven up the classroom atmosphere is to use game methods, one of which is the game of Bingo. Bingo is a type of game in the form of a numbered table with the order of 5x5, which contains questions in each box. The group of students will achieve victory if they answer five questions correctly and quickly to master one of

the series horizontally, vertically, and diagonally so that they reach the word "bingo." [12] said that using bingo games could increase students' motivation to answer questions to give positive results on a scale of 8 out of 10.

This bingo game was developed from the *lotto* game; with a technical game, the players will be given a number card to match the numbers randomly chosen by the officer. The word "Bingo" was first used by Edwin S. Lowe, a seller of children's toys in New York because of his mistake in capturing the screams in the game. The word that is shouted is "beano" (from the word bean) when someone wins the game. In its development, Bingo is defined as "... a game in which players mark off numbers on cards as the numbers are drawn randomly by a caller, the winner being the first person to mark off all their numbers" [13] and Bingo a spontaneous shout as a sign of joy and victory by the players. Bingo is a game that uses randomly issued numbers and then players mark them on the coupons they carry, forming a predetermined pattern. At the same time, the word Bingo is an interjection that is pronounced when the player succeeds in forming a predetermined pattern.

[14] states several types of Bingo games are used as learning media: Letter *Bingo*, *Math Bingo*, and *Wall Bingo*. *Letter Bingo* is a bingo game in which the teacher gives a clue for a word, and students must first solve the clue, then mark the letter they think is the starting word. The goal is to be the first player to mark four letters vertically, horizontally, or diagonally from corner to corner. *Math Bingo* is a game used to improve students' ability to count. The teacher distributes to each student a bingo game table containing the numbers in each box. Then the teacher gives math questions; each group gives a mark on the numbers in the box according to the answers to the math questions that are thought to be correct. At the same time, *Wall Bingo* is a type of bingo game played like the game on television, Jeopardy. The points table for this game is posted on the wall. Groups of students choose the number of points they want. Then the teacher will give questions whose difficulty level corresponds to the point number level. If the group can answer the question correctly, the teacher will close the box and give the group points according to the points that have been selected. Student groups will also get bonus points if they succeed in closing three or more boxes in one row.

Bingo can be an alternative method for teachers in carrying out the learning process. The game concept in Bingo can make students more enthusiastic about learning. Especially if Bingo is packed with creative and varied steps, then learning Science Knowledge Social as a subject that is considered boring will turn into fun learning. This cannot be separated from the *edutainment concept* contained in bingo games.

In general, the steps of bingo games that teachers can develop, according to [15] are as follows:

- a. Formulate a total of 24 or 25 questions about your course material.
- b. Sort the questions into five piles. Label each stack with the letters BINGO. Create Bingo cards for each student. This card should look exactly like a regular Bingo card, with numbers in each of the 24 slots in a 5x5 matrix (the "blank" center slot).
- c. Read a question with an associated number. If a student has the number and can write down the answer correctly, he can fill in the gap.

d. If a student reaches five correct answers in a row (either vertically, horizontally, or diagonally), that student may shout, "Bingo." The game can be continued until all 25 gaps are filled.

In this study, the technique of bingo games will be varied by researchers. The technical variations of bingo games that researchers will use are as follows:

- 1. Students are divided into five groups, each consisting of six to seven people.
- 2. The teacher distributes *emoticons* as group identification.
- 3. The teacher gives questions that must be answered quickly by the group, and the group that manages to answer quickly and correctly has the right to stick their identification on the bingo board to arrange the mission of stringing bingo words horizontally, vertically, or diagonally.
- Some questions will contain challenges and entertainment tailored to the learning material.
- 5. The group that succeeds in stringing the word Bingo must shout "BINGO" in their group's signature style.
- 6. The group that manages to string together the bingo words on the board and shout "BINGO" in unison simultaneously is the group that becomes the winner.

The *edutainment model* is basically to create a learning process that can improve the condition of a passive class by turning it into a more active class. Of course, this is done in a fun way so that students are no longer bored and silent during the learning process. Such a learning process is not solely so that students can participate in learning, but the essential thing that must be achieved is the achievement of learning objectives.

Many experts have defined Edutainment, one of which is Druin & Solomon, who said, "Edutainment is stated as a place composed of a mixture of many items (such as sound, animation, video, writing, and picture) and a place where learners both have fun. And learn [16]. Edutainment is the concept of learning combined with entertainment so that learning becomes fun. Edutainment is packaged in such a way as to produce an entertaining learning process for students. Fun and entertaining learning is usually done with games, role-playing, or demonstrations, but it can also be felt with the pleasure students enjoy.

Edutainment can *be applied in* any educational pattern. Because, in its journey, *Edutainment* has transformed into various forms, one of which is *active learning*. Active learning or *active learning* is a learning approach that involves more student activities in accessing various information and knowledge to be discussed and studied in the learning process in class so that they get various experiences that can increase their understanding and competence [17].

[15] explains that active learning can be done through games, fun games, or quizzes that will attract students' ideas, knowledge, or skills. In the study, this is Edutainment developed through several games, namely puzzles, bingo, and snake stairs. Games in learning will provide opportunities for students to manipulate, repeat, discover for themselves, explore, practice, and get countless concepts and understandings. This is where students can make decisions, choose, determine, express opinions, solve problems thoroughly, work with friends, and experience various kinds of feelings.

Teachers have a significant role in creating active and conducive learning activities. Therefore, the teacher should be able to use all means to improve learning activities that are always considered monotonous. One way the teacher can improve these conditions is by applying the game method because one of the elements contained in the game is a pleasure and is not accompanied by pressure, so that students will prefer fun things. According to [18] the game method is an activity that is fun and is an educational method or tool that can be useful in developing oneself as a whole. This means that educational games are a form of educational activity using educational methods or tools to develop oneself. In addition, the game is not only used to seek pleasure but can be applied as a learning method that can later create an educative and fun learning process. [19] explain that the primary key to an educative game is if the game uses value, effectiveness, and efficiency, which positively directs the educational process.

[20] playing while learning involves students' activeness in learning because games invite each student to try new things, and through this, learning can also explore students' creativity in learning. So, the learning process that is packaged in the form of a *game method* can attract students' interest during the learning process.

4 Conclusion

Based on the research that has been done in the development of edutainment models in social studies learning, several conclusions can be drawn by researchers, including:

- 1. At the planning stage, it is essential to prepare a good and systematic lesson plan to implement the edutainment model. Likewise, it is necessary to carefully plan and prepare all learning support facilities, media, and teacher readiness in carrying out the learning process
- 2. The importance of formulating learning objectives and indicators that direct students' abilities and learning activities as a whole, including the development of edutainment. Because the indicators developed still show dominance in the development of abilities in the cognitive domain or the development of aspects of knowledge. So it is essential to formulate indicators that develop aspects of attitudes and skills
- 3. There are three edutainment development-based game educational models that can be practiced in learning social studies. The first is a snakes and ladders game, the second is a puzzle game, and the third is a bingo game. All three designs Such learning prioritizes the active role of students by developing a fun learning process following the characteristics of the edutainment model.
- 4. The evaluation developed leads to an authentic assessment exploring all students' abilities. Evaluation is developed in the realm of knowledge, attitudes, and skills. Both individually and also in groups

References

- 1. J. Sayono. (2013). Learning History in Schools from Pragmatic to Idealist. Journal of History and Culture, 7, (1), 9-17.
- Rusman. (2014). Learning Models: Developing Teacher Professionalism. Jakarta: PT RajaGrafindo Persada.
- 3. Indrawati & W. Setiawan. (2009). Active, Creative, Effective and Fun Learning for Elementary School Teachers. Bandung: Center for Development and Empowerment of Natural Science Educators and Education Personnel (PPPPTK IPA).
- 4. A. Sutrisno, & H. Pillay. (2013). Purposes of transnational higher education programs: Lessons from two Indonesian universities. Studies in Higher Education, 38(8), 1185-1200.
- 5. S. Hamid. 2013. Edutainment Methods. Yogyakarta: DIVA Press.
- D. Hopkins, S. Stringfield, A. Harris, L. Stoll, & T. Mackay. (2014). School and system improvement: A narrative state-of-the-art review. School Effectiveness and School Improvement, 25(2), 257-281.
- 7. F. Rahman (2012). Snakes and Ladders Game. Polytechnic Papers. Bandung: Unpublished.
- 8. A. Soebachman (2012). Fun Games Make Smart Kids. Yogyakarta: InAzna Books.
- 9. N. Husna. (2017). Development of Puzzle Media Material on Environmental Pollution at SMP Negeri 4 Banda Aceh. Journal of Indonesian Science Education, 5, (1), 66-71.
- Aryani. (2012). Improving Beginning Reading Results Through Puzzle Games for Class 1 Semester 1 Students of SD Negeri 3 Siderejo. Education Journal.
- D. Amanah. (2018). Penggunaan Media Puzzle Picture Untuk Meningkatkan Hasil Belajar Ipa Materi Alat Pernapasan Manusia Pada Siswa Kelas V Semester 1 MI Klumpit Kecamatan Karanggede Kabupaten Boyolali Tahun Pelajaran 2017/2018 (Doctoral dissertation, IAIN Salatiga).
- 12. R. Weisskirch. (2009). Playing Bingo to Review Fundamental Concepts in Advanced Courses. International Journal for the Scholarship of Teaching and Learning, 3, (1).
- 13. G. Hornby, & C. Witte, C. (2010). Parent involvement in rural elementary schools in New Zealand: A survey. Journal of Child and Family Studies, 19(6), 771-777.
- 14. Sugar, et al. (2001). Primary Games . San Francisco: Jossey Bass.
- M. Silberman. (2009). Active Learning: 101 Strategies Learning Active. Yogyakarta: Libraries human Madani.
- N. Aksakal. (2015). Theoretical View to The Approach of The Edutainment. [Online]. https://www.sciencedirect.com/science/article/pii/S1877042815023411
- 17. Rusman. (2016). Learning Models . Jakarta: PT Raja Grafindo homeland.
- 18. A.P. Gilakjani, L.M. Leong, & H.N. Ismail. (2013). Teachers' Use of Technology and Constructivism. International Journal of Modern Education & Computer Science, 5(4).
- Mujib & Rahmawati. (2013). Metode Permainan Edukatif Dalam Belajar Bahasa Arab. Diva Press.
- 20. H. Aulawi, R. Govindaraju, K. Suryadi, & I. Sudirman (2009). Hubungan knowledge sharing behavior dan individual innovation capability. Jurnal Teknik Industri, 11(2), 174-187.

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