

Gamification Application in Creating Active, Interesting, and Fun Sociological Learning

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Abstract: Gamification means applying game design elements in non-game conditions. The design game elements in question are missions, challenges, levels, points, star badges, leadboards, rewards. Elements that normally exist in a game are now applied in non-game conditions. The use of gamification has been applied in various fields. In education, gamification can be applied as a learning method. When students do the learning process it feels like playing a game. In this study, gamification is applied in the Sociology of Social Cultural Diversity learning for Class X Senior High Schools. The purpose of this gamification is a solution to teacher center sociology learning, teacher-centered learning so that learning becomes boring. Through analyzing the response data of students who have carried out learning with gamification, it can be seen whether this gamification makes sociology learning active, interesting, and fun. The research method uses descriptive quantitative. The results showed that gamification succeeded in creating active, interesting, and fun sociology learning. Students feel sociology learning is not boring and feel motivated to complete the task well.

Keywords: gamification, sociology of social, cultural diversity

1. INTRODUCTION

Gamification is the use of game elements in a non-game context. Definition of gamification [1] is a game design element used in nongame activities. Gamification is used to motivate people to do something. This is in line with the opinion of detarding in the journal [2] defining gamification is using game elements in a non-game context to motivate, increase user activity and memory. Gamification is currently widely used in various economic, business and educational activities. In general, gamification is applied in marketing strategies to achieve more memorable objectives, but it cannot be denied that the gamification approach also has great potential in the field of education [3]. In the 1980s, Malone and Lepper conducted an analysis of the positive impacts that emerged when game elements were applied in learning activities [4]. The elements in question are points, levels, rewards, leaderboard, narration, and badges. In addition, there are also game characteristics that can be applied in learning such as challenges that will make learning more interesting and fun.

The application of gamification in learning is one of the innovations in overcoming problems in the world of education, one of which is the boring Sociology learning. Sociology learning becomes boring for students because this type of subject contains a lot of knowledge in the form of concepts and theories that make students think too abstractly [5]. Then the Sociology learning method

that is often used in learning is the one-way learning method or the teacher center. The teacher explains the material, then the students listen and note the important parts [6]. Learning methods like this clearly make students bored due to the lack of interaction in the learning process between teachers and students or students and students. The way students get information through listening and taking notes will produce a cognitive level of understanding at stages C1 (knowing) and C2 (understanding) [7]. In teacher center learning, students do not have the opportunity to find, analyze, apply, and be creative in the learning process. The teacher's expression as the only source of knowledge is of course irrelevant to current educational developments. Especially in the Sociology subject which aims to provide provisions for students before going into society.

The importance of knowing the knowledge of various things that occur in society, so that in the 1994 curriculum, Sociology began to be included in formal learning in schools, namely at the high school level (SMA) [2] [8]. In school, Sociology is integrated in the Midwife for Social Sciences Studies (IPS) along with courses in Economics, History, Geography. The aim of the Social Science (IPS) lessons in schools is to educate students to be good citizens or so-called good citizenship either through theory or practice. As a good citizen, he must have knowledge, skills, attitudes and values that are useful for solving problems that will occur in personal

life or in society at regional, national, and even international levels.

Sociology learning must be able to really teach students so that the goals of sociology education can be achieved. As state Degeng all efforts made to make students learn can be called learning. Making students learn is not something easy, a teacher needs to pay attention to several things so that students can learn, one of which is a method which means "how" (Sutikno, 2014). To achieve learning objectives, a procedural method is called the learning method. When a teacher is able to analyze the conditions of learning, apply appropriate methods or methods, the learning is sure to give maximum results.

The application of gamification in learning Sociology, Variety of Social Culture at the level of Senior High School (SMA) class X has proven successful. Sociology Learning which contains a lot of information in the form of theories and concepts is packed with gamification so that the learning process runs actively, interestingly and pleasantly. The learning flow is made more interactive by involving teacher, student and community interactions, according to the principles of Sociology learning. In this way, Sociology learning can return to its spirit. Students can understand theory and apply it in society but are still within the scope of teacher controlled learning. In line with [9] reveals that deliberately designing a person's environment to make him do something that has been designed is a learning process.

2. LITERATURE REVIEW

a. Gamification

Gamification [1] is the use of game design elements in the context of nongame. Points, badges, levels, narration and so on, are game elements used in the application of gamification. In its development, gamification has the main thing, namely how to build motivation [10]. Lately, gamification is often used in economics and business and has even begun to penetrate the world of education. Gamification is used to motivate people to do something. In the 1980s, Malone and Lepper conducted an analysis of the positive impacts that emerged when game elements were applied in learning activities. Principles or game elements that are often used, namely levels, points, badges, rewards, feedback, task lists, and social graphs are applied in learning [11].

Points. In the game one of the most important elements is the points. Almost all video games use this element. Using points can show a person's level, progression, etc. With the help of this element, a person can also be motivated to continue using a product, for example motivated to increase his status on the leaderboard, compete with others to get the highest points [12] explaining the function of points are as follows, declaring value (seen in the game by others), declaring the status of victory (the highest value that wins),

presenting a prize that can be obtained is a form of feedback on something that has been done and shows the progress or progression of data for game maker, and can be exchanged (can be used to present anything, in the real world such as money).

Badges, badges on games are simply not very visible to use, but with the latest video games nowadays badges are very common. Badges represent a unique status, not everyone can get a badge. For example, by completing a task someone will get a badge, then people who have not completed the task cannot get the badge they have, some of the functions of the badge are as follows: represents achievement, is flexible (can represent anything according to the wishes of the programmer), style, signifies things important, signifying the quality of oneself, collection, and social status [13].

Leaderboard, serves to motivate someone to keep playing the game in order to get status in a game [14]. But to use this element you have to be careful, because it can be things that don't motivate a beginner to play a game if he has seen the highest status of the leaderboard very far from him. The 2 types of leaderboard are as follows: (1) Rating-Feedback from a competition, how good we are from others; and (2) Personalized leaderboard - only provides ranking information from personal friends or equivalent, so it doesn't immediately see the highest ranking.

Level / Level, level or level is the main element that is always found in a video game [15]. With this element, people are motivated to continue to improve their level to reach the highest level. With this level of elements, people are also more structured to play the game according to the plot of the game maker. With the level element, people can also compete equally so that there is no impression that it is too high or too low.

Progress / Progression, progress is used to state the progress status of a thing [16]. For example, what is often used in games is the progress of experience points to advance to the next level. Progress is very useful for motivating someone to pursue his goals. Progress can also not only be shown through points, but can also be a roadmap or a table of tasks to be done. With the element of progress, people will not easily feel bored when doing a task even though the task is given repeatedly, because they feel that they are experiencing progress.

Narration, a narrative is a story composed by a game maker to guide one's emotions. Sometimes people's narratives become directed at the thoughts of the game maker so that they are focused and motivated in playing the game [17]. Narrative can also be used to attract someone's curiosity so that he continues to want to finish the game.

Feedback, in a game is very important. Feedback is useful for knowing the response to a product (game) after use. With this feedback, product makers will know what is good or bad about the products they produce [18]. Feedback is also a tool for people to interact with programmers. [19] explain in its design to motivate

employee performance using feedback. There are several parameters that need to be considered when making feedback, namely frequency (how often the feedback is given), time (when the feedback is given), content (details of the content of the feedback given) and specific (type / nature of the feedback). Feedback is an important component in keeping people engaged with the product.

Task List, a task list is a component that is used to guide someone to do things that programmers want. In video games the list of tasks is often known as Quest. Usually in the form of looking for something, or completing something so that it gets points from the task list. The list of tasks is also related to progress, where usually to complete the game a person must walk according to the list of tasks given. With a task list, someone is more focused and motivated to keep interacting with the product [20]. What program makers need to pay attention to in making to-do lists is that their conciseness and level of difficulty must be adjusted to the person using the product, so that the task can function effectively.

Avatar, avatar is one of the elements that is currently widely used by game creators. Avatar is an image that is chosen or created by the profile creator to be displayed as a profile photo of an account, representing the account owner about himself or the account owner's emotions [21].

Social graph is a relationship from an account owner to other account holders on a social network. With the existence of many social networks, many social graphs have been created. Social graph helps the distribution of information on an account both in terms of content and speed of distribution.

Then from the 10 game principles described above can be applied as a whole or in part by adjusting the needs in learning [22]. Games can make students learn in fun conditions and ways that are not easily forgotten, insert theories and connect knowledge. Traditionally, unstructured problems, time pressure, teamwork, competition, collaboration and other characteristics of games promote the development of complex abilities for students. Collaboration, communication, critical and creative thinking skills are honed in the gamification learning process. These various components work together to create an active and fun learning atmosphere for students.

b. Active, Interesting, and Fun Learning

Active learning, according to [23] active learning is learning that invites students to learn actively. When students learn actively, it means that they actively use the brain, both to find the main idea of a learning material, solve problems, apply what they have just learned to a problem that exists in real life. Teachers must realize that activeness requires direct involvement of students in learning. A Chinese philosopher, Confucius[24]reveals that what I heard, I forgot; what I saw, I remember; what

i do, i understand. From these words of wisdom, it can be seen how important the direct involvement of students is in learning. Students' understanding of a learning material will be better if it is accompanied by student involvement in the learning process.

The characteristics of active learning as stated in the ALIS model learning guide (Active Learning in School, 2009) are as follows: (1) student-centered learning, (2) learning related to real life, (3) learning encourages children to think at higher levels, (4) learning serves different learning styles for children, (5) learning encourages children to interact multi-way (student-teacher), (6) learning uses the environment as a medium or learning resource, (7) child-centered learning, (8) structuring the learning environment makes it easier for students to carry out learning activities, (9) the teacher monitors the student learning process, and (10) the teacher provides feedback on the children's work [25]. Interesting learning, interesting learning is a learning concept that helps teachers link the material they teach with students' real-world situations and encourages students to make connections between their knowledge and its application in their daily lives. Learning is fun, Joyful Learning comes from the word joyful which means fun while learning is learning.

Dave Meier [1] states that joyful learning is a learning system that seeks to generate interest, full involvement, and create meaning, understanding, and happy values in students [26]. Joyful learning is not merely learning that requires children to laugh out loud, but rather a lesson in which there is strong cohesion between teacher and student in an atmosphere that is completely unstressed. There is only a communication network that supports each other. When students feel interested and feel happy in learning, a strong desire to learn will grow.

This desire is also called learning motivation [27] said that learning motivation is the overall driving force within students that gives rise to learning activities, which ensures the continuity of learning activities and provides direction for learning activities, so that the goals desired by the learning subject can be achieved. Furthermore [28] said motivation is a power or strength that arises from within students to provide readiness so that the goals that have been set are achieved. Meanwhile, learning is a process carried out by students to obtain better and previous behavior changes as a result of students' experiences in interacting with their environment.

c. Gamification in Sociology Learning of Various Social Culture

Gamification in learning the Sociology of Social Cultural Diversity, namely the application of game elements in this learning. The following is the concept of sociology learning using gamification. In this learning design, the learning flow is based on the modules used by

students, this is done so that the learning process runs coherently and does not confuse students. Based on the module used, the subject of Social Control discusses 8 important things, namely: (1) the nature of social control; (2) control methods through institutions and non-institutions; (3) verbal, symbolic and violent control methods; (4) methods of social control through rewards and punishment; (5) formal and informal methods of social control; (6) how to control social through socialization; (7) ways of social control through social

pressure; and (8) the role of formal and informal institutions in social control.

Then the 8 materials are arranged using one of the gamification principles, namely the level. The characteristic of the level is that the more the level, the greater the difficulty level to complete the mission. There are 4 levels, each level has a mission to complete. Following is the organization of the material based on the level principle (Table 1).

Table 1 The Organization of the Material Based on the Level Principle

Level	Theory	Mission / KD	Challenge
I	The Nature of Social Control	a. Knowing the nature of social control. b. Understand the nature of social control	Quick Right! a. Understand the material from the PPT b. Quiz competes to guess videos related to the material.
I	Methods of Social Control a. Through institutions and non-institutions b. Oral, symbolic, and violent c. Through rewards and punishment d. Formal and informal e. Through outreach f. Through social pressure	a. Know the various social controls b. Understand the various ways of social control	Defend Your Points! a. Each group makes a mind-mapping from the material that has been shared. b. Each group is given a point which they must defend by answering the quiz correctly
III	The Role of Formal and Informal Institutions in Social Control	Knowing the role of formal and informal institutions in the school environment in social control	Search and Find the Answer! a. Each group must find and interview stakeholders in the school environment who have a role in social control, namely: ▪ Headmaster ▪ BK teacher ▪ Homeroom teacher ▪ Librarian ▪ School security guard ▪ Canteen Officer b. Before interviewing each group must make a hypothesis about the problems that may be related to the stake holders that will be interviewed. c. Interview time for 30 minutes to find out the truth of the hypothesis that has been made. Then how do the related parties control the problems that occur.
IV	Review material I, II, and III	Knowing, understanding, analyzing, and concluding about social control	The Analysis You Find! At this level the challenge is homework. After finding out the role of each stakeholder in social control, the next task is to analyze the roles that are carried out, including in formal / informal ways and including in what kinds of social control methods. Assignments are collected at the next meeting.

The learning process is carried out according to the concepts above the flow in the Table 1. The application of game elements is arranged in such a way that students can feel the gamification itself. After the learning process is carried out, students complete a test to determine the level of student understanding of the material being studied. Then to find out students' perceptions of learning that applies gamification, students fill out a response questionnaire. The data from the response questionnaire will be processed to determine whether gamification has

succeeded in packaging Sociology learning into active, interesting and fun learning for students.

3. METHOD

This research method is descriptive quantitative. Quantitative descriptive research is research that aims to explain the existing phenomena by using numbers to compare individual or group characteristics[29]. This study aims to find out and dig deeper about the role of

gamification in creating active, interesting and enjoyable sociology learning in terms of the responses of students who have carried out the sociology learning process with gamification. This research is divided into several stages (Figure 1), namely:

- a. Stage 1, conduct a literature review. The literature review was carried out related to gamification and sociology learning. At this stage the researcher looks for a strong theory related to gamification, such as gamification definition, gamification development, then specifically the use of gamification in education, then more specifically in the subject of Sociology.
- b. Stage 2, analyze the data obtained. After finding the basic theory as a foundation, then looking for the data needed to prove that the application of gamification in sociology learning can create active, interesting, and fun learning for students. The data presented in this article is data obtained from previous research “Gamification of Sociology Learning Materials Variety of Social Symptoms as

an Active and Fun Sociology Learning Innovation”. From previous research that discusses the validity of the learning design products developed, this article focuses more on student responses which prove that the application of gamification can create active, interesting, and fun sociology learning.

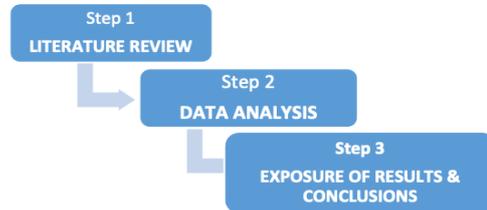


Figure 1 Research Steps

The analysis process was carried out starting from the response questionnaire grid that was given to students. The following is a grid for the student responses in the previous research (Table 2).

Table 2 A Grid for the Student Responses in the Previous Research

No	Indicator	Sub indicator	Grain	Numb Grains
1	Learning design facilitates the learning process	The learning design function is to facilitate the learning process	1	1
2	Learning design can increase learning activeness	Physical activity	1	5
		Social activity	1	
		Intellectual activity	1	
		Emotional activity	1	
		Motion picture activity	1	
3	Learning design can increase learning motivation	Grading	1	9
		There is a gift	1	
		There is competition / competition	2	
		Presentation of learning outcomes / achievements	3	
		There is praise	1	
		There is a punishment	1	
		There is a desire to learn	1	
Total instrument items				15

Then proceed to analyze the itemized statements on the results of the questionnaire that the students had filled in. The following is a student response questionnaire containing 15 statement items, namely: (1) social control material becomes easier to learn by learning gamification; (2) i did a discussion with a group of friends; (3) i help in completing the challenges given; (4) i got points and badges; (5) i feel good when my group gets points and star badges; (6) i feel sad when i get a point deduction and i don't get a star badge; (7) the best group will get a prize; (8) i want to be the best group; (9) i try to finish the challenge properly; (10) i know the group points earned at each level; (11) i am aware of the acquisition of the group star badge at each level; (12) i know the rank of the groups at each level; (13) i get compliments when i complete a challenge correctly or answer a question correctly; (14) there is a point

deduction for not completing the challenge; and (15) i want to finish learning to the last level.

The last stage, presentation of the results and conclusions. After analyzing and obtaining the results, the data is presented through a percentage diagram. There are 2 percentage diagrams presented, namely specifically the students' answers to the statements and diagrams that have been averaged based on categories which show that the gamification of learning sociology of various social cultures has succeeded in creating active, interesting, and fun learning for students.

4. RESULTS

In 2013, Glover conducted a research on the challenge of gamification, “Play as you learn: gamification as a technique for motivating learners.” The aim of this research is that Glover wants to prove that

gamification can create learning motivation for students. from his research succeeded in proving that: (1) gamification uses game elements to provide practical solutions by building engagement; (2) gamification is a concept that uses game-based mechanics, aesthetics and thinking games to bind people, motivate, promote learning, and solve problem; and (3) gamification provides additional motivation to ensure students take complete learning [30].

Then, in 2013, Rohaila Mohamed Rosly and Fariza Khalid from Malaysia also conducted research on gamification with the research title “Gamification: Concepts and Implications in Education”. This research departs from the times and changes in generations which automatically also affect the world of education. Gamification is considered to be a suitable strategy for the 21st century generation. This study describes in more detail the concepts and ways of implementing gamification in learning. In this study concluded that gamification in education contains elements of very interesting ideas and innovations in the learning process [31].

In 2016 Luis de Marcos conducted a research on the effectiveness of learning approaches using social and games. This research compares the games in the fields of education, gamification, and social networking. In addition, in his research this time he added a new approach, namely social gamification, where the two approaches are combined into a new approach. Luis de Marcos compared 4 approaches in his research, namely educational games, gamification, social networking, and social gamification. The research objective is to determine whether there are differences in learning outcomes achieved from each of these approaches. The results of the experiments conducted, social gamification has better results than the other 3 approaches [32].

In 2018, Yosi Marenda Wirawan1 and Rizki Wahyu Yunian carried out “Development of Gamification Teaching Materials on Association Materials”. This development aims to create appropriate and attractive teaching materials to use for Mathematics learning, especially the Association material at the VII grade junior high school level. After conducting small trials, then field trials, this study also proved that the teaching materials that have been developed are very feasible with an average percentage of 76%. Then the results of student responses reached an average of 3.4 with a very interesting category and the results of teacher responses reached an average of 3.3 with a very interesting category [33].

In 2020 Luis Rumianda developed a Sociology Learning Design Using Gamification for grade X SMA students. The results of student responses who have carried out the sociology learning process with gamification can be analyzed through respondent questionnaires. Respondents amounted to 31 people in 1 class. Then, this response questionnaire consists of 15 statements (P.1-P.15) which are categorized into 3,

namely, the ease of learning has 1 statement, activity has 5 statements, and learning motivation has 9 statements (active and fun). Each item of the statement has a value of 1-5 which is filled in by the respondent according to the learning they have experienced. The following is the percentage of responses from 15 statements by 31 students (Figure 2).

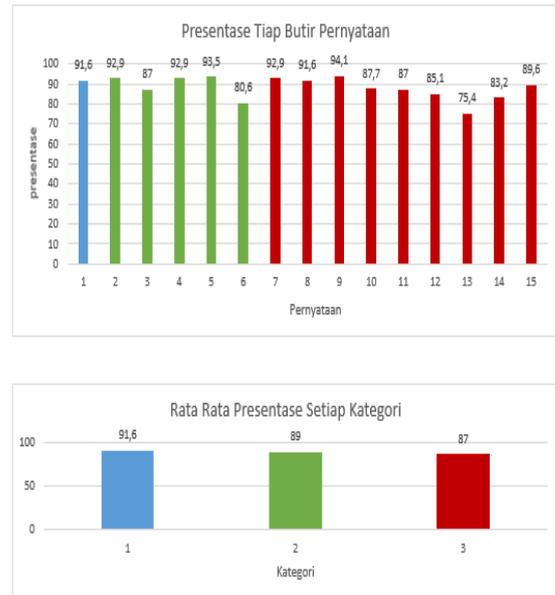


Figure 2 Percentage of Responses

Information:

- : convenience category
- : activity category
- : category of motivation (attractiveness & fun)

5. DISCUSSION

In various studies conducted, all have consistent results, that gamification can make the learning process interesting and can provide strong motivation for students to learn. Based on the results of 31 students’ responses to 15 statements in the response questionnaire, it proves that learning Sociology of Social Cultural Diversity using gamification can create active, interesting and fun learning. In addition, students also find learning easy to understand. Seen in statement number 1 regarding the ease of understanding the material reaches a value of 91%.

This was also expressed by one student during the learning process that gamification made the material easier to understand, “I like learning with gamification, So it’s easy because I learned to discuss with groups and go through fun quizzes, “said the student during the interview. In the second category, activity reached a percentage of 89%. In this category there are 5 items, 2 to 6 statement points. The percentage results show that students feel they play an active role in learning.

Direct involvement that can be felt when students discuss looking for material related to learning and

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