

Analysis of Gamification Forms in the Microteaching Practices of Anthropology Education Students

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Abstract. This research aims to analyze the forms of gamification that students can apply in the microteaching practice of the Anthropology Education Study Program at the Faculty of Social Sciences, Medan State University. This study uses a qualitative method with a descriptive approach, focusing on data collection through observation, interviews, and document review. The data obtained are analyzed descriptively to identify and describe the gamification elements that are appropriate for the microteaching learning context. The research results show that gamification forms that students can be applied to are not limited to digital-based media, such as Kahoot!, Quizizz, Educandy, Wordwall, Educaplay, and Baamboozle, but can also be developed through non-digital approaches, including Scramble, Crossword Puzzles, WordSquare, Talking Stick, and True or False. With interactive activities between teachers and students, gamification creates a more enjoyable and positively competitive learning environment, making microteaching sessions less boring.

Keywords: Gamification, Microteaching, Innovative Learning

1 Introduction

Microteaching is a small-scale teaching practice model designed to help prospective teachers develop their teaching skills in a gradual and systematic manner. In this activity, teachers usually conduct it in a limited setting with a small number of students, for a short duration, and with a focus on specific skills within the learning process. Through microteaching, prospective teacher students can practice designing, implementing, and reflecting on the results of their practice.[1].

Teaching practice makes microteaching an essential component of teacher education programs because it provides students with the opportunity to integrate theory with real-world practice. The importance of microteaching lies in its role as a bridge between the pedagogical knowledge acquired in the classroom and the practical skills required in the field. Students not only practice delivering material, but also hone their communication skills, classroom management, and the use of learning media. Thus, microteaching becomes a vehicle for developing the professional competence of prospective teachers, enabling them to better prepare for the world of work. [2]. To enhance student enthusiasm, creativity, and engagement, microteaching techniques must be continually updated as technology and educational innovation evolve. One relevant innovative approach is the application of gamification. Gamification is the use of game elements, such as points, badges, leaderboards, and challenges, in non-game contexts, including education [3]. The goal is to create a more engaging and healthy competitive learning experience that encourages active student participation.

In the context of microteaching, the application of gamification can strengthen students' motivation to participate, explore various teaching strategies, and enhance their creativity in designing learning experiences. Previous research has shown that gamification can improve student engagement and learning outcomes, both in technology-based and non-technology-based learning environments. Therefore, integrating gamification into microteaching practice is crucial for creating a more interactive, challenging, and enjoyable learning environment, while also preparing future teachers who are adaptable to the dynamics of education in the digital age.

A common obstacle in the world of education is the frequent assumption that engaging learning is learning that uses digital or technology. [4]. Teachers often find it challenging to create enjoyable learning experiences when facilities and infrastructure are limited, which is why they frequently resort to conventional methods during lessons. In this study, students studying anthropological education demonstrated how gamification and the use of both digital and non-digital media can make microteaching activities more engaging. The teacher divided the students into two groups: one using digital-based gamification and the other using non-digital gamification.

2 Method

This research uses a qualitative method with a descriptive approach, focusing on data collection through observation, interviews, and document review. The data obtained were analyzed descriptively to identify and describe the gamification elements suitable for the microteaching learning context. This research is also supported by previous studies that have implemented gamification in the learning process to increase learning interest, motivation, and improve student learning outcomes.

3 Result and Discussion

Gamification is a learning approach that utilizes elements from games to motivate students during the learning process, thereby enhancing their enjoyment and engagement. Additionally, gamification can be used to capture students' interests and inspire them to continue learning. Gamification utilizes game mechanics to provide practical solutions by building interest

(engagement) within a specific group, making students more inclined to pay attention to the learning.[5].

During the microteaching practice process using gamification, the research results indicate that incorporating gamification elements into microteaching practice can create a more engaging, interactive, and challenging learning environment for students. Elements such as points, badges, leaderboards, and scenario-based challenges have been proven to increase students' motivation to participate actively in microteaching activities. With these elements in place, students are encouraged to innovate in designing teaching strategies, utilizing creative learning media, and delivering material in a more varied and engaging manner. Gamification also encourages students to be more daring in trying new learning approaches; students who were previously passive become more enthusiastic about exploring various teaching methods because they feel motivated by healthy competition. This result aligns with the findings of Zainuddin et al. (2020), who stated that gamification can enhance student engagement and learning motivation by providing a more meaningful learning experience[6].

Additionally, the creativity of prospective teacher students develops through challenge-based learning and game narratives. The challenges presented in microteaching encourage students to think critically and find innovative solutions for delivering the material. The game narrative also helps students develop communication skills and connect learning material to a more real-world context. This finding is supported by Subhash & Cudney (2018), who revealed that gamification in higher education contributes to increased creativity and problem-solving skills in students[7] [8].

In the microteaching practice for anthropology education students, the application of gamification is not limited to digital-based media, but can also be done through non-digital media. Here are the forms of gamification that can be applied in microteaching practice and used by students.

3.1 Digital-Based Gamification

This type of gamification utilizes digital devices to introduce game elements into the learning process. This game can be played individually or in groups. Some websites that can be used to support gamification in the learning process are as follows:

3.1.1 Kahoot!

Kahoot! is a game-based learning platform that allows teachers to create interactive quizzes, surveys, or discussions in the form of games. Kahoot was first launched in 2013 in Norway and is now used worldwide, particularly in education, including schools, colleges, and training programs.[9]. Kahoot is designed to make the learning atmosphere more fun, competitive, and collaborative. Typically, students will use their smartphones, tablets, or laptops to answer questions displayed on the main screen (projector or classroom monitor). Kahoot! can be accessed at <https://kahoot.it>. This platform is widely used in the learning process to increase interest in learning[10], learning motivation[11] as well as to improve student learning outcomes[12].

3.1.2 Quizizz

Quizizz is a game-based learning platform that allows teachers/lecturers to create interactive quizzes, practice questions, and formative assessments online. Students can take quizzes live or independently. The advantage of Quizizz is its engaging interface, which incorporates gamification elements such as leaderboards, avatars, memes, music, and power-ups. This makes learning more interactive and less boring. The presence of Quizizz can increase students' learning motivation, which impacts their curiosity[13]. Quizizz can be accessed through <https://quizizz.com>.

3.1.3 Educandy

Educandy is a free application/website for creating simple educational games that teachers/lecturers can use in their lessons. With Educandy, educators can create interactive text-based games (such as words, terms, definitions, or questions and answers) that are then automatically converted into various game formats, including word searches, crosswords, matching games, quizzes, and anagrams. The variety of word games that can be played makes it easier for educators to create varied quizzes, which are effective for reviewing students' understanding and make practice questions more enjoyable[14]. Educandy can be accessed via the web. <https://www.educandy.com>.

3.1.4 Wordwall

Wordwall is a web-based digital platform that enables teachers to create interactive learning activities, including quizzes, games, and worksheet-based exercises. [15]. This platform is popular because it's easy to use, doesn't require programming skills, and the results can be played directly by students online or printed as worksheets. Wordwall can be accessed through: <https://wordwall.net>

3.1.5 Educaplay

Educaplay is a web-based interactive learning platform that enables teachers to create a variety of educational activities online. This platform supports over 20 types of activities, ranging from quizzes and puzzles to crosswords and interactive maps. Educaplay is very popular because it promotes gamification of learning and can be integrated with Learning Management Systems (LMS) such as Moodle, Google Classroom, and Microsoft Teams. This platform offers a variety of interactive games, including quizzes, crosswords, puzzles, word matching, and more. Educaplay provides learning solutions that are not only interactive but also fun, which can pique students' interest in learning due to its user-friendly interface. Additionally, this platform allows teachers to monitor their students' progress in real-time and provide immediate feedback that helps improve learning outcomes.[16]. Educaplay can be accessed through <https://www.educaplay.com>

3.1.6 Baamboozle

Baamboozle is an online educational game platform that utilizes interactive quizzes for both in-class and online learning. Teachers can create quizzes or use thousands of pre-made quizzes, and then students answer directly on their own devices. Unlike Kahoot or Quizizz, which focus more on individual scores, Baamboozle emphasizes team-based play, thus encouraging collaboration and social interaction among students. Baamboozle fosters a competitive spirit among students, which can create positive competition. Furthermore, there are power-up elements that can provide additional points or even reduce points, making the game more exciting and fun.[17]. Using Baamboozle in the learning process can increase student motivation, participation, and learning outcomes.[18]. Baamboozle can be accessed through <https://www.baamboozle.com>

3.2 Gamification Non-Digital

Not all schools or universities have adequate facilities to use technology in the learning process, so teachers often assume that engaging learning depends solely on the use of technology. However, in reality, gamification can be modified by incorporating learning elements into existing games. The forms of gamification that can be used in the learning process without using digital technology are

3.2.1 Scramble

Scramble is a form of educational game used in the learning process by rearranging scrambled pieces of letters, sentences, or concepts. The goal is to train students' critical thinking skills, material comprehension, and creativity in finding the correct answers. In practice, teachers usually prepare the questions in the form of scrambled letters, and then students are asked to rearrange them into the correct words. For social studies lessons, such as the word "nationalism," the letters are scrambled to form "SIANNOILAEM." Students will compete in this game to be the winner, especially if the teacher promises a prize. Scramble can be easily implemented, making it accessible for teachers to use with either PowerPoint or a sheet of paper with scrambled letters. This game can be modified as a learning medium that can increase students' learning motivation and create a fun learning atmosphere.[19].

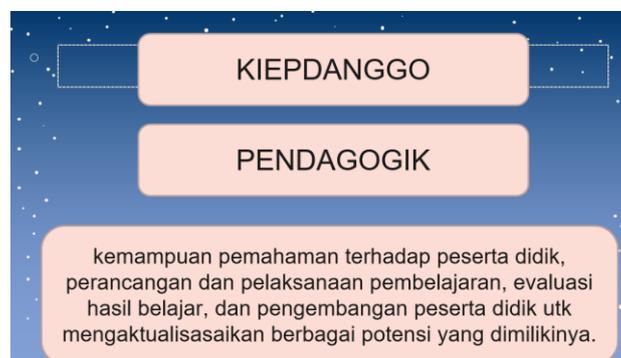
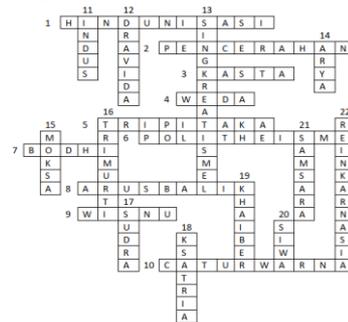


Fig. 1. Example of a Scramble Game

3.2.2 Crossword Puzzles

A crossword puzzle is a word game in which empty squares are filled with letters based on horizontal and vertical clues. The purpose of incorporating crossword puzzles into the learning process is to engage students actively, making the teacher a less central figure in the learning experience. During the process, students actively seek information to find answers independently, so the learning material they acquire is not solely sourced from the teacher's explanations [19]. In the context of social studies learning, crossword puzzles are used as an active learning medium to strengthen understanding of concepts, terms, and important figures related to the material. According to Arsyad (2020), crossword puzzles are an educational game-based learning medium that can improve students' memory because they involve cognitive, visual, and affective activities simultaneously[21]. Teachers can use a whiteboard to create crossword puzzles, either by drawing them directly on the board or by printing them to distribute to groups.



MENDATAR

1. Proses masuknya hindu budha ke Indonesia disebut dengan...
2. Shidarta gautama mendapatkan gelar Budha yang artinya adalah...
3. Sistem pembagian kelas atau status masyarakat hindu disebut dengan sistem...
4. Kitap suci agama hindu adalah...
5. Kitap suci agama budha adalah...
6. Percaya terhadap banyak dewa disebut dengan...

Fig. 2. Example of a crossword puzzle game

3.2.3 Word Square or *Wordsearch Puzzle*

A Word Square or Wordsearch Puzzle is a game where we search for hidden words within a randomly arranged grid of letters, shaped like a square or rectangle. These words can be found horizontally, vertically, or diagonally, with the words to be found predetermined in the game [22]. In learning, Word Squares are used to train students' memory of essential concepts, terms, and definitions by matching questions given by the teacher with answers hidden in a box of letters. This game can also be used to improve vocabulary that was previously considered difficult to remember [23].

S	E	M	A	N	G	A	T	J	A	N	G	A	N	M	E	N	Y	E	R	A	H	Y	M	A
D	F	M	J	D	B	K	D	J	R	K	L	C	G	K	O	L	M	M	E	D	M	A	E	V
V	N	E	A	Y	O	C	A	R	I	L	A	G	I	F	H	J	E	Z	B	H	E	A	N	H
G	H	N	G	I	T	U	A	J	A	F	R	A	N	J	K	T	R	D	B	J	N	E	J	J
R	G	G	N	X	M	E	M	A	H	A	M	I	Z	O	N	K	A	D	O	A	G	Y	E	W
T	Y	U	T	R	Y	A	G	A	I	N	F	I	G	H	T	I	N	G	G	O	G	M	L	M
G	J	R	E	G	H	M	Y	U	K	C	A	N	T	I	K	B	C	V	B	R	A	Z	A	D
H	G	A	N	T	E	N	G	N	O	G	H	J	S	W	M	M	A	D	G	H	M	Z	S	U
G	H	I	M	E	N	G	A	N	A	L	I	S	I	S	T	Y	N	O	T	W	B	X	K	R
B	E	K	N	O	R	A	K	B	A	N	G	E	T	R	G	J	G	Z	J	K	A	S	A	H
Y	U	A	M	X	A	G	Y	I	W	Q	V	H	M	I	K	G	D	A	X	X	R	C	N	C
D	F	N	M	A	G	E	R	R	M	E	N	G	I	D	E	N	T	I	F	I	K	A	S	I
B	A	P	E	R	Y	A	A	G	Y	T	H	J	K	X	Z	V	C	T	I	K	A	T	I	K
M	M	P	E	R	A	M	A	L	K	A	N	R	T	Y	V	T	I	K	S	D	N	S	D	F
T	I	K	M	H	J	F	G	Z	A	D	T	I	K	D	F	G	T	Y	T	I	K	F	G	D

Fig. 3. Example of a word square game

3.2.4 Talking Stick

The Talking Stick is one of the cooperative learning models that utilizes a stick as its primary medium of communication. This stick is passed around to the students. The person holding the stick has the opportunity to answer questions, explain the material, or express their opinion. This method was initially developed from the traditions of Native American tribes, where sticks were used as a symbol to indicate each person's turn to speak. In the context of education, the Talking Stick is used to train students' courage, activity, and cooperation in the learning process. The talking stick can be an alternative learning model that makes learning activities interesting and fun through the game of passing the stick.[24]. By implementing the talking stick learning model, students can engage in high-level learning activities and remain actively involved because they understand the material concepts. Learning is linked to contextual things, and students are encouraged to express their ideas. Through exchanging ideas and collaborating on projects, students have a fun and engaging learning experience. This makes the learning process more meaningful, enabling students to retain better and comprehend the concepts they learn. This is what can improve students' learning outcomes [25].

3.2.5 True or False

True or False is one form of applying simple game elements in learning, based on true or false statement quizzes. In this strategy, the teacher presents statements related to the lesson material, and then students are asked to assess whether each statement is "True" or "False." This game is commonly found on platforms like Kahoot, Quizizz, and others. However, this game can be played only by displaying simple statements in PowerPoint or on a single sheet of paper. Then, students must determine whether the statements are true or false.

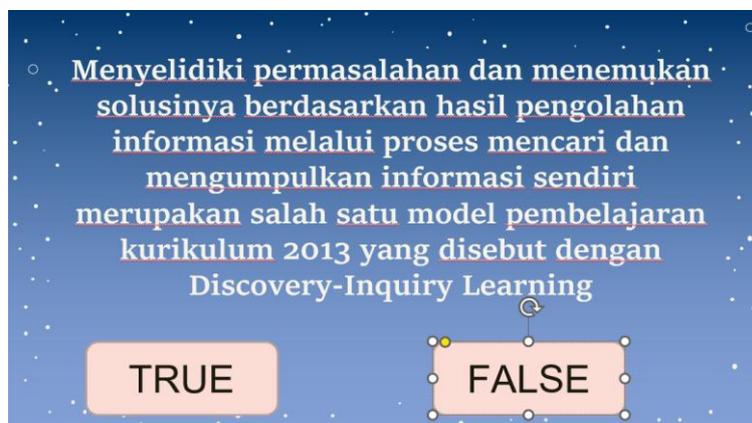


Fig. 4. Example of a true or false game

The above forms of gamification can be applied in learning, tailored to the material being studied. Based on interviews with students after using gamification in microteaching practice, they felt more motivated to participate in the learning process due to the scores and rewards for achieving the highest grades. Students' competitiveness increases, making the teaching and learning environment less boring. Technological limitations are not an obstacle to making the learning environment more engaging; teachers can use blackboards or cardboard for gamification without relying on technology.

4 Conclusion

Gamification, by incorporating elements such as points, badges, leaderboards, challenges, and game narratives, can enhance students' motivation, engagement, and teaching creativity in microteaching activities. The forms of gamification that can be applied are not limited to digital technology-based media, but can also be developed through non-technological approaches. With interactive activities between teachers and students, gamification creates a more enjoyable and positively competitive learning environment. This finding is expected to contribute to innovation in learning in higher education environments, particularly in preparing future teachers who are creative and adaptable to developments in educational technology.

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