

Feasibility Test Of A Gamification-Based Fashion Adventure Board Game As A Learning Media For Basic Fashion Design**Uji Kelayakan Permainan Papan Petualangan Mode Berbasis Gamifikasi Sebagai Media Pembelajaran untuk Desain Mode Dasar****Desi Fitrianita¹, Sri Endah Wahyuningsih²**Fashion Design Education Program, Faculty of Engineering, Semarang State University
Semarang, Central Java^{1,2}Email: ¹desifitrianita75@Students.unnes.ac.id, ²s.endah32@mail.unnes.ac.id

*Corresponding Author

Received : 15 November 2025, Revised : 20 December 2025, Accepted : 28 January 2026

ABSTRACT

This study aims to develop and test the feasibility of a gamification-based Fashion Adventure board game for the Basic Fashion Design subject in the 2025/2026 academic year, targeting 10th-grade students at SMK Bina Nusantara Ungaran. This study employed a Research and Development (R&D) method with the ADDIE development model, which includes analysis, design, development, implementation, and evaluation stages. The implementation and evaluation stages were not fully implemented because the research focused on testing the media's feasibility during the development stage. The research subjects consisted of media experts, material experts, and 10th-grade students, who served as respondents in the limited trial. Data collection techniques used validation questionnaires from media experts and material experts, as well as student response questionnaires. Data were analyzed using descriptive quantitative methods, including calculating the percentage of feasibility and user responses. The results showed that the Fashion Adventure board game was categorized as very feasible based on the assessments of media experts and material experts. Furthermore, student responses were categorized as very good, indicating that the media was considered engaging, easy to use, and helpful in helping students understand the style and look of material in fashion design. Therefore, the Fashion Adventure board game is suitable for use as a learning support medium during the development stage.

Keywords: Board Games, Gamification, Learning Media, Fashion Design, Vocational High School**ABSTRAK**

Penelitian ini bertujuan untuk mengembangkan dan menguji kelayakan permainan papan Fashion Adventure berbasis gamifikasi untuk mata pelajaran Desain Busana Dasar tahun ajaran 2025/2026, yang ditargetkan untuk siswa kelas 10 di SMK Bina Nusantara Ungaran. Penelitian ini menggunakan metode Penelitian dan Pengembangan (R&D) dengan model pengembangan ADDIE, yang meliputi tahap analisis, desain, pengembangan, implementasi, dan evaluasi. Tahap implementasi dan evaluasi tidak sepenuhnya diimplementasikan karena penelitian difokuskan pada pengujian kelayakan media selama tahap pengembangan. Subjek penelitian terdiri dari pakar media, pakar materi, dan siswa kelas 10, yang berperan sebagai responden dalam uji coba terbatas. Teknik pengumpulan data menggunakan kuesioner validasi dari pakar media dan pakar materi, serta kuesioner respons siswa. Data dianalisis menggunakan metode kuantitatif deskriptif, termasuk menghitung persentase kelayakan dan respons pengguna. Hasil menunjukkan bahwa permainan papan Fashion Adventure dikategorikan sangat layak Berdasarkan penilaian para ahli media dan ahli material. Lebih lanjut, tanggapan siswa dikategorikan sebagai sangat baik, menunjukkan bahwa media tersebut dianggap menarik, mudah digunakan, dan membantu siswa memahami gaya dan tampilan material dalam desain fesyen. Oleh karena itu, permainan papan Fashion Adventure cocok digunakan sebagai media pendukung pembelajaran selama tahap pengembangan.

Kata kunci: Permainan Papan, Gamifikasi, Media Pembelajaran, Desain Fesyen, Sekolah Menengah Kejuruan

1. Pendahuluan

Vocational High Schools and Vocational Islamic High Schools (SMK/MAK) are forms of vocational education at the secondary level that aim to prepare students to enter the workforce in accordance with their field of expertise. (Ginting et al., 2022) states that in learning, the role of teachers is crucial in optimizing students' potential through innovative strategies, methods, and media. However, the learning media used by teachers is still dominated by textbooks, blackboards, and presentation slides, making learning feel monotonous and discouraging students from exploring creative ideas (Arsini & Kristiantari, 2022).

Gamification in the context of education is an innovative learning strategy that integrates game elements, such as points, badges, challenges, and leaderboards, with the aim of increasing student motivation to learn. The implementation of this reward system can provide positive stimuli that encourage active student involvement, while fostering a spirit of cooperation and collaborative interaction among students in the learning process (Sinaga, 2024). One form of gamification that is effective and easy to implement in the classroom is board games. Board games are educational games that can cover cognitive, affective, and psychomotor aspects and encourage social interaction, cooperation, and creative decision-making (Aini, 2024); (Timur et al., 2025). Fashion adventure board games are board games that use cards, pawns, and boards containing certain boxes or paths that are played in turns. In the context of fashion design learning, board games can be used to hone students' abilities in combining colors, patterns, and clothing shapes in a fun way.

Several studies support the effectiveness of board games as a learning medium (Lestari et al., 2024), showing that board games can increase student engagement because each player's actions affect the outcome of the game, making the game dynamic and not monotonous. Another study by Choirudin et al. (2024) also confirms that the attractive visuals and interactive mechanisms in board games increase motivation and learning experiences. Andarini & Damayanti (2024) show that the *Jenga Board Game* medium can increase elementary school students' interest and effectiveness in writing descriptive texts because the presentation of the material becomes more concrete and enjoyable. Meanwhile, (Sari & Rachmadyanti, 2025) found that the *NARJI* board game in IPAS learning not only improves students' understanding of environmental concepts but also fosters an attitude of caring for the environment through interactive play experiences.

(Szilágyi et al., 2025) emphasized that non-digital games are as effective as digital media in game-based learning and are easier to implement because they do not depend on technology. These findings indicate that board games are a relevant, effective, and appropriate learning medium for vocational learning, including in fashion design learning, which emphasizes creativity, interaction, and direct learning experiences.

The gamification learning model through board games has the potential to create interactive and collaborative learning. However, the development of board games as a medium for fashion design learning, especially for look and style materials in vocational schools, is still limited, and classroom learning tends to be conventional. This condition has an impact on the low level of student engagement in the fashion design learning process and the limitations of the learning media used to support the understanding of the material in an applicable manner.

Based on the problems described above, this study is aimed at developing a gamified Fashion Adventure board game learning medium for fashion design learning, especially for look and style material. This study aims to determine the feasibility of the developed media based on expert assessment of the material, which includes the suitability of the material content with learning competencies, the clarity of the concepts of look and style, and the relevance of the material to the needs of vocational high school students. In addition, this study also assesses the feasibility of the media from the aspect of learning media through expert

assessment of the media, which covering visual design, completeness of game components, clarity of game rules, and ease of use of the Fashion Adventure board game in the learning process.

In addition to expert assessment, this study also aims to determine the response of grade X students at Bina Nusantara Ungaran Vocational School as media users. The students' responses are used to assess the practicality and appeal of the media, particularly in supporting active engagement, learning motivation, and the development of creativity in fashion design. Through the development of the Fashion Adventure board game media, which integrates gamification elements such as challenges, points, and bonus cards, this study is expected to produce learning media that is suitable for use and in line with the characteristics of fashion design learning in vocational schools.

2. Methodology

In this study, the researcher used the research and development (R&D) method with the aim that the resulting product could provide benefits and assist educators in the learning process. Umami et al., (2021) ADDIE is a development model carried out through five main stages, including analysis, design, development, implementation, and evaluation. It aims to produce a gamification- based learning media product in the form of a Fashion Adventure board game and to determine its suitability as a learning media for Fashion Design subjects.

This research was conducted at SMK Bina Nusantara Ungaran, located at Jl. Ki Sarino Mangun Pranoto No. 5 Sisemut, Kec. Ungaran Barat, Kab. Semarang, Central Java. The research was conducted from October to January of the 2025/2026 academic year, starting from the needs analysis stage to product evaluation.

The subjects of this study consisted of two groups. The first group was validators who acted as media experts and material experts. The media expert validators consisted of three people, namely three lecturers, while the material expert validators consisted of three people, namely one lecturer and two teachers from the Fashion Design Program. These validators were tasked with assessing the suitability of the Fashion Adventure board game that had been developed. The second subject group consists of 21 students from class X Phase E of the Fashion Design Program at SMK Bina Nusantara Ungaran, who are divided into several groups as media users in the small-scale trial phase. The object of this study is the level of feasibility of the Fashion Adventure board game learning media based on gamification used in Fashion Design learning, particularly in the material on the introduction to fashion styles and looks.

This study used primary and secondary data as data sources. Primary data was obtained through direct observation of the learning process, interviews with Fashion Design teachers, and the completion of assessment instruments by media experts and subject matter experts. In addition, primary data was also collected through questionnaires on student responses regarding the use of the *Fashion Adventure* board game media. Meanwhile, secondary data was obtained through literature reviews, reviews of previous research results, curriculum analysis, and various sources of literature and scientific journals related to the development of gamification-based and board game-based learning media.

The research instruments used in this study were a media feasibility assessment questionnaire, a material feasibility assessment questionnaire, and a student response questionnaire. Before use, all instruments were first tested for validity and reliability to ensure that the questionnaires were able to measure the aspects being assessed accurately and consistently.

The feasibility assessment criteria were compiled as a reference for assessing the suitability of the material, media design, use of language, and ease of use of the learning media, so that the level of feasibility of the learning media for use in the learning process could be determined.

Data analysis was conducted to answer the research objectives and determine the level of suitability of the learning media produced. The analysis technique used was quantitative descriptive analysis by calculating the scores and percentages of the assessment results from media experts, material experts, and student responses. The validity of the assessment instruments was tested using Aiken's V based on expert assessments, while the reliability of the instrument was tested using the Intraclass Correlation Coefficient (ICC) to determine the consistency of assessments between assessors.

3. Literature Review

1. definition of learning media

The word *media* comes from the Latin word *medius*, which means "focus," "mediator," or "introducer." In Arabic, media means an intermediary or messenger of a message from the sender to the receiver. (Husna & Supriyadi, 2023) state that the term "learning" in English is equivalent to the word *instruction*. Instruction is defined as teaching activities that take place in the context of teacher-student relationships in formal classrooms, but also includes teaching and learning processes that take place without the direct presence of a teacher. Thus, *instruction* emphasizes the learning process itself.

(Fadilah et al., 2023) explain that learning media can be understood as a means in the learning process that functions to convey messages in the form of ideas or concepts, so that it is able to shape the thoughts, interests, and attention of students. In line with this opinion, (Hanannika & Sukartono, 2022) mention that learning media also includes all forms of tools or means that can be used to convey messages in the form of knowledge, skills, and attitudes to students so that they are able to receive, understand, and internalize the meaning of these messages.

2. Definition of board game media

Board games have been known and played in various cultures and civilizations since ancient times. Various findings such as historical sites, artifacts, and documents indicate the existence of these games in the past. One example is Senet, which originated in the pre-dynastic and early dynastic periods of Ancient Egypt around 3500–3100 BC (Almira, A., (2022). Board games are an evolution in gaming that combines various game elements with physical representations and can also be seen as the beginning of the birth of simulation gameplay (Amalia & Mansoor, 2021).

The use of board games in schools contributes significantly to increasing student motivation and participation in learning. (Andarini & Damayanti, 2024) show that the Jenga Board Game medium *can* increase the interest and effectiveness of elementary school students in writing descriptive texts because the presentation of the material becomes more concrete and enjoyable. In addition to supporting cognitive learning, board games also have benefits in developing social and problem-solving skills. Furthermore, research (Prihandoko & Yuniarta, 2021) shows that mathematical board games such as *Labyrinth*.

in the Forest can improve junior high school students' learning outcomes in numbers through game mechanisms that require strategy and precision. Thus, board games not only serve as entertainment but also as pedagogical tools that support students' academic and social development.

3. Definition of gamification

Gamification is an innovative approach in education designed to increase user engagement, motivate learners, and encourage teamwork through the application of game elements in non- game contexts (Fajar Ayu et al., 2024). According to (Suwanto (2021), gamification is not a full-fledged game, but an instructional strategy that uses game mechanics

as a way to make the learning process feel more interactive and enjoyable. In other words, gamification serves as a bridge between traditional learning methods and a more modern and immersive learning experience. (Lestari et al., 2024) shows that board games can increase student engagement because each player's actions affect the outcome of the game, making the game dynamic and not monotonous. Another study by (Choirudin et al., 2024) also confirms that attractive visuals and interactive mechanisms in board games increase motivation and learning experiences.

Gamification in learning is an approach that integrates game elements such as points, challenges, badges, and leaderboards into the learning process to increase student motivation, engagement, and learning experience. (De Carvalho & Coelho, 2022) explain that gamification and game-based learning can simultaneously influence cognitive, affective, and psychomotor aspects because learners are actively involved in the decision-making and problem-solving processes. Furthermore, Dahalan et al. (2024), through a systematic review of vocational education emphasizes that gamification is a relevant strategy in vocational learning because it is in line with the characteristics of practice-based and competency-based learning. In the context of vocational schools, the application of gamification has been proven to increase student motivation and participation in learning, especially in learning that requires creativity and applied skills (Rif'ah & Ridwan, 2025). Therefore, game-based gamification, including board games, has an urgency to be applied in fashion design learning to help students understand concepts in a more concrete, interactive, and meaningful way.

The use of game-based learning in education has been proven to have a positive impact on student learning outcomes. Various studies show that integrating games into the learning process can increase motivation, active engagement, and conceptual understanding more effectively than conventional learning (Safitri et al., 2025). A systematic review concluded that game-based learning contributes significantly to improving students' cognitive competencies and skills. Similar results were also found by Solihah, 2023), who stated that game-based learning media and gamification can improve learning outcomes and positive responses from students. These findings confirm that educational games have great potential as an innovative learning strategy to improve learning outcomes.

4. Understanding clothing *style* and *look*

Style is a manifestation of a person's vision and mission in achieving certain goals. Style can be reflected through various aspects, such as spoken language, written language, and physical appearance or movements displayed to others. Each individual has different style characteristics, and not all styles are easily accepted by all segments of society. (Ulina Mahraz et al., 2021) In addition, fashion has various *looks*, including vintage, preppy, bohemian, chic, casual, street, gothic, sporty, fantasy, etc. (Mien Zyahratil Umami & Sindy Aulia Putri, 2023).

4. Results and Discussion

1. Results

The development of the *Fashion Adventure* board game as a learning medium in this study was based on the ADDIE model, which consists of five stages: analysis, design, development, implementation, and evaluation, carried out in a step-by-step and structured manner.

1.4 Analyze (Analysis)

The analysis stage is the initial step in the development of learning media.

Analysis activities include analyzing the initial learning conditions and analyzing student needs.

1. Analysis of Initial Learning Conditions

An analysis of the initial learning conditions was conducted through interviews with subject

teachers and the distribution of questionnaires to students as a preliminary survey for the development of board games. The interview results showed that learning media for fashion design in the areas of style and look were not yet specifically available. As many as 88.2% of 10th-grade students at SMK Bina Nusantara stated that they still had difficulty understanding the basic fashion design learning material. In addition, the use of conventional learning media caused 70.6% of students to have difficulty visualizing fashion designs, and 76.5% of students responded that the existing media was still limited and not varied. These analysis results show that students experienced obstacles in following fashion design lessons with the learning resources that had been used previously, so interactive learning media were needed to support student understanding.

2. Student Needs Analysis

A student needs analysis was conducted through the distribution of a needs questionnaire as a preliminary survey for the development of the Fashion Adventure board game. The analysis was based on student characteristics in the use of learning media. The questionnaire results showed that 85% of students found it easier to understand the material through real media, 90% of students expressed interest in interactive media, and 80% of students stated that they understood the material more quickly if the learning media was relevant to the learning context. It was concluded that gamification-based interactive learning media were needed to support the fashion design learning process.

4.2 Design

The design stage was carried out by designing the material framework and product design of the Fashion Adventure board game learning media based on gamification, using teaching materials and reference books. The stages in the design phase included:

1. Determining Learning Objectives:

Learning objectives are set to help students understand the basic concepts of fashion design, particularly the elements of look and style, in a contextual and practical manner through board games.

2. Designing Learning Media in Accordance with the Material

a. Designing the Game Flow

The game flow is designed systematically, starting from game preparation, group division, style division, and the playing turn mechanism. Each player takes turns according to the rules and takes cards based on the squares they pass. The game flow is designed to be simple so that it is easy to understand and effective to use during learning time.

b. Board Game Design

The material on the Fashion Adventure board game focuses on style and look in the Fashion Design Fundamentals subject. The game board measures 40 cm x 40 cm and is designed using the Ibis Paint X and Canva applications, adapting the concept of a monopoly game board.



Figure 4.1 Fashion Adventure board game

c. Design of the Fashion Adventure Board Game Packaging

The packaging for the Fashion Adventure board game learning material measures 25 cm × 25 cm. Made from hardbox material, it features an attractive color design. The packaging is used to store the Fashion Adventure board game learning material.



Figure 4.2 Fashion Adventure Board Game Packaging

d. Design of the Fashion Adventure Board Game Cards

The game cards were designed by arranging several types of cards with different functions in the Fashion Adventure board game, namely inspiration cards containing clothing items, color cards to determine design color choices, challenge cards containing instructions or tasks for players, and bonus cards that give Additional benefits in the game. All cards are designed using 260 gsm paper measuring 6.7 cm × 9.7 cm.



Figure 4. 3 fashion adventure board game cards

a. Design of the game pieces and dice for the Fashion Adventure board game

The game pieces are designed attractively with animated images of children wearing various types of clothing. The pieces are printed using acrylic, measuring 2 cm wide and 5 cm tall, while the dice are used to play the Fashion Adventure board game.

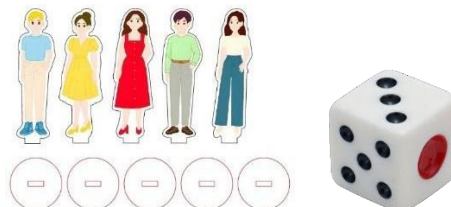


Figure 4.4 Fashion Adventure Board Game Pawns and Dice

b. Designing the Rules and Instructions for Playing

The rules and instructions for playing were designed to provide clear guidance to students in playing the Fashion Adventure board game. The rules of the game are simple and systematic, covering game preparation, division of players or groups, turn order, card distribution, scoring system, and the mechanism for designing outfits based on the cards obtained.



Figure 4.5 Fashion Adventure board game guidebook

c. Designing the Fashion Adventure board game spinner

The spinner is designed by creating a 10 x 10 cm circle and dividing it into 5 colors according to the fashion styles on the cards



Figure 4.6 Spinner for the Fashion Adventure Board Game

e. Assessment Instrument Development

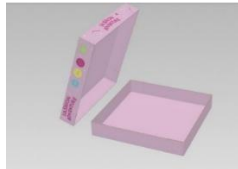
The final stage of the design process involved developing assessment instruments to evaluate the suitability of the *Fashion Adventure* board game media and materials. The instruments included an expert validation questionnaire to assess the appropriateness of the content, clarity, and quality of the media, as well as a student response questionnaire to assess the ease of use, appeal, and benefits of the media in fashion design learning. The questionnaire results are used to improve the media and obtain accurate data on its suitability as a learning medium in vocational schools.

4.3 Development

After completing the conceptual design stage for the product, the next stage is to realize and develop the learning media product. This stage includes several stages, as follows.

1. Production of the Fashion Adventure Board Game

(a) Game board



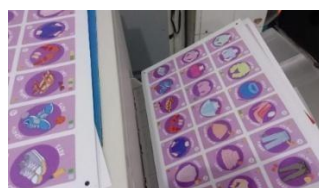
(b) Pawns and dice



(c) Guidebook and materials



(d) Game cards



(e)



Spinner

Figure 4.7 Board game components (a) game board, (b) pawns and dice, (c) materials and guidebook, (d) game cards, (e) spinner

The next stage in the development process of the fashion adventure board game learning media is the instrument validation stage, reliability testing, and validation by subject matter experts and media experts.

2. Instrument Validity Test Results

Table 4.1 Summary of Instrument Validity Test Results

Instrument	Number of items	Aiken's V Range	Category
Material	20	0.6666-1	Medium-High
Medium	20	0.7777-1	Moderate-High

Source: (Researcher Data, 2026)

Based on Table 4.1, Aiken's V value shows that all instrument items are in the valid category, so the instrument is suitable for use.

3. ICC Reliability Test Results

Table 4.2 Summary of ICC Reliability Test Results

Instrument	Number of items	ICC Value	Category
Material	20	0.746	Moderate
Media	20	0.815	Good

Source: (Researcher Data, 2026)

The reliability test results using the ICC method show an Average Measures value of 0.746 for subject matter experts in the moderate category and 0.815 for media experts in the good category, so the instrument is declared reliable and suitable for use in research.

2. Subject Matter Expert Validation

The validation of subject matter experts aims to determine the suitability of the material in the Fashion Adventure board game. This learning media was validated by three subject matter experts who are lecturers and teachers from the Fashion Design Study Program, who are experienced in fashion design learning, as well as vocational school teachers who are relevant to the material on style and look. The material experts were Godham Eko Saputro, S.Sn., M.Ds., Umi Lestari, S.Pd., and Anik Supriyati, S.Pd. The results of the material experts' assessment are presented in the following table.

Table 4.3 Summary of material validation

No	Aspect	Validation Score			Average Score	Percentage	Criteria
		V1	V2	V3			
1.	Alignment of materials with basic basic	15	15	16	15.3	95.6	Very Good
2	Accuracy Material	19	22	23	21.3	88.75	Very Suitable
3	Up-to-date data	16	16	16	16	100	Very Worthy
4.	Encourages curiosity	22	24	24	23.3	97.083%	Very Suitable
Total					75.9		
Average						95.3%	Very Suitable

Source: (Researcher Data, 2026)

3. Media Expert Validation

Expert media validation aims to assess the suitability of the Fashion Adventure board game as a learning medium. The validation was conducted by three lecturers with expertise in the fields of art, design, and learning media, namely Bangkit Sanjaya, S.Pd., M.Sn., Muhammad Nasirul Umam, S.Sn., M.Ds., and Niam Wahzudik, S.Pd., M.Pd. The aspects assessed included the size of the media, media design, and learning media content. The results of the media expert assessment are presented in the following table.

Table 4.4 Summary of media validations

No	Aspect	Validation Score	Average Score	Percentage	Criteria
----	--------	------------------	---------------	------------	----------

		V1	V2	V3			
1.	Media Size Learning	12	11	11	11.3	94.1	Very Suitable
2	Media Design Learning	28	27	26	27	96.4	Very Suitable
3.	Media Content Learning	39	39	39	39	97.5	Very Suitable
Number					77.3		Very
Average						96	Worthy

Source: (Researcher Data, 2026)

4.4 Implementation

1. Fashion Adventure Board Game Trial

The implementation stage was carried out to test the feasibility and response of students to the *Fashion Adventure* board game. The trial was conducted in one meeting on January 12, 2026, through a small-scale trial. Prior to implementation, the researcher consulted with the teacher of the Basic Fashion Design subject for grade X at SMK Bina Nusantara Ungaran to ensure that the board game was in line with the learning objectives.



Figure 4.10 Fashion Adventure board game trial

In the trial, 21 students were divided into five groups. The researcher explained the learning media, how to use them, and the flow of the game, then each group played Fashion Adventure and designed fashion based on the cards they obtained. The winners were determined based on creativity, neatness of design, and the highest card score. After the game was over, the students filled out a response questionnaire as an evaluation of the learning media, and all activities were documented.



Figure 4.11 Questionnaire Completion

2. Feasibility Test

The Fashion Adventure board game, which had been validated by subject matter experts and media experts, was then tested for feasibility to assess the ease of use and student response to the learning media. The feasibility test was conducted on 21 students in

class.

X on January 12, 2026. Students played the Fashion Adventure board game and provided feedback through an online questionnaire (*Google Form*) according to the predetermined assessment criteria.

4.5 Evaluation

The evaluation stage is conducted formatively to assess and refine the developed product. The evaluation is obtained from the results of validation by subject matter experts and media experts in the form of suggestions and input, which are then used as a basis for improving the *Fashion Adventure* board game so that it is suitable for use as a learning medium.

1. Results of subject matter expert assessment.

Table 4.5 Results of subject matter validation assessment

No	Validator	Percentage	Category
1	Anik Supriyati, S. Pd	96.25	Highly Qualified
2	Godham Eko Saputro, S., Sn., M. Ds	90	Highly Meritorious
3	Umi Lestari, S.Pd	100	Highly Suitable

Source: (Researcher Data 2026)

Criticism and suggestions from material validators can be seen in Table 4.4

Table 4.6 Material expert notes

Comments and Suggestions from validator 1	Approved and can proceed without revision
Comments and Validator 2's suggestion	The material presented is quite interesting and relevant to the media used, making the presentation of the material more detailed and focused.
Comments and Validator 3's suggestions	The material used should be realistic and easy to understand
Conclusion	The fashion adventure board game learning media is "suitable for use without revision."

Source: (Researcher data 2026)

Table 4.7 Results of subject matter expert revisions

Before revision	After revision
-	-

Source: (Researcher Data 2026)

2. Media expert assessment results

Table 4.8 Media validation assessment results

No	Validator	Percentage	Category
1	Niam Wahzudik, S.Pd., M.Pd	96.25	Highly Qualified
2	Bangkit Sanjaya, B.Ed., M.Sn	100	Highly Qualified
3	Muhammad Nasirul Umam, S.Sn., M.Ds	96.25	Highly Qualified

Source: (Researcher data 2026)




Criticisms and suggestions can be seen in Table 4.7

Table 4.9 Media Expert Notes

Comments Validator suggestion 1	and	The spinner has been improved by making it neater and the font color more visible
Comments validator 2 suggestions	and	Overall, the learning media is good, and the style of the cards supports the media to be more appealing. However, there are parts that are not yet optimal, such as the spinner, which should be made neater, and the size should be changed
Comments Validator 3's suggestions	and	The learning materials are already quite good, but the spinner should be made more neater
Conclusion		The fashion adventure board game learning media is "suitable for use with revisions."

Source: (Researcher data 2026)

Table 4.10 Results of media expert improvements

Before revision	After revision
	 
The font is not visible, the font size is too small, spinner is not neat	Font is more visible, font size is larger, spinner is neater

Source: (Researcher Data 2026)

3. Fashion adventure board game feasibility test results

Table 4.11 Student Response Questionnaire Results

Questionnaire Results	Test Results
12 students	Very feasible
21 students	Suitable
6 students	Less suitable
1 student	Not eligible
Average	92

Source: (Researcher Data 2026)

From the three research results, it can be interpreted that the fashion adventure board game learning media based on gamification is suitable for use as a supporting medium for basic fashion design learning media on *style* and *look* materials.

2. Discussion

The development of the gamified Fashion Adventure board game learning medium for the Basic Fashion Design subject in Grade X at SMK Bina Nusantara Ungaran was conducted using the ADDIE model, focusing on the analysis, design, and development stages. The research

results show that the developed media received a "highly suitable" rating based on assessments by subject matter experts, media experts, and student responses. This indicates that the Fashion Adventure board game meets the criteria for suitability as a learning medium in terms of content, appearance, and practicality of use in the classroom.

The results of the initial analysis show that students' understanding of fashion *style* and *look* concepts is still low because the learning process mostly uses lecture methods and conventional media. Abstract media make it difficult for students to visualize the characteristics of each style, so their creativity and practical understanding have not developed optimally. This finding is in line with the opinion of Arsini & Kristiantari (2022), who stated that the use of monotonous media can reduce students' interest and activity in learning. Therefore The presence of interactive and contextual learning media is an important requirement in fashion design learning

At the design stage, the Fashion Adventure board game was designed by adapting the concept of Monopoly combined with gamification elements such as challenges, points, bonus cards, and a reward system. The integration of these game elements aims to increase students' motivation, participation, and active involvement during the learning process. These results support the gamification theory proposed by Suwanto (2021) that the application of game elements in learning can create a fun learning atmosphere and encourage students to actively engage in building their own understanding.

Validation by subject matter experts showed a suitability percentage of 96.4% with a rating of "highly suitable." This indicates that the style and look of the material presented in the board game are in line with basic competencies, accurate, up-to-date, and able to stimulate students' curiosity. The suitability of the material with the curriculum and student characteristics is an important factor in ensuring that the learning media truly function as an effective learning support tool. These results are in line with the opinion of Fadilah et al. (2023) that good learning media must be able to convey messages clearly, systematically, and relevantly to the learning objectives.

Meanwhile, the media expert validation results obtained a percentage of 96% with the category "very feasible". This assessment covers aspects of size, visual design, text readability, clarity of illustrations, and overall attractiveness. Although there were suggestions for improvement in the spinner and color contrast, in general, the board game was considered to have attractive, proportional, and easy-to-use visual quality for students. Good visual design plays an important role in attracting students' attention and helping them understand the flow of the game and the material presented (Choirudin et al., 2024).

This study has the advantage of using the complete ADDIE model so that the development of the *Fashion Adventure* board game media was carried out systematically and validated through expert assessment and student responses. This media is effective in increasing student motivation, engagement, and creativity in Fashion Design Fundamentals learning. However, its limitations lie in the limited scope of the trial, the relatively long learning time, and the dependence on the teacher's ability to manage game activities in the classroom.

The pilot test results show that student responses to the use of the Fashion Adventure board game were in the "very feasible" category, with a percentage of 92%. Most students stated that this media was interesting, easy to understand, fun, and helped them learn about various types of fashion styles and looks in a more concrete way. Playing while learning made students more enthusiastic, brave enough to discuss, and able to express their creative ideas in the form of fashion designs. This proves that board games not only function as cognitive aids but also as a means of developing affective and psychomotor aspects, as stated by Andarini & Damayanti (2024).

The application of the Fashion Adventure board game is also in line with constructivist theory, where students build their knowledge through direct experience, social interaction, and problem- solving during the game. Students not only receive information passively, but also actively process, relate, and apply the concepts of style and look into the fashion designs they

create. Thus, learning becomes more meaningful and supports the achievement of creative and collaborative thinking competencies. Overall, the results of this study indicate that the Fashion Adventure board game learning media based on gamification is suitable for use as a supporting medium for learning Basic Fashion Design, especially for style and look material. This media can increase learning motivation, facilitate concept understanding, and create an active, interactive, and enjoyable learning atmosphere. These findings reinforce previous research results, which state that educational board games are effective in increasing student engagement and learning outcomes (Prihandoko & Yuniarta, 2021; Lestari et al., 2024).

Thus, the development of the Fashion Adventure board game not only meets technical feasibility aspects but also has strong pedagogical relevance in supporting vocational learning in the field of fashion design.

5. Conclusion

Based on the results of the research and discussion, it can be concluded that the *Fashion Adventure* board game learning media based on gamification, developed using the ADDIE model for the Basic Fashion Design subject in grade X at SMK Bina Nusantara Ungaran, is deemed highly suitable for use as a learning medium. The results of expert material validation showed a feasibility percentage of 96.4% and media expert validation of 96%, both of which are classified as highly feasible, while the results of limited trials with students received a very positive response with a percentage of 92%, indicating that the media is attractive, easy to use, and helps students understand fashion *style* and *look* material more concretely. However, the suitability of the media in this study is still limited to expert assessment and limited-scale trials, so it has not measured the effectiveness of the media in improving learning outcomes. Therefore, further research is recommended to test the effectiveness of the media on student learning outcomes so that the benefits of using *the Fashion Adventure* board game can be more comprehensively understood.

References

- Aini, L. N. (2024). The Effect Of Game-Based Learning Methods Using Snake And Ladder Board Games On The Reasoning Abilities Of Students In Class Xi At Smk Negeri 6 Surabaya. *Avatara-E Journal Of History Education*, 15(3). <https://ejournal.unesa.ac.id/index.php/Avatara/Article/View/63430/48103>
- Amalia, F., & Mansoor, A. Z. (2021). Study Of Mechanical Gamification As A Variable In Board Game Media Literacy. *Ultimart: Journal Of Visual Communication*, 14(1), 22–34. <https://doi.org/10.31937/Ultimart.V14i1.2020>
- Andarini, M. R., & Damayanti, M. I. (2024). Development Of Jenga Board Game Media For Figurative Language Personification For Learning Writing Skills Text Description Of Fourth Grade Elementary School. *Journal Of Elementary School Teacher Education*, 12(6). <https://ejournal.unesa.ac.id/index.php/Jurnal-Penelitian-Pgsd/Article/View/60997?Utm>
- Arsini, K. R., & Kristiantari, M. G. R. (2022). Word Cards And Picture Cards As Media For Indonesian Vocabulary. *Journal Of Teacher Professional Education*, 5(1), 173–184. <https://doi.org/10.23887/jippg.V5i1.46323>
- Choirudin, Choirudin, Astuti, Puji, & Hazarika, A. (2024). Visual Analysis And Interactivity Of Board Games As An Innovation In Sequence And Series Learning: A Phenomenological Study Of Junior High School Students. *Journal Of Mathematics Education*, 2(3). <https://doi.org/10.61650/dpjp.V2i2.146>
- Dahalan, F., Alias, N., & Shaharom, M. S. N. (2024). Gamification And Game-Based Learning For Vocational Education And Training: A Systematic Literature Review. *Education And Information Technologies*, 29(2), 1279–1317. <https://doi.org/10.1007/S10639-022-11548-W>
- De Carvalho, C. V., & Coelho, A. (2022). Game-Based Learning, Gamification In Education And

- Serious Games. *Computers*, 11(3), 36. <https://doi.org/10.3390/Computers11030036>
- Fadilah, A., Nurzakiyah, K. R., Kanya, N. A., Hidayat, S. P., & Setiawan, U. (2023). *Understanding Media, Objectives, Functions, Benefits, And The Urgency Of Learning Media*. 1(2).
- Fajar Ayu, A., Puspitasari, A., Hidayati, N., & Fitra Andikos, A. (2024). Gamification Learning Model: Improving Student Learning Motivation Through Technology. *Isedu: Islamic Education Journal*, 2(2), 1–5. <https://doi.org/10.59966/Isedu.V2i2.1270>
- Ginting, F. B., Wesnina, W., & Soeprijanto, S. (2022). Development Of Learning Media On Women's Clothing Construction Patterns In The Form Of Interactive Animated Videos. *Journal Of Animation And Games Studies*, 8(1), 1–26. <https://doi.org/10.24821/Jags.V8i1.6176>
- Hanannika, L. K., & Sukartono, S. (2022). Application Of Ict-Based Learning Media In Thematic Learning In Elementary Schools. *Journal Basicedu*, 6(4), 6379–6386. <https://doi.org/10.31004/Basicedu.V6i4.3269>
- Husna, K., & Supriyadi, S. (2023). The Role Of Learning Media Management In Increasing Student Learning Motivation. *Al-Mikraj Journal Of Islamic Studies And Humanities (E-ISSN 2745-4584)*, 4(1), 981–990. <https://doi.org/10.37680/Almikraj.V4i1.4273>
- Lestari, M. Apriyani, Fitriyani, Yeni, Hermawati, Eli, Ramdhania, Rini, Mukti, Ndaru, & Oktaviani, Oktaviani. (2024). Development Of Local Wisdom-Based Board Games In Instilling Global Diversity Characteristics. *Jurnal Pelita Paud*, 8(2), 515–523. <https://doi.org/10.33222/Pelitapaud.V8i2.3810>
- Mien Zyahratil Umami & Sindy Aulia Putri. (2023). Fantasy Look And Exotic Dramatic Style In Ready- To-Wear Clothing With The Addition Of Macrame Decorations. *Garina*, 15(1), 84–100. <https://doi.org/10.69697/Garina.V15i1.28>
- Prihandoko, G. K., & Yuniata, T. N. H. (2021). Development Of The Board Game "Labyrinth In The Forest" For Junior High School Students On Number Concepts. *Jurnal Cendekia: Journal Of Education Mathematics*, 5(1), 578–590. <https://doi.org/10.31004/Cendekia.V5i1.548>
- Rif'ah, H., & Ridwan, M. H. (2025). Indonesian Language: A Qualitative Study At Smk Mukhtar Syafa'at Blokagung. *Journal Of Education Science (Jip)*, 3(3). <https://jip.joln.org/index.php/Pendidikan/Article/View/551/382>
- Safitri, R. R., Rahmania, U. G., Putri, A. F., & Jumadi, J. (2025). The Impact Of Game-Based Learning On Student Competencies In Science: A Systematic Review. *Journal Of Education And Culture*, 10(1), 116–136. <https://doi.org/10.24832/Jpnk.V10i1.5188>
- Sari, N. A. D., & Rachmadyanti, P. (2025). Development Of Narji Board Game Media for IPAS Learning In Grade Vi Elementary School. *Journal Of Elementary School Teacher Education Research*, 13(4). <https://ejournal.unesa.ac.id/index.php/jurnal-penelitian-pgsd/article/view/69477?utm>
- Sinaga, A. V. (2024). Enhancing Learning Motivation Through Gamification: Innovative Strategies In Education. *Pinisi Journal Of Social Science*, 03(2). <https://ojs.unm.ac.id/pjss/article/view/68108/30109>
- Solihah, M. (2023). The Effect Of Android Game-Based Learning Media On Student Learning Outcomes In Terms Of Self-Directed Learning. *Journal Of Educational Chemistry (Jec)*, 5(2), 77–86. <https://doi.org/10.21580/Jec.2023.5.2.21689>
- Suwarto, Prof. Dr. M. P. (2021). Using Quizizz To Improve Language Learning Achievement In Indonesia. *Indonesia. Journal Education*, 30(3), 499–514. <https://doi.org/10.32585/Jp.V30i3.1934>
- Szilágyi, S., Palencsár, E., Körei, A., & Török, Z. (2025). Examining The Effectiveness Of Non-Digital Game-Based Learning Among University Computer Science Students On The Topic Of Improper Integrals. *Education Sciences*, 15(2), 132. <https://doi.org/10.3390/Educsci15020132>

- Timur, J., Madya, J. R., & Anyar, G. (2025). Character Design For Educational Board Game Pieces, Traditional Clothing Traditional In Indonesia. *Journal Computer Computer Graphics*, 18(1). <https://doi.org/10.51903/Pixel.V18i1.2525>
- Ulina Mahraz, E., Suliyanthini, D., & Wesnina, W. (2021). Evaluation Of Teaching Materials For The Fashion Design Module On Style (Fashion Style). *Practice Of Fashion And Textile Education Journal*, 1(2), 62–74. <https://doi.org/10.21009/Pftej.V1i2.26107>
- Umami, R., Rusdi, M., & Kamid, K. (2021). Development Of A Test Instrument To Measure Higher Order Thinking Skills (Hots) Oriented Towards The Programme For International Student Assessment (PISA) In Students. *Jp3m (Journal Of Mathematics Education And Teaching Research)*, 7(1), 57–68. <https://doi.org/10.37058/Jp3m.V7i1.2069>