



Development of Doruma Otoshi Escape Room Media to Train Students' Coping Skills

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Abstract

This study aims to develop the Doruma Otoshi Escape Room as an innovative medium for guidance and counseling to enhance students' coping skills. Employing a Research and Development (R&D) approach, the study adopts the 4D development model, which encompasses the stages of define, design, develop, and disseminate. The effectiveness of the product is examined through a quantitative method using a One Group Pre-test–Post-test Design. The research subjects include a material expert, a media expert, and students selected through purposive sampling. Data collection is conducted using coping skill questionnaires administered before and after the intervention, along with expert validation sheets. The data are analyzed through feasibility percentages, validity and reliability testing of instruments, gain score calculations, and Paired Sample t-tests. The expected outcome of this research is the establishment of a valid, feasible, and effective Doruma Otoshi Escape Room medium that significantly improves students' coping skills.

INTRODUCTION

Coping skills are fundamental abilities students need to possess because they help them cope with academic demands, social pressures, and emotional challenges (Au-Yeung et al., 2023; Çakmak & Kaymaz, 2024; Spahl et al., 2024). Ideally, high school students are expected to be able to manage stress effectively, solve problems independently, collaborate with peers, and regulate their emotions when faced with the demands of learning and daily life (Ferreira, 2012; Freeland et al., 2022; Garbóczy et al., 2021; Ghaffari et al., 2021). However, in reality, many students exhibit weak coping skills; they easily become anxious, confused when faced with problems, have difficulty controlling their emotions, and rely on others for help when faced with stressful situations.

This condition aligns with findings that personal stressors such as academic uncertainty, excessive workload, limited social interaction, and interpersonal conflict are significant triggers for psychological difficulties in students (Padrón et al., 2021). Furthermore, both short-term and long-term stressors have been shown to significantly impact students' coping capacity; when coping is ineffective, students are more susceptible to emotional distress and even maladaptive thoughts (Hakima & Hidayati, 2020; Okechukwu et al., 2022).

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Other research shows that times of crisis, such as the COVID-19 pandemic, exacerbate anxiety, depression, and stress levels in adolescents due to changes in learning, loss of routine, and reduced social interaction, making the need for strong coping skills even more pressing (Okechukwu et al., 2022; Waters et al., 2021). Furthermore, adaptive coping skills such as positive reframing, planning, and seeking help have been shown to protect students from negative psychological impacts, while maladaptive coping, such as avoiding problems, self-criticism, or escaping through fantasy, actually worsens emotional conditions and increases the risk of psychological disorders (Okechukwu et al., 2022; Padrón et al., 2021). Research Sahputra et al., (2025) indicates that good coping skills help maintain mental health.

Weak coping skills can also disrupt students' psychosocial functioning, causing them to lose emotional control, withdraw from social settings, experience decreased learning motivation, and struggle to maintain adaptive behavior (Okechukwu et al., 2022; Vatansever et al., 2021). These findings confirm that underdeveloped coping skills are a key factor making high school students vulnerable to various pressures in their academic and social lives.

On the other hand, guidance and counseling services in schools generally still use verbal or conventional approaches, such as lectures, counseling, and face-to-face counseling. These approaches are considered ineffective in providing students with direct experience in practicing real-life coping strategies. Teori Experiential Learning Kolb's theory explains that learning will be more meaningful when students go through a series of concrete experiences, reflect, build conceptual understanding, and then apply it in real situations. Waters et al., (2021) shows that positive education successfully teaches coping skills, emotional regulation, and cognitive reframing when students are dynamically involved in the learning process, not just verbal delivery.

Furthermore, Cheng & Chau, (2022) emphasize the importance of a hands-on, interactive, and enjoyable learning approach, both playful and experiential, proven to encourage increased cognitive flexibility, collaboration, problem-solving skills, and team effectiveness. A playful learning environment helps participants think outside the box, express ideas freely, and gain understanding through direct experience. Therefore, an experiential approach has a significant impact on the development of social-emotional and coping skills.

Similarly, Kowal et al., (2021) demonstrated that immersive game-based environments can provide a safe space for adolescents to explore emotions, improve emotional regulation, and hone their cognitive functions through active interaction. Certain commercial videos have even been shown to improve mood, social skills, and overall mental health. This means that game-based media has great potential as a means to stimulate active engagement, intrinsic motivation, and more meaningful coping practices.

Thus, various findings indicate that interactive, experiential learning approaches or interventions involving game elements are more effective in strengthening students' coping skills than conventional verbal approaches. This suggests the need for guidance and counseling services within educational institutions to develop new strategies and media oriented toward concrete experiences, allowing students to actively practice, experience, and apply coping skills in contexts that resemble real life.

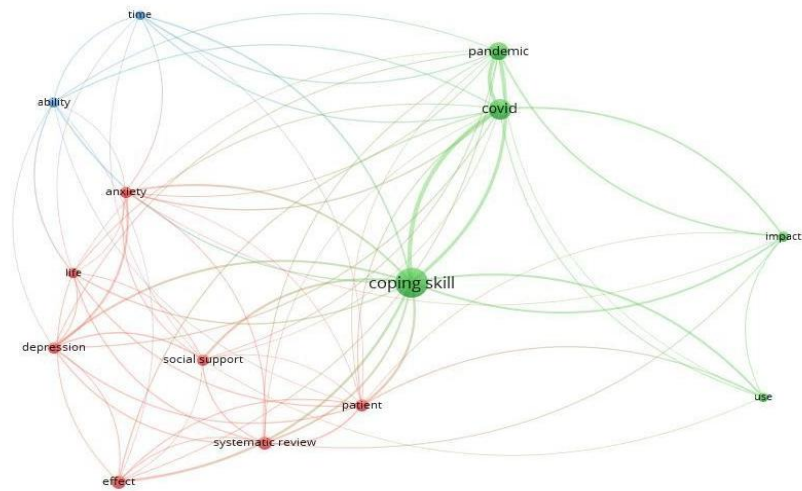


Fig 1. VOSviewer analysis based on coping skills keyword

Bibliometric analysis using VOSviewer shows that the keyword "coping skills" appears dominant and is strongly associated with mental health issues such as anxiety, depression, and stress, particularly increasing in the post-pandemic period. However, the research map also reveals a research gap: there are still few studies developing interactive, physical game-based learning media to train coping skills. Various relevant journals indicate that research on coping skills still focuses on surveys, counseling, and digital interventions, as well as the use of escape rooms for cognitive learning, rather than improving coping abilities.

Based on these conditions, innovative media are needed that can provide real, engaging, and interactive experiences for students in facing challenging situations. One creative solution that is considered appropriate is the Daruma Otoshi Escape Room, which combines the traditional game of Daruma Otoshi with the challenges of an escape room. Previous research [Purnama & Pujihartati, \(2024\)](#) showed that traditional games, such as Daruma Otoshi, contain humanitarian values reflected in the agreed-upon rules. In addition to providing physical benefits, these games can also contribute to the development of children's emotional, social, motor, and intellectual aspects. These findings emphasize the importance of introducing and preserving traditional games in shaping children's character, especially in terms of cooperation and social values. Research [Çakmak & Kaymaz, \(2024\)](#) revealed that traditional Japanese games, including Daruma Otoshi, can improve cognitive abilities, fine motor skills, and creativity. Therefore, by combining elements of these traditional games in an escape room format, this medium is expected to train students' coping skills.

This study aims to develop the Daruma Otoshi Escape Room media that can be used as an intervention in training students' coping skills at school. In addition, this study also aims to identify the need for the development of the Daruma Otoshi Escape Room media as a foundation for designing media based on the conditions and characteristics of students; to find out the prototype of the Daruma Otoshi Escape Room media developed to train students' coping skills; and to determine the feasibility and practicality of the Daruma Otoshi Escape Room media in guidance and counseling services. This study is important practically because it presents an interactive, interesting, and experience-based BK media, and is also important theoretically because it can strengthen studies on Experiential Learning, Transactional Model of Stress and Coping, and Coping Flexibility in the context of BK services in schools.

METHODS

This study applies a mixed-method approach (Mixed Method) of limited Research and Development (R&D) type by integrating quantitative and qualitative data. The data requirements for qualitative data are to explore student needs, obtain information from guidance and counseling teachers, and collect criticism, responses, and recommendations from validators regarding the developed media. While quantitative data is implemented to measure the level of feasibility, practicality, and student response to the development of the Daruma Otoshi Escape Room media in training students' coping skills. The purpose of choosing R&D is because it is directed to describe the problem, produce a product in the form of guidance and counseling service media, which is then tested for quality. And the development model applied in this study is ADDIE, which includes five systematic stages, namely analysis, design, development, implementation, and evaluation. The ADDIE model was chosen because it provides a structured media development flow, starting from mapping needs to assessment of the final product (Aryasutha et al., 2025; Efendi et al., 2026; Engkizar et al., 2025; 2026; Spahl et al., 2024; Ulujami Roheti et al., 2025).

In the Analyze stage, the researcher implemented needs identification through field observations, distribution of coping skill questionnaires to students, and interviews with guidance counselors to determine the initial conditions of students and aspects of coping skills that are still weak, as well as an overview to determine students' needs regarding the Daruma Otoshi Escape Room media to train coping skills. Then, in the Design stage, the initial design of the Daruma Otoshi Escape Room media was prepared, including the objectives of the game, rules, activity flow, usage steps, materials and tools, and product revisions based on validator suggestions. The Development stage was carried out after the previous stage was completed. Then, the next stage included an assessment process by material experts and media experts to test the level of feasibility of the developed product, namely content, appearance, materials, and game mechanisms. The validation results were used as the basis for revising the product. In the Implementation stage, the refined product was then tested through practicality testing and user practicality responses by guidance counselors and student response testing to the media development in training students' coping skills. The final stage was Evaluation, which was a final evaluation of the product by ensuring that all validator input had been implemented so that the resulting media was truly ready for use in guidance and counseling services.

The data for this research comes from two main categories, namely primary data and secondary data. Primary data sources were obtained directly through informants and research respondents, namely students, guidance counselors, material experts, and media experts. Students were the main data source in the needs analysis, guidance counselors were informants in interviews as well as practitioners in the practicality test, and product validators were material validators and media validators. The secondary data sources came from research documents, validation results, product revision results, guidebooks, and documentation of research implementation. The research subjects in the needs analysis stage were 59 students of MAS Al-Asy'ariyah. Furthermore, the validation stage involved a material validator and a media validator, while the practical feasibility stage involved 1 guidance counselor, and the student response stage towards the daruma otoshi escape room media to train students' coping skills involved 12 grade XI Social science students of MAS Al-Asy'ariyah.

The research instruments used included questionnaires, interviews, and documentation. The questionnaires were used for analysis of students' coping skills needs, validation by material experts, validation by media experts, practicality tests by guidance counselors, and student responses to training student coping skills. The questionnaire instrument refers to a rating scale of 1–4, namely strongly disagree, disagree, agree, and strongly agree. Interviews were used to obtain more in-depth information from guidance counselors regarding the condition of students' coping skills, the need for guidance counseling services, and the urgency of media development. Documentation was used to record validation results, the revision process, and product trial results during the research. Thus, this study utilized instruments designed to support comprehensive data collection on aspects of needs, product quality, and the impact of media use on students.

The research data are grouped into two types: qualitative and quantitative. Qualitative data include interview results, responses, improvement notes, and recommendations provided by the guidance counselor and validators regarding the developed media. Quantitative data include needs mapping questionnaire scores, assessment results of the material and media validators, the level of practicality based on the guidance counselor's evaluation, and student responses after participating in activities to develop coping skills. The research data were analyzed using two approaches: qualitative and quantitative analysis. Qualitative data were analyzed descriptively to explain student needs, refine the media design, and interpret the validators' input. Meanwhile, quantitative data were processed in percentage form to identify the level of feasibility and practicality of the media, as well as to describe student responses to its use in training coping skills. Thus, the analysis method used has been adjusted to the data characteristics and research objectives, thus providing a complete picture of the quality of the Daruma Otoshi Escape Room media in training students' coping skills.



Fig 2. Research implementation procedures

RESULT AND DISCUSSION

Analyze Level

In the first stage, the analysis was conducted by identifying problems that occur in the field related to high school students' coping skills through direct observation by the researcher. Next, a needs analysis study was conducted to examine the condition of students' coping skills, covering aspects of coping skills such as coping dimensions that include problem-focused coping strategies,

emotional response management (emotion-focused coping), and the ability to flexibly adjust strategies according to the demands of the situation (coping flexibility), accompanied by stress management, collaboration, and communication. In addition, the theoretical study also includes theories that serve as the basis for developing coping skills, namely Experiential Learning Theory, Transactional Model of Stress and Coping, and Coping Flexibility Model. The entire study was then used to link the theoretical basis with the conditions of students' coping skills in the field.

Student Needs Analysis: The results of the questionnaire analysis given to 59 MAS Al-Asy'ariyah students aimed to obtain a general picture of the students' coping skills.

Table 1. Recapitulation of Students' Coping Skills

No	Aspect / Sub-Variable	Dominant Category	F	%
1.	Problem Focused Coping	Low	27	45,76%
2.	Emotion Focused Coping	Low	29	49,15%
3.	Coping Flexibility	Low	25	42,37%
4.	Collaboration and Communication	Low	20	33,90%
5.	Stress Management	Low	19	32,20%

Based on table 1, students' coping skills at MAS Al-Asy'ariyah are generally low across all aspects. These findings indicate that students are still not optimal in solving problems, managing emotions, adapting coping strategies, communicating, collaborating, and managing stress. Therefore, strengthening guidance and counseling services is needed to help students develop more adaptive coping skills.

Table 2. Results of Processing the Student Coping Skill Analysis Questionnaire on Various Indicators

No	Sub-Variable	Category	Interval	F	%
1	Problem Focused Coping	Very High	21–24	10	16.95
		High	16–20	12	20.34
		Low	11–15	27	45.76
		Very Low	6–10	10	16.95
Total				59	100.00
2	Emotion Focused Coping	Very High	17–20	8	13.56
		High	13–16	10	16.95
		Low	9–12	29	49.15
		Very Low	5–8	12	20.34
Total				59	100.00
3	Coping Flexibility	Very High	17–20	10	16.95
		High	13–16	12	20.34
		Low	9–12	25	42.37
		Very Low	5–8	12	20.34
Total				59	100.00
4	Collaboration and Communication	Very High	17–20	13	22.03
		High	13–16	13	22.03
		Low	9–12	20	33.90
		Very Low	5–8	13	22.03
Total				59	100.00
5	Stress Management	Very High	10–12	13	22.03
		High	8–9	14	23.73
		Low	6–7	19	32.20

	Very Low	3–5	13	22.03
Total			59	100.00

Table 2 shows that the results of the questionnaire processing indicate that students' coping skills across all subvariables tend to be predominantly classified as low. This finding suggests that most students are still not optimal in dealing with problems, managing emotions, adapting coping strategies, building communication and cooperation, and managing stress effectively. Therefore, targeted coaching and guidance services are needed to improve students' coping skills and make them more adaptive in facing various pressures.

Based on the results of interviews with guidance counselors, it can be concluded that one of the problems experienced by MAS Al-Asy'ariyah students is low coping skills. This is evident in the difficulties some students have in managing stress, controlling emotions, finding solutions to problems, and adapting strategies when faced with stressful situations. This condition indicates that students still need appropriate guidance to be able to deal with academic, personal, and social pressures more adaptively. Thus, a guidance counseling service media is needed that is interactive, attractive, and aligned with the characteristics and needs of students, so that it can train their coping skills more effectively.

Analysis of students' media needs: The results of the questionnaire analysis given to MAS Al-Asy'ariyah students aim to obtain an overview and determine students' needs regarding daruma otoshi escape room media to train coping skills.

Table 3. Results of Processing the Student Coping Skill Media Needs Analysis Questionnaire

No	Analysis Dimension	Aspect	Indicator	Response Option	%
1.	Media Needs	Type of Media	The use of game-based media in guidance and counseling services is necessary to train students' coping skills	Strongly Agree	40
				Agree	45
				Disagree	10
				Strongly Disagree	5
2.	Student Characteristics	Learning Style	Game-based learning media makes it easier for students to understand coping skill material	Strongly Agree	38
				Agree	42
				Disagree	15
				Strongly Disagree	5
3.	Media Availability	Facilities	School facilities support the use of Daruma Otoshi Escape Room game	Strongly Agree	35

media in counseling services					
				Agree	40
				Disagree	18
				Strongly Disagree	7
4.	Student Motivation	Interest	Attractive game media can increase students' activeness and motivation in participating in counseling services	Strongly Agree	45
				Agree	38
				Disagree	12
				Strongly Disagree	5
5.	Service Effectiveness	Material Understanding	Daruma Otoshi Escape Room media helps students understand coping skills effectively	Strongly Agree	42
				Agree	43
				Disagree	10
				Strongly Disagree	5

Based on the table, it can be concluded that the need for the use of game media Daruma Otoshi Escape Room in guidance and counseling services is relatively high. This finding is reflected in the tendency for positive responses to dominate all indicators, particularly in the aspects of media needs, student motivation, and service effectiveness, with a combined percentage of the categories strongly agree and agree respectively reaching 85%, 83%, and 85%. This finding shows that game media is seen as relevant for training coping skills, facilitating understanding of the material, and increasing student engagement and motivation in participating in guidance and counseling services. Furthermore, school infrastructure support was also deemed adequate, although a limited number of respondents provided less than supportive responses. Referring to this description, the media Daruma Otoshi Escape Room has strong prospects to be developed as an attractive, participatory, and effective guidance and counseling service facility in facilitating students to understand and strengthen their coping skills.

Design Level

The second stage is the design (planning) stage, which is the stage of creating a product plan. The steps involved in the product design stage are: First, product selection: product selection is adjusted by considering the potential, problems, and needs of students. The chosen product is the Daruma Otoshi Escape Room game to train students' coping skills. Second, the game's mechanics: This game has mechanics designed to challenge students in the face of stress. Each team will complete challenges in a way that tests their problem-solving skills, flexibility in problem-solving, collaboration and communication, and stress management.

Third, the tools used in the game: a box (to store the daruma heads and function as a key holder); a wooden hammer (used to hit the wooden blocks without knocking over the arrangement); wooden stacking blocks (the main

medium in the physical challenge of the daruma otoshi game); a card tool (containing questions or challenges to obtain numbers used as codes); a padlock tool (to open the daruma head storage box using a code); a book.

Instruction (to provide instructions and directions during the game). Testing the validity and reliability of the student coping skills instrument: The results of the validity test show that the majority of items have a calculated r above 0.361, so they are declared valid. Items that meet this criterion are able to measure aspects of student coping skills consistently and representatively, so the instrument can be used as a valid measuring tool to identify student coping needs. Reliability testing of the 24-item instrument produced a Cronbach's Alpha coefficient of 0.954, which indicates a very high level of internal consistency.

Table 4. Results of reliability tests using Cronbach's Alpha

Reliability Statistics	
Cronbach's Alpha	N of Items
.954	24

With these clear design steps, the Daruma Otoshi Escape Room game is designed to train students' coping skills in a fun and challenging way. This game provides an effective learning experience in guidance and counseling.

Development Stage

At this stage, development activities were carried out through the creation of the "Daruma Otoshi Escape Room to Train Students' Coping Skills" media based on the results of the analysis and design stages. First, Test the Validity of the Material.

Table 5. Data from the validation results of material experts regarding the development of the Daruma Otoshi escape room media to train students' coping skills

No	Aspect	Validator Score	Maximum Score	%	Note
1.	Content/Material Feasibility	16	16	100	SL
2.	Suitability for Students	6	8	75	L
3.	Game Activity Alignment with Coping Skill Goals	11	12	91	L
4.	Material Presentation	16	16	100	SL
5.	Language Use	4	4	100	SL
Overall Total		53	56	94	SL

Description: SL = Very Eligible

The total score obtained was 53 out of a maximum score of 56, or 94%, which falls into the very suitable (SL) category. This finding confirms that the media development material Daruma Otoshi Escape Room generally meets the eligibility standards according to expert perspectives, both in terms of content, presentation, and language.

Second, Media Validation Test

Table 6. Data from media expert validation results regarding the development of the Daruma Otoshi escape room media to train students' coping skills

No	Aspect	Validator Score	Maximum Score	%	Note
1.	Overall Media	23	24	95.83	SL
2.	Box Tool	8	8	100.00	SL
3.	Wooden Hammer Tool	8	8	100.00	SL

4.	Stacked Wooden Blocks	8	8	100.00	SL
5.	Question Card Tool	15	16	93.75	SL
6.	Lock Tool	7	8	87.50	SL
7.	Instruction Book	27	28	96.42	SL
8.	Overall Total	96	100	96.00	SL

SL Description: Very Worthy

The total media score was 96 out of a maximum score of 100, or 96%, so it falls into the very suitable (SL) category. This result shows that the media Daruma Otoshi Escape Room has excellent quality, both in terms of completeness, tool functionality, and ease of use. Therefore, this media can be used effectively as a means to train students' coping skills, as each component meets expert standards.

Third, Expert Validation Test of the Content of the Guidance and Counseling Teacher Response Questionnaire and the Student Response Questionnaire.

Table 7. Results of the validation test of the questionnaire responses of guidance and counseling teachers and students

Aspect	Validator Score	Maximum Note Score	Note
Content of Teacher Response Questionnaire	57	60	SL
Aspect	Validator Score	Validator Score	Note
Content of Student Response Questionnaire	53	56	SL

Based on the validation results of the questionnaire instrument used in the study, a score of 57 out of a maximum of 60 was obtained for the guidance and counseling teacher response questionnaire, and 53 out of a maximum of 56 for the student response questionnaire. Both scores fall into the Very Adequate (SL) category, indicating that the questionnaire content has met validity criteria in terms of clarity, relevance, and suitability of the questions to the research objectives.

Implementation Stage

In this phase, all media designs that have gone through the development process are implemented after carrying out the analysis, design and development stages. First, results of practicality tests of product users on Guidance and Counseling teachers.

Table 8. Practicality test of product users on the Daruma Otoshi Escape Room media

No	Statement	Teacher Counsel or Score	Σ Ideal Score	Category
1	Readiness and Ease of Media Use	18	20	SP
2	Presentation and Systematics of Media	14	16	SP
3	Suitability with Students' Goals and Needs	15	20	P
4	Time Effectiveness of Media Implementation	6	8	P
5	Feasibility of Application in Counseling Services	6	8	P
Total		59	72	P

The total overall score obtained was 59 out of 72, so this media is included in the practical category (P). This result shows that the media Daruma Otoshi

Escape Room can be applied effectively in guidance and counseling services, has ease of use, and meets students' learning needs and objectives, although some aspects can still be improved to reach a very practical level. Student Response Test Results: This questionnaire was completed by 12 students, who responded to the media based on their experiences while playing.

Table 9. Results of student responses to the Daruma Otoshi escape room game media to train students' coping skills

Sub-Variable	Category	Interval	F	%
Media in Helping Problem-Solving	Very High	21-24	5	41.66
	High	16-20	7	58.33
	Very Low	11-15	0	00.00
	Low	6-10	0	00.00
	Total		12	100.00
Media in Managing Emotions	Very High	17-20	4	33.33
	High	13-16	7	58.33
	Low	9-12	1	8.33
	Very Low	5-8	0	0
	Total		12	100.00
Media in Training Strategy Flexibility	Very High	17-20	5	41.66
	High	13-16	7	58.33
	Low	9-12	0	00.00
	Very Low	5-8	0	00.00
	Total		12	100.00
Media in Training Collaboration and Communication	Very High	17-20	4	33.33
	High	13-16	7	58.33
	Low	9-12	1	8.33
	Very Low	5-8	0	00.00
	Total		12	100.00
Stress Management	Very High	12	4	33.33
	High	9-11	6	50.00
	Low	6-8	2	16.66
	Very Low	3-5	0	00.00
	Total		12	100.00

Overall, students' perceptions of the media Daruma Otoshi Escape Room are in the high to very high category range, which indicates that this media is effective, interesting, and relevant for training various aspects of coping skills, including problem solving, emotional management, strategic flexibility, collaboration, communication, and stress management.

Evaluation Level

In the evaluation stage (E), researchers conducted a final evaluation of the developed product, focusing on the implementation of the revised results based on input from the validator experts. This stage no longer emphasized adding or changing the main substance of the product, but rather ensuring that all suggestions, criticisms, and recommendations suggested by the validators had been accommodated and implemented properly in the developed media. No revisions were made by the guidance counselor or students. Thus, the evaluation stage served as a form of confirmation that the final product had been refined in accordance with the expert validation results and was suitable for use.

The results of the study indicate that the Daruma Otoshi Escape Room media development is feasible for high school students' coping skills training. Based on a needs analysis of 59 students at MAS Al-Asy'ariyah, students' coping

skills were generally still in the low category across all subvariables. The coping aspects analyzed included problem-focused coping, emotion-focused coping, coping flexibility, collaboration and communication skills, and stress management. In the problem-focused coping dimension, 45.76% of students were in the low category. This finding suggests that some students still experience obstacles in identifying problems, formulating alternative solutions, and determining appropriate actions when facing pressure. This finding aligns with the Transactional Model of Stress and Coping framework, which views stress as the result of a dynamic interaction between individuals and environmental demands (Spahl et al., 2024), and states that problem-focused coping is effective when stressors can be changed through planned action strategies (Ghaffari et al., 2021). Therefore, the Daruma Otoshi Escape Room media is considered relevant because it provides concrete experiences for students to face challenges, solve problems, and make decisions in stressful but controlled game situations.

Subvariable Emotion-focused coping also demonstrated a need for strengthening, as 49.15% of students were in the low category. This indicates that students' capacity to manage this aspect has not yet reached an optimal level of development in regulating emotions, calming themselves, and positively reappraising stressful situations. This finding aligns with the principles of Experiential Learning, which place concrete experiences and reflective processes as the primary foundation for building student understanding and skills (Haryati et al., 2024; Majid, 2012; Sundari & Haryati, 2024). Through the Daruma Otoshi Escape Room, students not only receive verbal explanations about coping skills but also encounter situations that require emotional control, patience, and composure when completing game challenges. Thus, emotional management can be practiced in a more concrete and relevant way to students' daily lives.

Coping flexibility is also a key concern, as 42.37% of students fall into the low category. This finding indicates that some students still face challenges in adapting their coping strategies when previous strategies are ineffective. The Daruma Otoshi Escape Room provides students with the opportunity to evaluate their strategies, discontinue less effective ones, and replace them with new, more appropriate ones. This process aligns with Kato, (2020) Coping Flexibility Model, which emphasizes the importance of evaluation, abandonment, and re-coping in the face of stress. Therefore, this tool can help students practice adaptively shifting between problem-solving and emotion-management strategies, depending on the characteristics and demands of the situation.

Furthermore, this media is also relevant for enhancing student collaboration and communication. The needs analysis showed that 33.90% of students were in the low category in terms of collaboration and communication. Through escape room games, students are required to discuss, divide roles, express opinions, listen to their peers' ideas, and collaborate to solve challenges. This aligns with the socio-cultural constructivist approach, which emphasizes that active interaction, the exchange of ideas, and group collaboration can shape meaning and increase students' cognitive flexibility (Cheng & Chau, 2022; Spahl et al., 2024). However, implementation of this media still requires guidance from guidance counselors to ensure that each student is equally involved and avoids domination by certain group members.

In terms of stress management, 32.20% of students fall into the low category, necessitating media that can train students to deal with stress adaptively. Daruma Otoshi Escape Room presents time pressure, tiered challenges, and situational uncertainty in a safe and enjoyable context. This

environment aligns with the principles of serious games, which emphasize immersive, interactive, challenging, and meaningful learning experiences (Kato, 2015; Lau et al., 2017). Through this medium, students learn to face difficult situations, manage tension, and maintain focus in completing group assignments. However, the intensity of the challenges must be controlled to avoid causing excessive anxiety, especially for students with low coping skills.

The media's feasibility is also supported by the results of expert validation. The assessment by the material validator resulted in a score of 53 out of a maximum score of 56, or 94%, making it fall into the very feasible classification. Meanwhile, the evaluation by the media validator obtained a score of 96 out of 100, or 96%, which is also in the very feasible category. These findings indicate that the Daruma Otoshi Escape Room media has met the feasibility criteria in terms of content, material presentation, language, completeness of tools, media function, and ease of use. In addition, the results of the practicality test by the guidance and counseling teacher obtained a score of 59 out of 72 in the practical category, which means this media can be used in guidance and counseling services quite easily, systematically, and is suitable for student needs.

Assumption: Students' responses to media use showed a positive trend across all measured aspects. All students rated the media as high to very high in supporting problem-solving skills and flexible strategy use. In the dimensions of emotional management and collaboration and communication, the proportion of students who gave high to very high ratings reached 91.66%, respectively. Meanwhile, in the stress management aspect, 83.33% of students placed the media in the high to very high category. These results indicate that the media was well received and considered capable of facilitating the practice of various dimensions of coping skills. These results demonstrate that the Daruma Otoshi Escape Room media not only meets conceptual feasibility and practical applicability but also receives a positive response from students as an interesting, interactive medium that helps practice various aspects of coping skills.

Overall, the Daruma Otoshi Escape Room media confirms that a hands-on, interactive, and real-life experience-based approach is more suitable for training students' coping skills compared to conventional learning approaches dominated by lectures and verbal information delivery. This medium is able to integrate elements of traditional games, escape room challenges, teamwork, problem-solving, emotional regulation, strategic flexibility, and stress management in one safe and enjoyable learning experience. The integration of empirical data and the theories of Experiential Learning, the Transactional Model of Stress and Coping, and the Coping Flexibility Model shows that this media can be a relevant and applicable educational intervention in school guidance and counseling practices, while filling the research gap related to the use of physical-interactive game media to train students' coping skills through real involvement in the activity process.

CONCLUSION

Referring to the overall research findings, it can be emphasized that the development of the Daruma Otoshi Escape Room media to train students' coping skills has produced a valid, practical guidance and counseling service product and received a positive response from students. The development process was carried out through the ADDIE model, which includes five stages, namely analysis, design, development, implementation, and evaluation. In the analysis phase, it was found that the coping skills of MAS Al-Asy'ariyah students still tend to be in the low category, especially in aspects of coping strategies oriented towards problem solving, managing emotional responses,

and the ability to adapt strategies flexibly, collaboration and communication, and stress management. This condition indicates the need for more interactive, interesting, and experience-based guidance and counseling service media so that students can practice dealing with pressure more adaptively.

The Daruma Otoshi Escape Room media developed demonstrated an excellent level of feasibility. This was demonstrated by the results of the material validator assessment of 94% and the media validator of 96%, both of which were included in the very feasible category. In addition, the results of the practicality test by the guidance and counseling teacher showed that the media was included in the practical category, so it could be implemented in guidance and counseling services at school. Student responses showed positive results, as most students rated this media in the high to very high category for helping with problem solving, emotional management, strategic flexibility, collaboration and communication, and stress management. Thus, the Daruma Otoshi Escape Room media can be an alternative innovative guidance and counseling media that is able to integrate elements of games, challenges, teamwork, and direct experience in the process of training students' coping skills.

The implications of this study indicate that guidance and counseling services need to develop approaches that are not only verbal or conventional, but also involve real-life experiences, collaborative activities, and educational games that align with student characteristics. The Daruma Otoshi Escape Room media can be used by guidance and counseling teachers as a means to help students understand and practice coping strategies in a more concrete, enjoyable, and meaningful way. Suggestions for further research include testing this media on a larger number of subjects and a wider range of subjects, applying it to various educational levels, and utilizing pretest and posttest experimental research designs to assess its effectiveness. Furthermore, further development can be carried out by refining the variety of challenges, game duration, and facilitator guidance so that the media can be better utilized in guidance and counseling services in schools.

REFERENCES

- Aryasutha, R., Azizah Ria Kusriani, N., Nurul Ulya, J., & Syamsiah Septiani, N. (2025). Opportunities and Challenges for Islamic Education Teachers in Using Artificial Intelligence in Learning. *Muaddib.Intischolar.Id*, 2(1), 43. <https://muaddib.intischolar.id/index.php/muaddib/article/view/6>
- Au-Yeung, A., Marfatia, D., Beers, K., General, D. A., McQueen, K. C. D., Martin-Hill, D., Wekerle, C., & Green, T. J. (2023). Exploring the feasibility of a mental health application (JoyPop™) for Indigenous youth. *Frontiers in Psychiatry*, 14. <https://doi.org/10.3389/fpsyt.2023.1269347>
- Çakmak, B., & Kaymaz, T. T. (2024). The effect of an escape room game on students' academic self-efficacy and motivation for critical thinking: oncology nursing course. *BMC Nursing*, 23(1). <https://doi.org/10.1186/s12912-024-02586-5>
- Cheng, C., & Chau, C. L. (2022). Gamification-based intervention for enhancing team effectiveness and coping flexibility: Randomized controlled trial. *Frontiers in Psychiatry*, 13(July), 1–13. <https://doi.org/10.3389/fpsyt.2022.941252>
- Efendi, E., Jaafar, A., & Engkizar, E. (2026). Muslim Women's Leadership in Conflict Management in Higher Education. *Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah*, 11(2), 826–838.

- <https://doi.org/https://doi.org/10.24042/tadris.v11i2.30474>
- Engkizar, E., Jaafar, A., Alias, M., Guspita, B., & Albizar, R. (2025). Utilisation of Artificial Intelligence in Qur'anic Learning: Innovation or Threat? *Journal of Quranic Teaching and Learning*, 1(2), 1–17. <https://joqer.intischolar.id/index.php/joqer/index>
- Engkizar, E., Jaafar, A., Hamzah, M. I., Syafril, S., Febriani, A., Oktavia, G., & Satrial, A. (2026). Quran Teachers' Skills as Pedagogical Foundations: Conceptual and Practical Insights into Nine Competencies. *Muaddib: Journal of Islamic Teaching and Learning*, 2(1), 22–38. <https://doi.org/10.67055/xt598c43>
- Engkizar, E., Jaafar, A., Hamzah, M. I., Syafril, S., Oktavia, G., Febriani, A., & Albizar, A. (2026). Tartil Method as an Effective Strategy for Transforming Students' Positive Attitudes in Learning the Qur'an. *Journal of Quranic Teaching and Learning*, 2(1), 50–63. <https://joqer.intischolar.id/index.php/joqer/article/view/21>
- Ferreira, J. C. (2012). an Evaluation of the Psychometric Properties of the Maree Career Matrix. *MA Thesis*, 1.
- Freeland, L., O'reilly, M., Fleury, J., Adams, S., & Vostanis, P. (2022). Digital Social and Emotional Literacy Intervention for Vulnerable Children in Brazil: Participants' Experiences. *International Journal of Mental Health Promotion*, 24(1), 51–67. <https://doi.org/10.32604/ijmhp.2022.015706>
- Garbóczy, S., Szemán-Nagy, A., Ahmad, M. S., Harsányi, S., Ocsenás, D., Rekenyi, V., Al-Tammemi, A. B., & Kolozsvári, L. R. (2021). Health anxiety, perceived stress, and coping styles in the shadow of the COVID-19. In *BMC Psychology* (Vol. 9, Issue 1). Springer. <https://doi.org/10.1186/s40359-021-00560-3>
- Ghaffari, M., Morowatisharifabad, M. A., Jadgal, M. S., Mehrabi, Y., & Alizadeh, S. (2021). The effectiveness of intervention based on the transactional model on improving coping efforts and stress moderators in hemodialysis patients in Tehran: a randomized controlled trial. *BMC Nephrology*, 22(1), 1–11. <https://doi.org/10.1186/s12882-021-02592-8>
- Hakima, & Hidayati. (2020). Peran Model Experiential Learning Dalam Pendidikan Berbasis Keterampilan Tata Busana. *Jurnal Online Tata Busana*, 9(03), 51–59. <https://doi.org/https://ejournal.unesa.ac.id/index.php/jurnal-tata-busana/article/view/36853>
- Haryati, S., Sukarno, S., Siswanto, S., & Trisnowati, E. (2024). Trends in Religious-Based School Selection: Analysis of Parental Motivation. *AL-ISHLAH: Jurnal Pendidikan*, 16(4), 4439–4449. <https://doi.org/10.35445/alishlah.v16i4.5329>
- Kato, T. (2015). The impact of coping flexibility on the risk of depressive symptoms. In *PLoS ONE* (Vol. 10, Issue 5, pp. 1–8). <https://doi.org/10.1371/journal.pone.0128307>
- Kato, T. (2020). Examination of the Coping Flexibility Hypothesis Using the Coping Flexibility Scale-Revised. *Frontiers in Psychology*, 11(December), 1–13. <https://doi.org/10.3389/fpsyg.2020.561731>
- Kowal, M., Conroy, E., Ramsbottom, N., Smithies, T., Toth, A., & Campbell, M. (2021). Gaming your mental health: A narrative review on mitigating symptoms of depression and anxiety using commercial video games. *JMIR Serious Games*, 9(2), 1–13. <https://doi.org/10.2196/26575>
- Lau, H. M., Smit, J. H., Fleming, T. M., & Riper, H. (2017). Serious games for mental health: Are they accessible, feasible, and effective? A systematic review and meta-analysis. *Frontiers in Psychiatry*, 7(JAN).

<https://doi.org/10.3389/fpsyg.2016.00209>

- Majid, A. (2012). *Belajar dan Pembelajaran. Remaja Rosda Karya*.
<https://dpk.kepriprov.go.id/opac/detail/0tfyn>
- Okechukwu, F. O., Ogbu, K. T. U., Nwifo, J. I., Ogbu, M. O., Onyekachi, B. N., Nwanosike, C. I., & Onyishi, A. B. (2022). Academic stress and suicidal ideation: moderating roles of coping style and resilience. In *BMC Psychiatry* (Vol. 22, Issue 1). Springer. <https://doi.org/10.1186/s12888-022-04063-2>
- Padrón, I., Fraga, I., Vieitez, L., Montes, C., & Romero, E. (2021). A Study on the Psychological Wound of COVID-19 in University Students. In *Frontiers in Psychology* (Vol. 12). <https://doi.org/10.3389/fpsyg.2021.589927>
- Purnama, A. S., & Pujihartati, S. H. (2024). Konstruksi Sosial Mahasiswa Dalam Fenomena Childfree Dan Konsep Keluarga Ideal Di Indonesia. *Journal of Development and Social Change*, 7(2), 1–23.
- Sahputra, D., & dkk. (2025). Pengembangan E-Book Konseling Kesehatan Mental Untuk Meningkatkan Kesehatan Mental Mahasiswa. *Mitra Ash-Shibyan: Jurnal Pendidikan Dan Konseling*, 8(01), 13–24. <https://doi.org/https://ejournal.stai-tbh.ac.id/mitra-ash-syibyan/article/view/2249/662>
- Spahl, W., Motta, V., Woodcock, K., & Rubeis, G. (2024). Gamified Digital Mental Health Interventions for Young People: Scoping Review of Ethical Aspects During Development and Implementation. *JMIR Serious Games*, 12. <https://doi.org/10.2196/64488>
- Sundari, S. R. I., & Haryati, T. (2024). Efektivitas Program Pembiasaan Pagi Di Mts Nur Anom Gringsing Batang Dalam Meningkatkan Kemampuan Siswa Dalam Membaca Al-Qur'an. *CENDEKIA: Jurnal Ilmu Pengetahuan*, 4(2), 115–119. <https://doi.org/10.51878/cendekia.v4i2.2802>
- Ulujami Roheti, adah, Yusup, R., Adawiyah, R., Rosyidah, H., Assa, M., Ulujami, adah, Al-Ikhlash Bahomohoni, M., Hidayatul Muhtadi, M., & Kuta, M. (2025). Penerapan Escape Room Edukatif dalam Pembelajaran SKI di kelas V MI. *Jurnal Studi Tindakan Edukatif*, 1(2), 2025. <https://ojs.jurnalstuditindakan.id/jste/>
- Vatansever, D., Wang, S., & Sahakian, B. J. (2021). Covid-19 and promising solutions to combat symptoms of stress, anxiety and depression. *Neuropsychopharmacology*, 46(1), 217–218. <https://doi.org/10.1038/s41386-020-00791-9>
- Waters, L., Allen, K. A., & Arslan, G. (2021). Stress-Related Growth in Adolescents Returning to School After COVID-19 School Closure. In *Frontiers in Psychology* (Vol. 12). <https://doi.org/10.3389/fpsyg.2021.643443>

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