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# Media development board game to increase student motivation in studying regional culture

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ABSTRACT

# ARTICLE INFO

## **Article History**

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# Keywords

Board game; Education game; Regional culture Media development as an effort to introduce regional culture is considered essential to do. Technological developments make students' motivation to study culture begin to fade and shift with the emergence of Western civilization. This is motivated by the need for more interesting local culture introduction media for students and regional, cultural, and educational content in online or offline media. Therefore, learning media is needed to introduce regional culture. The objectives of this development research are: (1) Producing culture game education media board game products; (2) Testing and knowing the feasibility of culture game education media board game products; and (3) Knowing the effectiveness of culture game education board game media products in increasing learning motivation on material Sub Theme 2: "The Beauty of My Country's Cultural Diversity" for grade IV Elementary School. The development model used is ADDIE. The results of this development research are: (1) Learning media products, board game culture, and game education; and (2) Based on the validation that has been carried out on material experts and learning media experts, it is stated that the culture game education board game is suitable for use in the learning process and can be implemented for students with a percentage of the validity test of material experts, namely 89% and a percentage of the validity test of learning media experts, namely 98%. The results of the practicality test using the culture game education board game by the teacher obtained a score of 91%, while the trial results related to the percentage of students' motivation to learn culture through this media was 86%. The conclusion is based on the development done; the culture game education board game is declared appropriate when used as a medium to introduce regional culture.



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# **INTRODUCTION**

Education is one of the components of nation-building that transforms the develop 21stcentury learning. The skills developed in 21st-century learning is generally described in 4 classifications: (a) Ways of thinking: Creativity and innovation, problem-solving, critical thinking, learning to learn, and taking decision; (b) How to work: Collaborate and communicate; (c) Working tools: Technology, communication and information skills as well as general knowledge; and (d) Way of life: Career, personal and social responsibility, awareness of competence and culture (Binkley et al., 2012). The teacher as a facilitator has a positive influence in supporting the effectiveness of student learning through the facilities provided to achieve 21st-century skills (Rahmawati & Suryadi, 2019).

Learning motivation can be interpreted as encouragement to carry out learning activities from outside or within individuals to impact the emergence of enthusiasm for learning (Monika & Adman, 2017). Motivation gives a person the will and desire to do something, and if feelings of dislike arise, they will try to avoid them. So, motivation naturally grows within a person but will get stimulation and response from the surrounding environment. According to Slameto (2011), physical, psychological, and fatigue can influence a person's motivation. At the same time, the external factors that influence a person's motivation are family, school, and community. Motivation has two main functions: encouraging students to be active and as a guide (Winarsih, 2009).

One of the efforts to support learning is by preparing a learning plan or instructional science by choosing the learning method to increase student motivation. One form of learning method currently being developed is gamification (Dichev & Dicheva, 2017). Educational gamification is a growing approach to increasing learner motivation and engagement by incorporating game design elements in educational settings. Educational gamification involves transferring game and video game mechanics to the educational field, aiming to seek behavior modification. To create an attractive and exciting didactic experience to increase student motivation, their commitment to learning the subject's content or the enjoyment of the pedagogical tasks themselves always uses motivational elements (Jusuf, 2016).

Using game mechanics can increase the ability to learn new skills by 40%. Educational content that uses game mechanics is interactive, rich in multimedia elements, and interesting (Kiryakova et al., 2018). Gamification combines the elements of game aesthetics, improving the ability to think, motivate, solve problems, and promote learning. Based on observations made on thematic learning in grade 4 of SD Negeri Samir, it is known that the learning method used by teachers at SD Samir is the lecture method, so it does not support 21st-century learning because learning is teacher-centered.

The learning media used are modules and Student Worksheets (LKS), making students less motivated to study thematically. One of the materials that is difficult for students to understand through conventional learning methods is the material for Sub Theme 2: The Beauty of Cultural Diversity in My Country. The variety of material makes it difficult for students to understand the material if the interaction only occurs in one direction. The characteristics of SD Negeri Samir students are that they are quickly bored and find it difficult to understand various materials. Meanwhile, this material is highly urgent to introduce each province's diversity in Indonesia. Students, as heirs to the nation's culture, have an essential role in maintaining and preserving the diversity in Indonesia.

In order to support meaningful learning, it is necessary to change the use of learning methods from conventional methods/lecturing methods to other methods so that students can be directly involved in the learning process: one method that can involve students directly, namely the method of gamification. LearnTech interprets gamification as the process of implementing the parts contained in the game towards activities non-game, which aims to strengthen positive learning behavior for students. The essential gamification elements are points, levels, leaderboards, and avatars (Ariani, 2020). The use of elements in gamification continues to experience development in line with the development of people's taste for gamification games. In addition, gamification has no minimum standard for using elements in a game.

According to, gamification is divided into two types: structural and content. Structural gamification is the implementation of game elements found in the learning material without making a change in implementing the learning material. One example of gamification is the usage platform LMS e-learning, which presents learning through PowerPoint, PDF, and video media with tools other supports in Moodle. Content gamification uses thought patterns and elements in a game on learning material so that exposure to the material resembles a game. The implementation of

content gamification is in the form of learning media designed into various game models. One of the games that is interesting to develop is a board game.

The board game was chosen because it is a game media that can improve children's ability to strategize, solve problems, and think critically (Setyanugrah & Setyadi, 2017). Board games simplify complex problems and systems, making them suitable for students' exploratory power in learning processes and concepts, such as motivation and computational thinking in formal and informal settings (Bayeck, 2020). Board games invite children to play face-to-face to encourage discussions and questions that benefit children's social and socio-emotion (O'neill & Holmes, 2022). Based on market share data, board game is expected to increase by USD 3.02 billion from 2021 to 2026, and market growth conditions, board game experienced an increase in CAGR with a percentage of 7.31%. So, the development opportunities for board games are tremendous (Technavio, 2022).

Research that has been done previously stated that the gamification method has a longerlasting effect on student learning outcomes (Huang et al., 2020). Through method gamification, the level of activeness of students involving themselves in the learning process increases, positively correlated with students' motivation to learn (Buckley & Doyle, 2016). The gamification method can be implemented in various learning media, such as conventional, non-digital, or digital-based learning media, such as applications (Talan et al., 2020).

The novelty of this research is to produce learning media that helps students recognize the cultural diversity in East Java so that engaging media is expected to increase students' motivation in learning about the diversity in East Java province. Therefore, the research objective is media development board game Culture Game Education materi Sub-theme 2: The Beauty of My Country's Cultural Diversity and analyzing its application board game in motivating students to recognize diversity in East Java for grade IV. This research is contributed to increasing the elementary students' motivation in learning regional culture through board game.

## **METHOD**

This research is a type of research Research and Development (R&D). This study initiated the activities with basic research to obtain needs assessment information. Development was done to develop specific products and conduct product effectiveness tests (Purnama, 2016). The research and development model for culture game education learning media uses the ADDIE model. The ADDIE model in this study uses an instructional design system. The systems approach divides the learning planning process into steps in a logical sequence by utilizing the output of each step and input in the next step (Cahyadi, 2019).

ADDIE was chosen because it is a development paradigm designed to use an instructional system that facilitates learning complexity (Rohaeni, 2020). This instructional design is centered on individual learning having immediate and long-term phases, is systematic, and uses a systems approach to knowledge and human learning. The simplicity of the concept ADDIE combined with various drives for inclusivity proved to be effectively used in design and development (Branch, 2009). So, it can be assumed that the developed product can answer needs and problems in the field (Rusdi, 2018). ADDIE model consists of five stages: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation—the stages in the ADDIE model implemented as in Figure 1.

The first stage is analysis; the activities analyze the need for developing teaching materials in learning objectives. The purpose of the analysis phase is to collect supporting data that underlies the creation of culture game education learning media. The analysis is carried out of students' needs, curriculum, and characteristics. The second stage is designed as a media product development process for the board game culture game education. Following are some of the steps taken in the design process, namely: (1) formulating learning objectives, (2) formulating material details, (3) developing assessment tools, and (4) designing media products, board game culture game education.

The third stage is development. Learning media product development stage Board game culture game education based on the validation results that have been carried out by experts and product revision with the development stages that have been carried out, namely as follows: (1)

product creation, (2) media validation carried out by learning media experts and material experts, and (3) revision, namely product improvement based on suggestions, input, and corrections made has been obtained from the results of validation by experts. The fourth stage, namely implementation, is the activity of using the product that has been made. Learning media is applied to students in real situations (usability testing) after being declared valid based on the results of expert validation. The fifth stage is evaluation. Evaluation is an activity carried out to provide an assessment of the development of teaching materials that have previously been made. This stage is carried out by providing formative and summative evaluations.

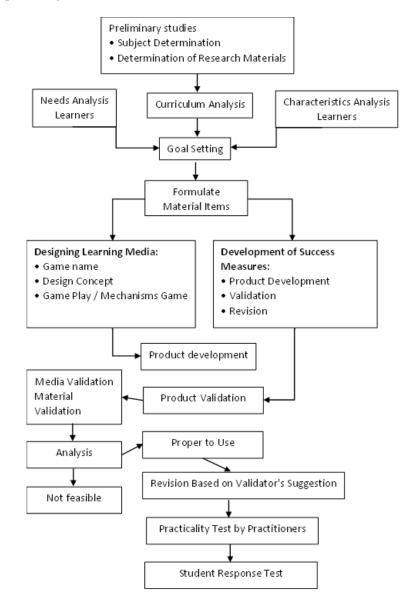


Figure 1. Research Procedure

Source: Modified Research Procedure (Rahmah et al., 2022)

The subjects in this development research were elementary school teacher education lecturers, educational technology lecturers, teachers, and students of SD Negeri Samir in Tulungagung Regency. The research subjects were 14 grade 4 students and grade 4 teachers as field practitioners. The types of data collected are descriptive quantitative and descriptive qualitative. Qualitative data were obtained based on the assessment of learning media's research

and development process in the form of suggestions and criticisms from learning media experts, material experts, and learning practitioners.

The expert and student assessment questionnaires were then analyzed through a quantitative descriptive method. The percentage of the validation questionnaire obtained is calculated using a Likert scale score calculation by Suasapha (2020) in Table 1.

Table	1. Rating Scal	e
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Criteria	Score	
Very Good	4	
Good	3	
Good Enough	2	
Very Not Good	1	

Assessment data were analyzed using qualitative and quantitative descriptive analysis techniques. Quantitative data processing is calculated using a Formula 1 and Formula 2 (Akbar, 2013).

$V-ah = T_{Se}/T_{Sh} \times 100\%$	(1)
$V - pg = T_{Se} / T_{Sh} \times 100\%$	(2)

The description of each formula is: V-ah means expert validation, V-pg means user validation, Tse means total empirical score obtained, and TSh means expected total empirical score.

The percentage of scores that have been obtained are then classified according to the qualifications contained in Table 2. The revision process is carried out during the media product validation process of the board game culture game education by the directions and input given by learning media experts, material experts, and learning practitioners. Products that have obtained valid criteria are then tested, based on the percentage of product feasibility criteria referred to in Table 2.

Table 2. Product Eligibility Percentage Criteria

No.	Achievement Level Product Validation	Product Validation Achievement Level
1	75.01 - 100	Very valid/exciting can be used without revision
2	50.01 - 75.00	Quite valid/interesting, can be used but needs to be revised small scale
3	25.01-50.00	Less valid/engaging, usable but necessary large-scale revision
4	01.00 - 25.00	Invalid/attractive, cannot be used

Source: Modification of (Akbar, 2013)

# **RESULTS AND DISCUSSION**

## Result

Media product development research board game culture game education on class IV thematic learning materials tested at SD Negeri Samir. Several experts validated this research. This research spent 3 (three) months, starting in January with the analysis stage until March 2023 with the following evaluation stages:

## Analysis

The first stage is analysis, which aims to obtain supporting data that forms the basis for making media products, board games, and culture game education. This stage includes:

## Needs Analysis

The first analysis carried out was an analysis of learning media needs. This is based on the fact that the learning media used by teachers are not for the needs of students. Based on the results of observations made by researchers, the following results were obtained: (1) Student motivation in thematic learning is still low. One of these behaviors is characterized by some students who prefer to talk to their peers during learning activities, so they ignore the teacher's explanation. Students need engaging learning media so that they are interested in learning the material presented; (2) The lecture method used by the teacher in learning makes students passive in learning activities. So, students need learning methods that make students active in learning; and (3) The learning media used are less innovative. The teacher's learning media are modules and Student Worksheets (LKS). Students need engaging learning media that involve students directly in the learning process.

# Curriculum Analysis

The curriculum analyzed in this study is the 2013 Curriculum (K13). The essential competencies used in development research are class IV, semester 2, theme 7, and the material for Sub Theme 2: The Beauty of Cultural Diversity in My Country. The details of the essential competencies developed are as follows: (a) IPS - Identify social, economic, cultural, ethnic, and religious diversity in the local province as the identity of the Indonesian nation and its relationship with spatial characteristics; (b) SBdP - Demonstrating regional creative dance moves; (c) PPKn - Presenting various forms of ethnic, social, and cultural diversity in Indonesia, bound by unity and integrity; and (d) Indonesian - Exploring new knowledge contained in the text (Kusumawati, 2013)

# Analysis of Student Characteristics

Based on the data obtained by the researcher, the characteristics of elementary school students who study thematic subjects have been obtained. Familiar characters, namely: (1) Students aged 9-10 years; (2) Learners consist of 9 boys and seven girls; and (3) Students' cognitive level is at the first level, where students can understand knowledge or lessons (knowing). The unique characteristics of students are that students have visual and auditory learning styles.

## Design

The second stage is design, where the author takes several steps to facilitate the writer in developing culture game education learning media products. The following are some of the steps taken in the design stage, namely:

## Formulate Learning Objectives

This learning objective was developed for Sub-Theme 2 material: "The Beauty of Cultural Diversity in My Country," as a reference result of student motivation, which is expected to increase after participating in learning. Based on the competency achievement indicators that have been analyzed previously, they have been reduced to learning objectives. The learning objectives set are: (1) Students can describe the social, economic, cultural, ethnic, and religious diversity in East Java; (2) Students can practice various cultures in East Java; (3) Students can classify the social, economic, cultural, ethnic, and religious diversity the social, economic, cultural area; and (4) Students can identify the differences in every social, economic, cultural, ethnic, and religious diversity that exists in every cultural area in East Java.

## Formulate Material Details

Material preparation is carried out in several stages, including: (1) Identify competency standards and essential competencies; (2) Identify the type of learning material; (3) Determine the material by competency standards; and (4) Choose sources for making teaching materials.

#### Develop Assessment Tool

The tool used to measure success in making this media is a questionnaire that was prepared by considering various aspects, including content feasibility, language feasibility, presentation feasibility, and practicality of use.

# **Designing Culture Game Education Learning Media**

At this stage, the researcher designed the culture game education learning media with the following results:

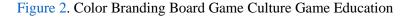
## Name Game

The name of this educational game is culture game education, which comes from English, which means cultural education game. The meaning of this game is the goal to be achieved, namely studying Indonesia's various cultures and diversity, which are discussed in each province.

## **Design Concept**

This board game has several plans for the user interface and environment play. First, the game chooses the color of the palette in Figure 2, which is bright to attract children to use it.





Manufacturing visual style board games made attractive and adapted to trend available. Font The one used is Montserrat.

## Game Play / Game mechanics

The mechanism of this game are: (1) 2-4 people carry out the game with a time limit of 35 minutes or the equivalent of 1 lesson hour. At the beginning of the game, each player is provided with three coins; (2) The game starts by throwing the number of dice by the first player, the number that appears is the step that must be taken; (3) If the player stops at the blue dot, then Players have to take challenge dice and questions. The T/P letter that appears shows the card that the player must take; (4) Players who can answer questions or do challenges will get additional treasure in the form of food, goods, or coins, according to picture; (5) If the player stops at the market, then the player can buy food or goods; (6) If a player gets a food card and goods from the same area, then he can acquire the area; (7) If a player stops in an area acquired by another player, he must pay one coin to the area owner; and (8) If the player stops at the museum, he can take a museum card and view the animated video contained on the museum card by scanning a QR code.

## Development

The third stage is developing a learning media culture Game Education based on expert validation and product revision results. The following are the development steps that have been carried out:

## Product Development

There are several stages in developing media products, game Culture, and Game Education. The first stage is designing the board game culture game education. Culture game education is a classic board game with several players 2-4, so it can be categorized as a multiplayer elimination game if viewed from the manufacturer's purpose, including in educational board games. Components found in a setboard game: (1) A paper board with a size of 40 x 35 cm as a game area;

(2) A guidebook containing game procedures, instructions for implementing challenges, and instructions for answering question cards; and (3) Complementary components of the game are 40 coins, four pawns to represent players, 1 number dice, 1 TP dice, 30 food cards, 30 item cards, four museum cards, 15 question cards, and 15 challenge cards.

The second stage is the adjustment of the design style. The design style used in the design of the board game culture game education is adjusted based on the results of research that has been carried out on the target audience. The colors chosen are bright, attractive image illustrations, interesting video concepts, straightforward typography, and attractive decorative.

The third stage is designing the concept and content of board game culture game education. Students are invited to tour East Java and get to know the various diversity that exists in East Java. East Java consists of 4 major cultural areas: Matraman, Pandalungan, Arek, and Madura. Students can see various non-object cultures through animated videos when they stop at museum points. Through the question cards, students are invited to learn about social, economic, cultural, ethnic, and religious diversity and carry out various social practices related to this diversity. It takes one month to make this learning media product, from January to March 2023. The following Figure 3 shows the culture game education learning media that has been made.



Figure 3. Display Board game Culture Game Education

# Validation

The validation stage was carried out by learning media experts and material experts. The validation phase uses instruments that have previously been designed at the design stage. The data obtained at the validation stage are qualitative in the form of comments, suggestions, and input, which are used as the basis for improving the learning media being developed. At this stage, the researcher also obtained quantitative data based on the score calculation data to assess the validity of the learning media being tested. Based on the validation activities that have been carried out, the following results are obtained learning media experts were validated by a Lecturer in Educational Technology at the Universitas Negeri Malang. The validation stage was carried out on February 20, 2023. The results of the validation of the media aspect assessment are presented in Table 3 (Modification from (Febrianti et al., 2021)).

No.	Assessment Aspects	Score	
1	Media component board game culture game education	20	
2	Display organization	16	
3	Interactivity	8	
4	Overall evaluation	11	
Total S	core	55	
Percen	tage	98	

Table 3.	Aspect of	Assessment
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The result of recapitulation of the validation of learning media by expert got some comments. Some of them are suggestion about the media sets and identify of the developer. Overall, the comment about the learning media is generally good. The result can be shown in Table 4.

Table 4.	Recapitulation	of Oualit	ative Data	Validation	Results of	Learning	Media Ext	perts

Aspect	Comment
Suggestion	1. Media sets can be stored in functional containers/packaging
	2. Complete with the identity of the developer
General Opinion	-
General Conclusion	Generally good

After that, Elementary School Teacher Education Lecturers at the Universitas Negeri Malang carried out material expert validation. The validation stages were carried out on February 10, 2023. The validation results by material experts Modification from (Februarti et al., 2021) are presented in Table 5.

No.	Assessment Aspects	Score	
1	Content Eligibility	21	
2	Language	11	
3	Visualization	7	
4	Evaluation Question	11	
Total Score		50	
Percentage		89	

Table 5. Material Expert Validation Result Data

Table 6. Recapitulation of Qualitative Data Results of Material Expert Validat
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Aspect	Comment
Suggestion	1. QR code must be considered again because it can hinder teaching and learning
	activities.
	2. Provide a special place for the card
General Opinion	Culture game education is good and allows for small groups of elementary students.
General	It can be used as well as further developed according to the suggestions that have
Conclusion	been given.

The results obtained through the validation process state that the culture game education board game has a validity level percentage of the media validator, namely 98%, and the material validator, namely 89%, so it can be stated that this development product is feasible to be implemented to students without revision.

# Implementation

The fourth stage is implementation. After media products, the board game culture game education goes through the development and revision stages based on expert advice and comments. The next step is product implementation. At the implementation stage, media products board game revised culture game education is implemented for students. The implementation involved class teachers as field practitioners and 14 fourth-grade students at SD Negeri Samir. Students were asked to respond through a written questionnaire that had been distributed about the use of culture game education Media

Samir State Elementary School teachers carried out practicality tests by practitioners. Practitioners' assessment is an essential reference to see the practicality of using culture game education learning media. The practicality of test results by practitioners (Rahmah et al., 2022) is explained in Table 7.

No.	Aspects of Assessment	Score
1	Appropriateness of the time available in learning with the ease of operating learning media	4
2	Media learning ability as a tool to achieve learning indicators/objectives	3
3	Students' interest in learning by utilizing the developed learning media	4
4	The ability to learn media that will be used repeatedly according to the learning material	4
5	Media learning ability to create a sense of fun for students	4
6	Media learning ability in creating student learning motivation	3
7	The ability to learn media helps students understand information	3
8	The ability of learning media to spur the creativity of students	4
9	Media learning ability as a learning stimulus for students	4
10	The suitability of learning media as a learning resource	4
Total Score		37
Percentage		92

# Table 7. Practicality Test Result Data by Learning Practitioners

Table 8. Qualitative Data Summary of Practical Assessment by Field Practitioners

Aspect	Comment
Critics	The map used by "culture game education" should be more prominent so that every child can play.
Suggestion	Print the "culture game education" map in large size.

Student response trials were carried out by distributing questionnaires to 14 grade 4 students who had used culture game education media. The following Table 9 is a recapitulation of student trial data. The criteria of each item are: 1 means strongly disagree, 2 means disagree, 3 means agree, and 4 means strongly agree.

No.	Statement Sentence	Evaluation				<b>D</b> (
		1	2	3	4	- Percentage
1	I am interested in learning to use board game media.		1	7	6	84
2	I am happy to be able to learn to use board game media.			8	6	86
3	I can explain about the material contained in the media	2	1	8	3	71
4	I got instructions for using the media	1	1	5	7	82
5	Board game media can increase my understanding of studying cultural diversity in East Java	1		3	10	89
6	The application of board game media helps me make it easier to learn about cultural diversity in East Java	1	2	7	4	75
7	Using board game media makes me passionate about studying cultural diversity in East Java.		1	3	10	91
8	The learning atmosphere in the classroom becomes more fun through the use of board game media	1	2	6	5	77
9	Using board game media has increased my motivation to study cultural diversity in East Java.			8	6	86
10	I am active in following the lessons in class using board game media	1		7	6	82
Total Score		7	16	186	252	461
Percentage						82

# Table 9. Recapitulation of Student Trial Data

# Evaluation

The fifth stage carried out in this development research is evaluation. The evaluation is based on data from the test results of 14 students at SD Negeri Samir in Tulungagung Regency. Based on these data, the level of practicality of board game media for learning practitioners is 92%, and the level of practicality of products for students based on trial results is 82%, so the use of board game culture game education media products is considered attractive to be used to introduce various cultures in East Java.

## Discussion

Media product development Board game culture game education aims to introduce diversity in East Java through the thematic subjects of class IV SD theme 7 Sub Theme 2: The Beauty of Cultural Diversity of My Country. Election board game as a learning medium is determined using Dale's Cone of Experience theory or Dale's Cone Experience to provide students with concrete learning experiences (Azhar, 2015). According to Edgar Dale, students can remember what they do up to 90% of the time. Media use board games as concrete learning media to increase students' motivation because they are directly involved in the learning process.

Submitting accurate information through board game media makes it easier for students to receive and manage the information they get. According to constructivist learning theory, Learning through method gamification encourages students to build knowledge and form thinking concepts. This is to implement constructivist learning, namely creating direct interaction between students, paying attention to students' initial conceptions so that they know the correct concept, and changing concepts that previously could be wrong (Johar & Hanum, 2016). Cognitive structures that already exist in students are aligned with new information received so that they can build meaningful learning. The advantages obtained with meaningful learning are that the material will be remembered longer, increase understanding and ease in learning the following material that has an attachment, and the information obtained previously will leave a mark so that it helps the learning process on the following material that has similarities (Hanani, 2020).

Media product development Board game culture game education included in the form of conventional / non-digital board games. The traditional game board was chosen because it can give an impression at first glance and reduce errors in game operations. In addition, players will feel intimacy in the game, get sympathetic responses, increase social interaction, and traditional games can improve one's interpersonal relationships (Fang et al., 2016). Based on the benefits owned in board games conventionally, students can use the media to practice their social skills.

Board game culture game education has been tested through 4 product tests: material validation, learning media validation, learning practitioner trials, and product trials on students. The validation results stated that the material validity level was 89% and the learning media validation level was 98%, so the product board game was declared eligible for use with revision. The results of trials on learning practitioners and students stated that the level of practicality by learning practitioners was 92% and was able to increase student motivation with a percentage of 82%.

Although board game culture game education has been declared valid and feasible, there are some comments and suggestions that further researchers can make to increase the effectiveness of using board games as a medium of cultural recognition. The suggestions given are based on research that researchers have carried out to further research, namely: (1) Develop a media board game introduction to regional culture for other provinces in Indonesia; (2) Making travel and pawn storylines that have different strengths and weaknesses; and (3) Creating a game concept that can involve students in large groups.

## CONCLUSION

Board game culture game education media products are suitable for learning media to introduce East Java regional culture to elementary school students. Board game culture game education media product development can be further developed to be used on a large scale. The revisions obtained from this media's development include adding a development identity to the media and a special place for each component, such as food cards, item cards, question cards, challenge cards, and museum cards. Based on the product validation results, the Board game culture game education media product was declared suitable for use with revisions with a material validation percentage of 89% and a learning media validation percentage of 98%. The results of field trials stated that the practicality percentage of the product carried out to learning practitioners

was 92% and could increase students' motivation to learn culture, namely 82%. It can be stated that the development of Board game culture game education media products has a high level of practicality and is ready to be tested in the field on a large scale to introduce various cultures in East Java with innovative, fun, and exciting media. So that students are motivated to learn about the various cultures in East Java.

# REFERENCES

- Akbar, S. (2013). Instrumen perangkat pembelajaran. Remaja Rosdakarya.
- Ariani, D. (2020). Gamifikasi untuk pembelajaran. Jurnal Pembelajaran Inovatif, 3(2), 144–149. https://doi.org/10.21009/JPI.032.09
- Azhar, A. (2015). Media pembelajaran (Revisi). Raja Grafindo Persada.
- Bayeck, R. Y. (2020). Examining board gameplay and learning: A multidisciplinary review of recent research. Simulation & Gaming, 51(4), 411–431. https://doi.org/10.1177/1046878119901286
- Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012). Defining twenty-first century skills. In Assessment and Teaching of 21st Century Skills (pp. 17–66). Springer Netherlands. https://doi.org/10.1007/978-94-007-2324-5\_2
- Branch, R. M. (2009). Prologue. In *Instructional design: The ADDIE Approach* (pp. 1–20). Springer US. https://doi.org/10.1007/978-0-387-09506-6\_1
- Buckley, P., & Doyle, E. (2016). Gamification and student motivation. *Interactive Learning Environments*, 24(6), 1162–1175. https://doi.org/10.1080/10494820.2014.964263
- Cahyadi, R. A. H. (2019). Pengembangan bahan ajar berbasis ADDIE model. *Halaqa: Islamic Education Journal*, 3(1), 35–42. https://doi.org/10.21070/halaqa.v3i1.2124
- Dichev, C., & Dicheva, D. (2017). Gamifying education: What is known, what is believed and what remains uncertain: A critical review. *International Journal of Educational Technology in Higher Education*, 14(1), 9. https://doi.org/10.1186/s41239-017-0042-5
- Fang, Y.-M., Chen, K.-M., & Huang, Y.-J. (2016). Emotional reactions of different interface formats: Comparing digital and traditional board games. *Advances in Mechanical Engineering*, 8(3), 1–8. https://doi.org/10.1177/1687814016641902
- Febrianti, E., Wahyuningtyas, N., & Ratnawati, N. (2021). Pengembangan multimedia interaktif "SCRIBER" untuk peserta didik sekolah menengah pertama. *Edukasi: Jurnal Pendidikan*, 19(2), 275–289. https://doi.org/10.31571/edukasi.v19i2.3005
- Hanani, N. (2020). Meaningful learning reconstruction for millennial: Facing competition in the information technology era. *IOP Conference Series: Earth and Environmental Science*, 469(1), 1–10. https://doi.org/10.1088/1755-1315/469/1/012107
- Huang, R., Ritzhaupt, A. D., Sommer, M., Zhu, J., Stephen, A., Valle, N., Hampton, J., & Li, J. (2020). The impact of gamification in educational settings on student learning outcomes: A meta-analysis. *Educational Technology Research and Development*, 68(4), 1875–1901. https://doi.org/10.1007/s11423-020-09807-z
- Johar, R., & Hanum, L. (2016). Strategi belajar mengajar. Deepublish.
- Jusuf, H. (2016). Penggunaan gamifikasi dalam proses pembelajaran. Jurnal TICom, 5(1), 1–6. https://www.researchgate.net/profile/Heni-Jusuf/publication/320920734\_Penggunaan\_Gamifikasi\_dalam\_Proses\_Pembelajaran\_Heni \_Jusuf\_Perangkingan\_Usability\_Website\_menggunakan\_Metode\_Multiple\_Criteria\_Decis ion\_Analisys\_Riska\_Hanifah\_Pengaruh\_Adopsi\_ASTRA\_Dealer\_Management\_S/links/5 a02790d0f7e9b68874b0f9f/Penggunaan-Gamifikasi-dalam-Proses-Pembelajaran-Heni-

Jusuf-Perangkingan-Usability-Website-menggunakan-Metode-Multiple-Criteria-Decision-Analisys-Riska-Hanifah-Pengaruh-Adopsi-ASTRA-Dealer-Management-S.pdf#page=5

- Kiryakova, G., Angelova, N., & Yordanova, L. (2018). The potential of augmented reality to transform education into smart education. *TEM Journal*, 7(3), 556–565. https://www.ceeol.com/search/article-detail?id=691039
- Kusumawati, H. (2013). Buku siswa Heny Kusumawati. 2017. Kelas IV tema 7 "Indahnya Keragaman di Negeriku". Tematik terpadu kurikulum 2013. Kemendikbud.
- Monika, M., & Adman, A. (2017). Peran efikasi diri dan motivasi belajar dalam meningkatkan hasil belajar siswa sekolah menengah kejuruan. *Jurnal Pendidikan Manajemen Perkantoran*, 2(2), 219–226. https://doi.org/10.17509/jpm.v2i2.8111
- O'neill, D. K., & Holmes, P. E. (2022). The power of board games for multidomain learning in young children. *American Journal of Play*, 14(1), 58–98. https://eric.ed.gov/?id=EJ1357958
- Purnama, S. (2016). Metode penelitian dan pengembangan (pengenalan untuk mengembangkan produk pembelajaran Bahasa Arab). *LITERASI (Jurnal Ilmu Pendidikan)*, 4(1), 19–32. https://doi.org/10.21927/literasi.2013.4(1).19-32
- Rahmah, H. R. F., Wahyuningtyas, N., Ratnawati, N., Marsida, R., Waladul Mufid, M. K. A., & Ibrahim, M. H. (2022). Development of "ARCIL" media in prehistoric culture materials for junior high school students. *International Journal of Interactive Mobile Technologies* (*IJIM*), 16(22), 176–190. https://doi.org/10.3991/ijim.v16i22.36155
- Rahmawati, M., & Suryadi, E. (2019). Guru sebagai fasilitator dan efektivitas belajar siswa. *Jurnal Pendidikan Manajemen Perkantoran*, 4(1), 49–54. https://doi.org/10.17509/jpm.v4i1.14954
- Rohaeni, S. (2020). Pengembangan sistem pembelajaran dalam implementasi Kurikulum 2013 menggunakan model ADDIE pada anak usia dini. *Instruksional*, 1(2), 122–130. https://doi.org/10.24853/instruksional.1.2.122-130
- Rusdi, M. (2018). Penelitian desain dan pengembangan kependidikan. PT. Raja Grafindo Persada.
- Setyanugrah, F., & Setyadi, D. I. (2017). Perancangan board game sebagai media pembelajaran mitigasi kebakaran untuk anak sekolah dasar usia 8-12 tahun di Surabaya. *Jurnal Sains Dan Seni ITS*, 6(1), 62–68. https://doi.org/10.12962/j23373520.v6i1.22949
- Slameto. (2011). Belajar dan yang mempengaruhinya. Rineka Cipta.
- Suasapha, A. H. (2020). Skala Likert untuk penelitian pariwisata; beberapa catatan untuk menyusunnya dengan baik. JURNAL KEPARIWISATAAN, 19(1), 26–37. https://doi.org/10.52352/jpar.v19i1.407
- Talan, T., Doğan, Y., & Batdı, V. (2020). Efficiency of digital and non-digital educational games: A comparative meta-analysis and a meta-thematic analysis. Journal of Research on Technology in Education, 52(4), 474–514. https://doi.org/10.1080/15391523.2020.1743798
- Technavio. (2022). Board games market by product, distribution channel, and geography -Forecast and analysis 2023-2027. https://www.technavio.com/report/board-games-marketindustryanalysis?utm\_source=prnewswire&utm\_medium=pressrelease+&utm\_campaign=newn2\_r ep1\_wk03\_2023\_007&utm\_content=IRTNTR40559

Winarsih, V. (2009). Psikologi pendidikan. Latansa Pers.