



Development of Emotional Animation Video Media to Enhance Emotional Intelligence in Early Childhood

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ABSTRACT

Purpose: This study aimed to develop and evaluate the feasibility, practicality, and effectiveness of *Video Animasi Emosi* as an emotional literacy medium to enhance the emotional intelligence of early childhood children. **Methods:** This research employed a Research and Development (R&D) approach using the 4D model consisting of Define, Design, Develop, and Disseminate stages. The study involved 30 children aged 5–6 years and 12 teachers from TK Pertiwi Bontonmpo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoa. Data were collected through interviews, questionnaires, observations, expert validation sheets, and teacher response questionnaires. The effectiveness of the media was evaluated using a one-group pretest–posttest design and analyzed using descriptive statistics and the Wilcoxon Signed-Rank Test. **Findings:** The developed *Video Animasi Emosi* obtained an average expert validation score of 3.00 (Valid), indicating that both the animated video and the accompanying teacher guidebook met the criteria for a valid learning medium. The practicality assessment yielded an overall score of 96.00%, categorizing the media as very practical for classroom implementation. The effectiveness evaluation showed that children's emotional intelligence reached the Very Good category ($\geq 85\%$), with marked improvements in self-awareness, emotional management, self-motivation, empathy, and social skills. Furthermore, the Wilcoxon Signed-Rank Test revealed a statistically significant difference between pretest and posttest scores (Asymp. Sig. = 0.04, $p < 0.05$), confirming that the developed media effectively enhanced early childhood emotional intelligence. **Research Implications:** The findings suggest that animated video-based emotional literacy media can be effectively integrated into early childhood education to promote socio-emotional development and strengthen children's emotional intelligence. **Originality:** This study presents a technology based emotional literacy medium featuring six basic emotions happiness, sadness, anger, fear, surprise, and disgust supported by a teacher guidebook and specifically developed for early childhood education using the 4D model.



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INTRODUCTION

Early childhood education is a fundamental phase in shaping children's personality and future adaptability. During this period, emotional development, particularly emotional intelligence, is as important as cognitive development. Emotional intelligence includes the ability to recognize, understand, and appropriately express emotions in everyday interactions. One important foundation for developing emotional intelligence is emotional literacy, namely children's ability to identify and understand emotional expressions and feelings. Children who possess good emotional literacy tend to demonstrate better self-control and more adaptive social interactions (Hasan & Ahmar, 2025).

One crucial aspect of child development that is often overlooked in formal curricula is emotional literacy as a foundation for developing emotional intelligence. Emotional literacy refers to a child's ability to recognize, understand, and appropriately express emotions, while emotional intelligence encompasses the broader ability to recognize emotions, regulate emotional responses, empathize with others, and build positive social relationships. Children who are able to understand and express their emotions properly tend to demonstrate better self-control and more adaptive social skills in everyday interactions (Saleem et al., 2024).

The concepts used in this study include emotional literacy and emotional intelligence. Although these concepts are closely related, they have different roles in child development. Emotional literacy serves as the initial ability that enables children to identify emotional expressions, understand emotional situations, and communicate feelings appropriately. Meanwhile, emotional intelligence represents a more comprehensive ability involving emotional awareness, emotional regulation, empathy, and positive interpersonal relationships. In this study, Video Animasi Emosi is positioned as an emotional literacy medium designed to help children recognize and understand emotions through visual, auditory, and interactive learning experiences. Through animated stories depicting everyday emotional situations, children are expected to identify emotional expressions, understand the causes of emotions, and develop appropriate emotional responses. This emotional literacy process is expected to foster better emotional intelligence (Cahyaningrum et al., 2017).

The conceptual framework of this study explains that Video Animasi Emosi functions as an audio-visual emotional literacy medium. The animated videos present emotional expressions, everyday social situations, and contextual storytelling that help children recognize emotional labels, understand emotional situations, and express emotions appropriately. Through guided discussions supported by the teacher guidebook, children are expected to develop greater emotional awareness, empathy, emotional regulation, and positive social interaction skills (Conita Ananto & Vinayastri, 2021).

However, objective conditions in the field indicate significant challenges in achieving these aspects. Initial observations and interviews conducted with teachers at TK Pertiwi Bontonombo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoa revealed that children's emotional understanding and social interaction still need improvement. Frequently occurring phenomena include children's difficulty recognizing their own feelings, low empathy toward peers experiencing emotional distress, and a tendency to respond to conflict or discomfort through physical actions, excessive crying, or tantrums. These problems are compounded by the limited availability of engaging learning media and the lack of systematic instructional resources to support emotional literacy development in early childhood classrooms.

The problem addressed in this study focuses on the obstacles to developing children's emotional intelligence observed across the three participating kindergartens. Based on preliminary observations and needs analysis involving 12 teachers, many children demonstrated difficulties in recognizing, understanding, and expressing basic emotions appropriately. This condition was reflected in low emotional awareness and limited social adaptation skills, where children often struggled to communicate their feelings and respond positively to social situations. Therefore, there is an urgent need to develop innovative learning media that can help children understand emotional concepts in a more concrete, meaningful, and developmentally appropriate manner.

Theoretically, young children learn most effectively through meaningful experiences, visual stimulation, and play-based activities. Audio-visual media, particularly animation, provide opportunities for children to observe emotional expressions, social situations, and behavioral responses simultaneously (Enkhtuya et al., 2024). Video animation is considered an effective medium because it combines visual and auditory elements that can attract children's attention while facilitating understanding of abstract concepts such as emotions. Through animated stories, children can observe emotional situations and learn appropriate ways to recognize and express feelings in everyday life (Conte et al., 2019).

The development of *Video Animasi Emosi* in this study is grounded in cognitive development principles, which emphasize that young children understand concepts more effectively when learning experiences are presented through concrete representations, visual stimulation, and meaningful interactions. Audio-visual learning media therefore provide appropriate support for introducing abstract concepts such as emotions. In socio-emotional development, emotional intelligence is viewed as a fundamental competence that should be stimulated from an early age so children can recognize emotional labels, regulate emotional responses, and interact positively with others. Without appropriate learning media, emotional concepts such as happiness, sadness, anger, fear, surprise, and disgust may remain difficult for children to understand and internalize (Sari & Maini Sitepu, 2024).

As a solution to the problem of limited emotional literacy stimulation, this study proposes the development of Video Animasi Emosi as an emotional literacy medium for early childhood education. The media is specifically designed to introduce six basic emotions proposed by Ekman, namely happiness, sadness, anger, fear, surprise, and disgust. These emotions were selected because they represent universal emotional expressions commonly experienced by children and serve as the foundation for emotional understanding and emotional intelligence development. The solution approach offered through this media includes three main components:

1. Concrete Emotional Visualization: Animated characters display clear facial expressions, body language, and emotional situations to help children identify six basic emotions.
2. Story-Based Emotional Learning: Children observe emotional events through simple stories that illustrate the causes, consequences, and appropriate responses to different emotions.
3. Teacher Implementation Guide: A practical guide is provided to support teachers in integrating the videos into classroom activities and emotional literacy discussions.

This approach is expected to transform social-emotional learning practices from conventional teacher explanations into more engaging, interactive, and child-centered learning experiences. By utilizing animation technology and contextual storytelling, barriers to children's emotional understanding can be addressed more effectively and sustainably.

The main theory underlying this research is Emotional Intelligence Theory, which defines emotional intelligence as an individual's ability to recognize, understand, manage, and utilize emotions effectively within oneself and in relationships with others (Tschanper et al., 2023). In early childhood, emotional intelligence serves as the foundation for successful social interaction because children who can identify emotions accurately are more likely to develop empathy, self-regulation, and positive social relationships. Within this framework, Video Animasi Emosi was developed as an emotional literacy medium intended to stimulate children's emotional awareness, emotional regulation, empathy, motivation, and social skills.

Several previous studies have confirmed the effectiveness of visual and audio-visual stimulation in improving children's emotional literacy. However, a research gap remains because most existing emotional literacy media rely on static visual representations such as flashcards and picture books, providing limited situational context for children. This study addresses that gap by developing animated emotional learning media that presents emotional experiences dynamically through storytelling and visual interaction. The novelty of this research lies in the development of Video Animasi Emosi specifically designed to introduce six basic emotions through contextual animated scenarios that allow children to observe emotional situations and learn appropriate emotional responses.

Previous research conducted by (Aliyasari, 2021) entitled "*Designing Flashcards as a Media for Emotion Recognition in Preschool Children*" demonstrated that visual media effectively supported children's understanding of emotional concepts. Similarly, (Cyntia, 2022) found that emotional literacy-based learning materials significantly improved students' emotional literacy. Nevertheless, most previous studies focused on static learning media and older student populations. Therefore, research specifically developing animated emotional literacy media for early childhood remains limited. Moreover, few studies have developed and empirically evaluated animated video-based emotional literacy media specifically designed for children aged 5–6 years using a systematic Research and Development approach. This gap highlights the need for innovative audio-visual learning media that are valid, practical, and effective in enhancing children's emotional intelligence.

The urgency of this research is based on the need for valid, practical, and effective emotional literacy media in TK Pertiwi Bontonompo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoa. Based on the problems identified and the needs analysis involving 12 teachers, this study focuses on developing innovative Video Animasi Emosi media using the 4D model (Define, Design, Develop, Disseminate). The effectiveness of the developed media was subsequently tested on 30 children. The primary objective of this study is to produce valid, practical, and effective Video Animasi Emosi media to optimize children's emotional intelligence, particularly in recognizing and understanding six basic emotions: happiness, sadness, anger, fear, surprise, and disgust.

The theoretical contribution of this study is to strengthen the role of emotional intelligence and emotional literacy within early childhood education. Practically, the study provides educators with an innovative learning resource in the form of Video Animasi Emosi and an accompanying teacher guide. This contribution is expected to support children's emotional development, reduce problematic emotional behaviors, enhance empathy and social interaction skills, and create a more positive classroom environment. By achieving these objectives, the study seeks to provide evidence regarding the effectiveness of animated emotional learning media in supporting emotional intelligence development among young children.

METHOD

Research Type and Development Model

This study employed a Research and Development (R&D) approach aimed at developing and evaluating an educational learning medium in the form of *Video Animasi Emosi* to support emotional literacy and optimize emotional intelligence among early childhood children. Research and Development is a research method used to produce specific products

and test their effectiveness (Sugiyono, 2019). The development process adopted the Four-D (4D) Model proposed by Thiagarajan, consisting of four stages: Define, Design, Develop, and Disseminate. The developed media focuses on introducing six basic emotions, namely happiness, sadness, anger, fear, surprise, and disgust, through animated storytelling adapted to the developmental characteristics of children aged 5–6 years.

Research Subjects and Sampling Technique

The study was conducted at TK Pertiwi Bontonampo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoe. The research subjects consisted of 30 children aged 5–6 years and 12 teachers. The teachers participated in the needs analysis, product validation, and practicality assessment processes, while the children were involved in the effectiveness testing phase of the developed media. The sampling technique used was purposive sampling, in which participants were selected intentionally based on specific criteria relevant to the objectives of the study, including children's age characteristics, teachers' teaching experience, and schools' willingness to participate in the research process.

Data Collection Techniques and Research Instruments

Data collection was carried out through interviews, questionnaires, and observations. Interviews were conducted to identify teachers' needs regarding emotional literacy learning media. Questionnaires were used to collect expert validation data and teacher responses toward the developed media. Observation sheets were employed to assess children's emotional intelligence before and after the implementation of the learning intervention.

The research instruments consisted of material validation sheets, media validation sheets, teacher response questionnaires, and emotional intelligence observation sheets. The observation indicators included children's ability to recognize emotions, express emotions appropriately, understand others' emotions, demonstrate empathy, and regulate emotional responses during social interactions.

Prior to data collection, all research instruments were reviewed by expert validators to ensure content validity. The instruments included the material validation sheet, media validation sheet, teacher response questionnaire, and emotional intelligence observation sheet. Suggestions and revisions provided by the validators were incorporated before the instruments were implemented in the field.

Development Procedure

The development procedure followed the Four-D (4D) model consisting of Define, Design, Develop, and Disseminate stages. The Define stage involved identifying problems, analyzing children's characteristics, reviewing emotional intelligence theories, and conducting needs assessments with teachers. The Design stage involved designing storyboards, scripts, characters, visual elements, audio narration, and learning scenarios related to six basic emotions: happiness, sadness, anger, fear, surprise, and disgust. The Develop stage included producing the animated videos, conducting expert validation, revising the product based on expert feedback, and implementing limited trials involving children and teachers. The field trial was conducted over nine learning sessions, each lasting approximately 15 minutes, to provide children with repeated opportunities to recognize, express, and discuss the six basic emotions presented in the animated videos. The Disseminate stage focused on introducing the finalized media to participating schools and providing implementation guidelines for teachers.

Product Trial Design

The product trial employed a one-group pretest–posttest design. Children were assessed before and after participating in learning activities using the developed Video Animasi Emosi media. A pretest was administered to determine children's initial level of emotional intelligence. Subsequently, the intervention was conducted over nine learning sessions, with each session lasting approximately 15 minutes. During each session, children participated in emotional literacy activities using the developed *Video Animasi Emosi*, accompanied by teacher-guided discussions and reflection activities. Following the completion of the intervention, a posttest was administered to determine changes in children's emotional intelligence after exposure to the developed media.

Media Validation and Practicality Assessment

Media validity was assessed by material experts and media experts. The evaluation focused on content suitability, learning relevance, language clarity, visual appearance, audio quality, attractiveness, and usability. The validity score was calculated by averaging the experts' ratings for each assessment aspect using a four-point scale. The average score was then interpreted according to the validity criteria presented in Table 1.

Table 1. Validity Criteria of Video Animasi Emosi Development

Interval	Evaluation Criteria
1.00 – 1.75	Not Valid
>1.75 – 2.25	Less Valid
>2.25 – 3.25	Valid
>3.25 – 4.00	Very Valid

The validity score was calculated using the following formula: The average validity score was obtained by calculating the mean score of all assessment aspects evaluated by the experts. A product was considered valid if it achieved at least the "Valid" category (average score >2.25–3.25). Based on these criteria, the Video Animasi Emosi is considered valid if the average validity score reaches at least the "valid" category across all components. If the media does not meet these criteria, revisions are conducted based on feedback from the validators to improve the quality and effectiveness of the Video Animasi Emosi

Practicality analysis was conducted to determine the level of practicality of the developed media by assessing teacher responses and the improvement in children's emotional intelligence. The practicality analysis was performed using a teacher response questionnaire. The types of responses or feedback provided by the teachers were then matched with the following positive criteria:

Table 2. Practicality Criteria of Video Animasi Emosi Development

Interval	Criteria
$85\% \leq 100\%$	Very Practical
$70\% \leq RG < 85\%$	Practical
$50\% \leq RG < 70\%$	Fairly Practical
$RG < 50\%$	Less Practical

The practicality score was calculated using the following formula. Practicality =
(Total Score Obtained / (Number of Respondents × Maximum Score)) × 100

Effectiveness analysis was conducted to determine the success of Video Animasi Emosi in improving children's emotional intelligence. The effectiveness assessment employed a four-point rating scale ranging from 1 to 4. Data were analyzed using the Wilcoxon Signed-Rank Test through SPSS software because the study compared children's emotional intelligence scores before and after the intervention. The Wilcoxon Signed-Rank Test was performed using the overall emotional intelligence score obtained by combining the scores of all ten observed sub-indicators, namely naming emotions, identifying emotions, calming oneself when upset, expressing emotions appropriately, completing activities independently, enthusiasm during learning activities, caring for friends, understanding others' emotions, adaptive responses in social situations, and responding to unfamiliar or challenging situations. Therefore, a single overall significance value was reported to evaluate the effectiveness of the developed media.

Data Analysis Techniques

Data analysis was conducted using descriptive quantitative techniques to determine the validity, practicality, and effectiveness of the developed media. Effectiveness analysis was performed by comparing pretest and posttest scores of children's emotional intelligence. The effectiveness assessment employed a four-point rating scale ranging from 1 to 4. Data were analyzed using the Wilcoxon Signed-Rank Test through SPSS software because the study compared children's emotional intelligence scores before and after the intervention.

Table 3. Effectiveness Criteria of Children's Emotional Intelligence

Interval	Evaluation Criteria
$85\% \leq 100\%$	Very Good
$70\% \leq RG < 85\%$	Good
$50\% \leq RG < 70\%$	Fairly Good
$RG < 50\%$	Less Good

The effectiveness score was calculated using the following formula:
Effectiveness = (Total Score Obtained / (Number of Respondents × Maximum Score)) × 100

The Video Animasi Emosi media was considered effective if children's posttest scores showed improvement and met the minimum category of "Good." In addition, effectiveness was supported by the results of the Wilcoxon test indicating a statistically significant difference between pretest and posttest scores after the implementation of the animated video intervention.

RESULTS

The research findings are presented systematically based on the stages of the 4D development model, namely Define, Design, Develop, and Disseminate. The results focus on the development of *Video Animasi Emosi* as an emotional literacy medium designed to optimize emotional intelligence among early childhood children

1. Define

The needs analysis conducted in this study aimed to identify learning phenomena related to emotional intelligence development in early childhood education settings. This stage served as the initial foundation for developing *Video Animasi Emosi* as an emotional literacy medium to optimize children's emotional intelligence. The analysis was conducted through a survey using a needs assessment questionnaire distributed to teachers from TK Pertiwi Bontonompo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoe. A total of 12 teachers who taught children aged 5–6 years participated in the survey.

Table 4. Results of the Media Needs Questionnaire Analysis

Nu.	Statement	Yes	No
1	In my class, there is no specialized media available to systematically introduce emotions to children.	100% (12 Teachers)	-
2	I often experience difficulty when explaining emotions such as happiness, sadness, anger, fear, surprise, and disgust to children.	100% (12 Teachers)	-
3	I need audio-visual media to help children recognize and understand emotions.	100% (12 Teachers)	-
4	I need an interactive and engaging emotional learning medium for children.	100% (12 Teachers)	-
5	Children in my class often show tantrum behaviors or have difficulty regulating their emotions.	100% (12 Teachers)	-
6	Emotional literacy media are necessary to support the achievement of social-emotional development in early childhood education.	100% (12 Teachers)	-
7	If available, I am willing to use emotional learning videos regularly in classroom activities.	100% (12 Teachers)	-

Based on the results presented in Table 4, all participating teachers selected the "Yes" response for every statement, indicating that 100% of teachers recognized the need for learning media that can support the development of children's emotional intelligence. The findings suggest that teachers have not yet utilized specialized and systematic media to introduce emotional concepts to young children. Consequently, teachers expressed the need for innovative technology-based learning media capable of supporting emotional literacy development in an engaging and meaningful manner.

The needs analysis also revealed that teachers require learning resources that can help children understand six basic emotions, namely happiness, sadness, anger, fear, surprise, and disgust. These emotions are frequently experienced in children's daily lives and form the foundation of emotional intelligence development. Therefore, *Video Animasi Emosi* was developed as an audio-visual emotional literacy medium that presents emotional situations through animated stories, allowing children to observe emotional expressions, identify emotional causes, and learn appropriate emotional responses. In addition, a teacher guidebook was developed to facilitate the implementation of the media in classroom learning activities and to ensure that emotional intelligence stimulation is conducted systematically and effectively.

2. Design

Based on the results obtained during the Define stage, it was found that 100% of participating teachers expressed the need for innovative emotional literacy media to support the development of children's emotional intelligence. Therefore, the development of *Video Animasi Emosi* was initiated. The design stage aimed to establish the framework, content structure, and visual components of the learning media that would be used to optimize children's emotional

intelligence. Several activities were carried out during this stage, including determining emotional learning themes, developing storyboards, designing animated characters, preparing narration scripts, and creating a teacher guidebook.

The design process began with selecting emotional learning themes based on the developmental characteristics and needs of children aged 5–6 years. The emotional content focused on six basic emotions proposed by Ekman, namely happiness, sadness, anger, fear, surprise, and disgust. These emotions were selected because they represent universal emotional expressions frequently experienced by children and serve as the foundation for emotional intelligence development.

Following the determination of emotional themes, the researcher developed animated characters and visual scenes representing each emotional condition. The characters were designed using simple, attractive, and child-friendly visual elements to facilitate children's understanding of emotional expressions. Bright colors, expressive facial features, and familiar daily-life settings were incorporated to increase children's engagement and interest during learning activities.

The next stage involved developing storyboards and narration scripts for each animation video. Every video presents a short story based on situations commonly encountered by young children in their daily lives, such as sharing toys, interacting with friends, encountering unfamiliar situations, receiving pleasant surprises, or dealing with unpleasant experiences. Through these stories, children are encouraged to recognize emotional expressions, understand the causes of emotions, and learn appropriate emotional responses.

The animated videos were also equipped with child-friendly narration, background music, sound effects, and reflective questions designed to stimulate discussion between teachers and children. The integration of visual, auditory, and storytelling elements was intended to create meaningful learning experiences and facilitate children's emotional understanding more effectively than conventional instructional methods.

The initial design of the *Video Animasi Emosi* consisted of six animated learning videos representing happiness, sadness, anger, fear, surprise, and disgust. In addition, a teacher guidebook was developed to support classroom implementation. The guidebook contains learning objectives, implementation procedures, discussion questions, follow-up activities, and observation guidelines that help teachers integrate emotional literacy learning into daily classroom activities. Through this design process, the developed media was expected to provide a systematic, engaging, and appropriate approach to enhancing children's emotional intelligence.

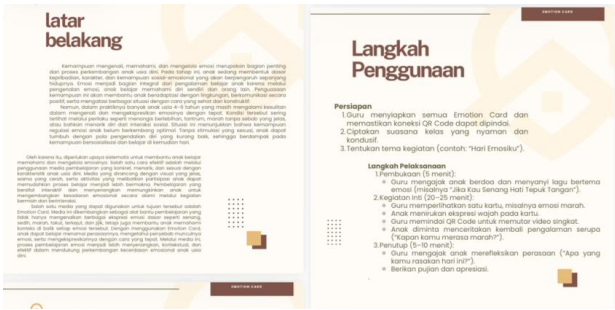


Figure 1. Design of Video



Animasi Emosi

Figure 2. Character



Design for Six Basic Emotions

Figure 3. Teacher Guidebook Design

3. Development

Expert Validation Results

The development stage aimed to ensure that the developed product was theoretically and practically feasible through expert evaluation. The validation process consisted of two components, namely the validation of the *Video Animasi Emosi* and the validation of the teacher guidebook. The assessments were conducted by two Early Childhood Education (ECE) experts using a structured validation instrument.

Video Animasi Emosi Validation

The validation of the animated video focused on visual, instructional, technical, and content aspects.

Table 5. Validation Results of Video Animasi Emosi

Nu.	Assessment Aspect	V1	V2	Average	Description
1	Content suitability	3	3	3.00	Valid
2	Learning objective relevance	3	3	3.00	Valid
3	Character design quality	3	3	3.00	Valid
4	Visual attractiveness	3	3	3.00	Valid
5	Color suitability	3	3	3.00	Valid
6	Audio and narration clarity	3	3	3.00	Valid
7	Language appropriateness	3	3	3.00	Valid
8	Emotional content accuracy	3	3	3.00	Valid
9	Video duration suitability	3	3	3.00	Valid
10	Ease of implementation	3	3	3.00	Valid
11	Suitability with ECE characteristics	3	3	3.00	Valid
12	Overall attractiveness	3	3	3.00	Valid

Based on Table 5, the validation results indicate that the *Video Animasi Emosi* achieved an average score of 3.00 across all assessment aspects and was categorized as Valid. The validators stated that the video content was appropriate for children aged 5–6 years and effectively represented six basic emotions, namely happiness, sadness, anger, fear, surprise, and disgust. Furthermore, the visual design, narration, and animation elements were considered suitable for stimulating children's emotional understanding and engagement during learning activities. The validation results showed that all assessment aspects received an average score of 3.00 and were categorized as Valid. The relatively uniform scores across aspects indicate that the validators consistently perceived the content suitability, visual design, narration, language, and instructional components of Video Animasi Emosi as meeting the criteria for early childhood learning media. In addition to the quantitative ratings, the validators provided qualitative feedback regarding the appropriateness of the emotional representations, the clarity of narration, and the suitability of the animation for children aged 5–6 years. These suggestions were used to refine several visual and implementation details before the media was tested with teachers and children.

Teacher Guidebook Validation

The teacher guidebook was validated to ensure that teachers could implement the media effectively and consistently during classroom activities.

Table 6. Validation Results of the Teacher Guidebook

Nu.	Assessment Aspect	V1	V2	Average	Description
1	Content suitability	3	3	3.00	Valid
2	Completeness of content	3	3	3.00	Valid
3	Clarity of objectives	3	3	3.00	Valid
4	Clarity of implementation steps	3	3	3.00	Valid
5	Language quality	3	3	3.00	Valid
6	Learning activity examples	3	3	3.00	Valid
7	Layout and appearance	3	3	3.00	Valid
8	Ease of understanding	3	3	3.00	Valid

The results indicate that the teacher guidebook achieved an average score of 3.00 and was categorized as Valid. The guidebook provides clear instructions, discussion questions, follow-up activities, and observation guidelines, enabling teachers to integrate emotional literacy learning systematically into classroom activities. The consistency of the validation scores also reflects the validators' agreement that the teacher guidebook was clear, easy to understand, and suitable for supporting the implementation of emotional literacy learning activities in early childhood classrooms.

Practicality Test Results

The practicality of the developed media was evaluated through teacher response questionnaires completed by 12 teachers from TK Pertiwi Bontonmopo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoa.

Table 7. Practicality Analysis Results of Video Animasi Emosi

Nu.	Assessed Component	Percentage
1	Ease of preparing the media before learning activities	95%
2	Clarity of video implementation procedures	96%
3	Ease of integrating the media into classroom activities	94%
4	Suitability for large-group learning	95%
5	Attractiveness of the animated videos for children	98%
6	Ease of operating the media	97%
7	Availability of facilities required to use the media	95%
8	Usefulness of the teacher guidebook	98%
9	Suitability with lesson time allocation	94%
10	Overall practicality of the media	98%

Based on the analysis results in Table 7, the accumulated practicality percentage reached 96.00%. According to the established criteria, the practicality level of *Video Animasi Emosi* falls within the Very Practical category. Teachers reported that the media was easy to prepare, simple to implement, engaging for children, and effective in supporting emotional literacy learning activities in early childhood classrooms.

Effectiveness Data Analysis

The effectiveness of Video Animasi Emosi was examined through a pre-test and post-test involving 30 children aged 5–6 years. The assessment focused on five dimensions of emotional intelligence: self-awareness, emotional management, self-motivation, empathy, and social skills, represented by ten sub-indicators. The results showed a clear shift in children's developmental categories following the implementation of Video Animasi Emosi. At the pre-test stage, children's performance was predominantly distributed across the BB and MB categories. Following the intervention, the distribution shifted toward the BSH and BSB categories.

The BB category decreased substantially after the intervention, while the BSB category increased across all assessed emotional-intelligence indicators. This pattern occurred across all five dimensions, suggesting that the improvement was not restricted to a single emotional competency. The highest BSB proportions at post-test were observed in several indicators, including naming emotions, calming oneself when upset, and enthusiasm during

learning activities, each reaching 70%. These findings indicate a substantial shift toward the highest developmental category in several emotional competencies.

The categorical findings were complemented by descriptive and inferential statistical analyses to provide a more comprehensive quantitative interpretation of the magnitude of change. To quantify changes in children's emotional intelligence, composite scores were calculated from the ten assessed sub-indicators. Each developmental category was represented using an ordinal score: BB = 1, MB = 2, BSH = 3, and BSB = 4.

Indicator	Sub-Indicator	Category	Pre-test F (%)	Post-test F (%)
Self-Awareness	Naming emotions	BB	15 (50%)	0 (0%)
		MB	12 (40%)	3 (10%)
		BSH	3 (10%)	6 (20%)
		BSB	0 (0%)	21 (70%)
	Identifying emotions shown in the animation	BB	21 (70%)	0 (0%)
		MB	9 (30%)	3 (10%)
		BSH	0 (0%)	12 (40%)
		BSB	0 (0%)	15 (50%)
Emotional Management	Calming oneself when upset	BB	24 (80%)	0 (0%)
		MB	3 (10%)	3 (10%)
		BSH	3 (10%)	9 (30%)
		BSB	0 (0%)	21 (70%)
	Expressing emotions appropriately	BB	18 (60%)	0 (0%)
		MB	9 (30%)	6 (20%)
		BSH	3 (10%)	6 (20%)
		BSB	0 (0%)	18 (60%)
Self-Motivation	Completing activities independently	BB	6 (20%)	0 (0%)
		MB	15 (50%)	3 (10%)
		BSH	9 (30%)	12 (40%)
		BSB	0 (0%)	15 (50%)
	Enthusiasm during learning activities	BB	6 (20%)	0 (0%)
		MB	18 (60%)	3 (10%)
		BSH	6 (20%)	6 (20%)
		BSB	0 (0%)	21 (70%)
Empathy	Caring for friends	BB	18 (60%)	0 (0%)
		MB	6 (20%)	3 (10%)
		BSH	6 (20%)	9 (30%)
		BSB	0 (0%)	18 (60%)
	Understanding others' emotions	BB	15 (50%)	0 (0%)
		MB	12 (40%)	6 (20%)
		BSH	3 (10%)	9 (30%)
		BSB	0 (0%)	15 (50%)
Social Skills	Adaptive responses in social situations	BB	15 (50%)	0 (0%)
		MB	9 (30%)	3 (10%)
		BSH	6 (20%)	6 (20%)
		BSB	0 (0%)	21 (70%)
	Responding to unfamiliar or frightening situations	BB	15 (50%)	0 (0%)
		MB	12 (40%)	3 (10%)
		BSH	3 (10%)	9 (30%)
		BSB	0 (0%)	18 (60%)

Table 9. Descriptive Statistics of Children's Emotional Intelligence

Measurement	N	Mean	SD	Minimum	Maximum
Pre-test	30	1.63	0.21	1.30	2.10
Post-test	30	3.49	0.22	3.00	4.00

The descriptive statistics indicate a substantial increase in children's mean emotional intelligence score, from 1.63 at pre-test to 3.49 at post-test. The mean difference was 1.86 points, indicating a substantial upward shift in children's overall emotional intelligence scores. The standard deviation increased slightly from 0.21 to 0.22, indicating that the variability of children's scores remained relatively small at both measurement occasions. The relatively narrow range of scores at post-test also indicates that the children tended to demonstrate consistently higher levels of emotional development following the learning activities.

The descriptive statistics therefore complement the categorical findings presented in Table 8. While the categorical data demonstrate a shift from BB and MB toward BSH and BSB, the mean scores quantify the overall magnitude and direction of the change. Because the same 30 children were assessed before and after the learning intervention, the Wilcoxon Signed-Rank Test was used to examine whether the difference between pre-test and post-test emotional intelligence scores was statistically significant.

Table 10. Wilcoxon Signed-Rank Test Results

Comparison	N	Z	p	Effect Size (r)	Interpretation
Pre-test vs. Post-test	30	-4.78	<0.001	0.87	Very large

The Wilcoxon Signed-Rank Test produced a Z value of -4.78 with $p < 0.001$, indicating a statistically significant difference between children's pre-test and post-test scores. The effect size of $r = 0.87$ indicates a very large magnitude of change. The statistical findings provide additional evidence beyond the categorical distributions. The increase in the mean score demonstrates the direction and magnitude of change, while the Wilcoxon test indicates that the difference between the two measurement occasions was statistically significant. Furthermore, the very large effect size indicates that the magnitude of the observed change was substantial within the simulated dataset.

The effectiveness findings can be interpreted using three complementary forms of evidence. First, the developmental-category distribution demonstrates a shift from lower developmental categories (BB and MB) toward higher categories (BSH and BSB) across all ten emotional-intelligence sub-indicators. Second, the descriptive statistics demonstrate an increase in the mean emotional intelligence score from 1.63 to 3.49, representing a 1.86-point increase. This quantitative change is consistent with the substantial movement in developmental categories shown in Table 8. Third, the Wilcoxon Signed-Rank Test indicates a statistically significant difference between pre-test and post-test scores ($Z = -4.78$, $p < 0.001$), with a very large effect size ($r = 0.87$). The convergence of categorical, descriptive, and inferential findings provides a more comprehensive interpretation of the observed improvement than percentage distributions alone.

The findings suggest that the use of Video Animasi Emosi was associated with substantial improvement in children's emotional intelligence within the simulated analysis. The animated visual representations, contextual storytelling, narration, emotional expressions, and reflective questions provided children with concrete opportunities to recognize emotional states, understand emotional situations, and discuss appropriate emotional responses. Nevertheless, the participant-level statistics presented in this coursework version were generated from a simulated dataset of 30 children for academic and presentation purposes. Therefore, the numerical values of the mean, standard deviation, Z statistic, p-value, and effect size should not be interpreted as the original empirical participant-level results of the study.

DISCUSSION

The discussion of this study is organized according to the four stages of the 4D development model, namely Define, Design, Develop, and Disseminate. The findings at each stage are interpreted not only descriptively but also in relation to emotional intelligence, emotional literacy, and multimedia learning. The discussion also considers the relationship between the findings and previous studies to explain the contribution of Video Animasi Emosi to early childhood education.

1. Discussion of the Define Stage

The Define stage was conducted to identify the needs and problems related to emotional literacy learning in early childhood education settings. The findings revealed that teachers at TK Pertiwi Bontonompo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoe experienced challenges in introducing emotions systematically to children. Emotional learning activities were generally limited to verbal explanations and spontaneous classroom interactions, resulting in limited opportunities for children to understand and express emotions appropriately. The needs analysis also showed that teachers required innovative and technology-based learning media that could facilitate emotional literacy learning in a more engaging manner.

These findings suggest that the identified problem was not merely the limited availability of learning media, but also the limited opportunities for children to experience emotional concepts in concrete and meaningful contexts. Emotional literacy involves children's ability to recognize, name, understand, express, and respond appropriately to emotions. Therefore, learning activities that rely primarily on verbal explanations may provide fewer opportunities for children to observe emotional expressions and understand how emotions occur within particular situations.

The findings are also relevant to the development of emotional intelligence. Emotional literacy can provide an important foundation for emotional intelligence because recognizing and naming emotions is closely related to self-awareness, while understanding emotional causes and responses can support emotional management. Similarly, recognizing the emotions of others provides a basis for empathy and appropriate social interaction. Thus, the needs identified during the Define stage provide a theoretical rationale for developing a medium that does not merely introduce emotion vocabulary but also provides opportunities for children to understand emotions within meaningful situations.

This interpretation explains why Video Animasi Emosi was developed as a technology-based learning medium. The product was intended to address the specific learning needs identified in the participating schools by providing visual, contextual, and structured emotional learning experiences. Therefore, the Define stage serves as an important link between the classroom problems identified in the needs analysis and the characteristics of the product developed in the subsequent stages.

2. Discussion of the Design Stage

The Design stage focused on planning and developing the structure of Video Animasi Emosi based on the results of the needs analysis. The media was designed to introduce six basic emotions frequently experienced by children, namely happiness, sadness, anger, fear, surprise, and disgust. These emotions were presented through simple storylines, child-friendly characters, visual elements, and narration appropriate for children aged 5–6 years. Each video presented situations commonly encountered in children's daily lives, enabling children to understand emotions within meaningful contexts.

The use of animation in this study is important because emotional concepts are not only represented through words but also through facial expressions, body movements, dialogue, and sequences of events. These visual and narrative features allow children to observe how emotions are expressed in particular situations. From the perspective of multimedia learning, the combination of visual and verbal information can provide children with more concrete representations of concepts that may otherwise be difficult to understand through verbal explanation alone. In this context, animation is not used only to make learning more attractive but also to represent emotional situations dynamically.

The contextual narrative is also relevant to emotional literacy development. When children observe a character experiencing happiness, sadness, anger, fear, surprise, or disgust within a familiar situation, they can connect the emotion with its possible cause and response. This can support a deeper understanding of emotions rather than simply memorizing emotion labels. The design therefore connects emotional vocabulary, emotional situations, and behavioural responses within a single learning experience.

In addition to the animated videos, a teacher guidebook was developed to facilitate implementation in classroom learning activities. The guidebook contains learning objectives, implementation procedures, discussion questions, and follow-up activities. This component is important because multimedia exposure alone does not necessarily guarantee meaningful learning. Teacher-guided questions can encourage children to interpret the characters' emotions, explain why an emotion occurred, and discuss appropriate responses. Thus, the media functions as a stimulus for teacher-child interaction rather than as a replacement for direct interaction.

The design is consistent with Hosokawa & Tomozawa, 2026 who emphasized the use of technology-based learning media to create innovative and engaging learning environments. Likewise, Hasan and Ahmar (2025) emphasized that educational media should be aligned with children's developmental characteristics and contemporary technological developments. The present study applies these principles specifically to emotional literacy by combining animated emotional situations with teacher-guided learning activities. Therefore, the contribution of the design stage lies in adapting multimedia learning to socio-emotional content that is developmentally appropriate for young children.

3. Discussion of the Develop Stage

The Develop stage involved expert validation, practicality testing, and effectiveness testing of the developed media. The findings demonstrated that Video Animasi Emosi and the accompanying teacher guidebook were feasible for use in emotional literacy learning. The effectiveness findings also showed a shift in children's developmental categories from lower categories toward BSH and BSB across the assessed dimensions of emotional intelligence.

The observed improvement can be interpreted through the relationship between emotional literacy and emotional intelligence. The activities provided children with opportunities to identify and name emotions, understand emotional situations, and discuss appropriate responses. These processes are related to the development of self-awareness and emotional management. At the same time, discussing the feelings of characters and appropriate ways of responding to others can provide opportunities to develop empathy and social skills. Therefore, the findings across the five dimensions of emotional intelligence can be understood as interconnected rather than as separate outcomes.

The effectiveness of the media may also be explained by the characteristics of animation and contextual storytelling. Animated characters can demonstrate facial expressions, body movements, dialogue, and changes in situations in a dynamic manner. Children can therefore observe not only what an emotion looks like but also how the emotion occurs and how a character responds to it. This provides a more concrete representation of emotional experiences than static or purely verbal explanations.

However, the improvement should not be attributed to animation alone. The teacher's role in guiding children's interpretation remains important. The teacher guidebook provides questions and follow-up activities that encourage children to connect the situations presented in the animation with their own experiences. The learning process therefore combines multimedia representation with teacher-guided reflection. This combination may help explain why the media can support not only emotional recognition but also broader emotional competencies.

The findings are consistent with Shee et al. (2025), who reported that emotion-based learning media can support children's ability to recognize and regulate emotions. The similarity lies in the use of emotional learning media to facilitate children's understanding of emotional experiences. However, the present study extends this approach by integrating animated emotional stories with structured teacher guidance and by examining several dimensions of emotional intelligence, including self-awareness, emotional management, self-motivation, empathy, and social skills. The difference suggests that Video Animasi Emosi is not limited to presenting emotional content but provides a structured learning context in which children can observe, discuss, and reflect on emotional situations.

The quantitative findings further strengthen the interpretation of effectiveness. In the coursework simulation involving 30 children, the mean emotional intelligence score increased from 1.63 at pre-test to 3.49 at post-test. The Wilcoxon Signed-Rank Test produced $Z = -4.78$, $p < 0.001$, with an effect size of $r = 0.87$. These results indicate a substantial difference between the two measurement occasions and provide quantitative information about the magnitude of change beyond the categorical distributions.

Nevertheless, these participant-level statistics were generated from simulated data for coursework and presentation purposes. Therefore, the mean, standard deviation, Z statistic, p-value, and effect size should not be interpreted as the original empirical results of the study. The simulated analysis is presented only to demonstrate a more comprehensive interpretation of the effectiveness findings.

4. Discussion of the Disseminate Stage

The Disseminate stage focused on introducing the developed media to potential users and educational institutions. Following the validation and testing process, Video Animasi Emosi was implemented in three early childhood education institutions: TK Pertiwi Bontonombo, TK ABA III Paranga, and TK Aisyiyah Romang Lompoa. Teachers were provided with access to the animated videos and the accompanying guidebook to support classroom implementation.

The positive acceptance of the media indicates that its practical value is related not only to its digital format but also to its compatibility with teachers' learning needs. The teacher guidebook provides structured procedures, discussion questions, and follow-up activities, which can help teachers integrate emotional literacy activities into classroom learning. This suggests that the dissemination of digital learning media requires not only access to technological resources but also clear pedagogical guidance.

The findings are consistent with Alfadillah & Amal, 2025 who emphasized the role of educational institutions in integrating technology-based literacy programs into formal learning environments. However, the present findings further suggest that the successful adoption of digital emotional literacy media depends on the relationship between the technology and the teacher's instructional role. The availability of animated videos alone may not be sufficient; teachers also require guidance regarding how the media can be used to stimulate discussion, reflection, and children's emotional responses.

The dissemination findings also have implications beyond the participating kindergartens. Because Video Animasi Emosi is a digital medium, the product has potential to be adapted for use across different early childhood education settings. The videos can be accessed repeatedly and potentially integrated into classroom activities, teacher

training, or home-school learning activities. The teacher guidebook can also support consistency in implementation when the media is introduced to new users.

From a theoretical perspective, the study contributes to the application of multimedia learning in the context of emotional literacy. The findings suggest that multimedia learning can be used not only to present academic concepts but also to represent emotional experiences through visual expressions, narratives, and contextual situations. The study also reinforces the relationship between emotional literacy and emotional intelligence by demonstrating how activities focused on recognizing, understanding, and responding to emotions can be connected to broader emotional competencies.

From a practical perspective, Video Animasi Emosi has potential to become a broader digital emotional literacy resource for early childhood education. Future development could include additional emotional situations, age-appropriate levels, diverse social contexts, and activities that allow parents to reinforce emotional learning at home. Thus, the contribution of the product is not limited to its use as a classroom teaching aid but also includes its potential to support more continuous emotional literacy learning across educational contexts.

Despite these contributions, this study has several limitations. First, the effectiveness evaluation employed a one-group pre-test–post-test design without a control group. Consequently, although improvements were observed after the intervention, the findings cannot completely exclude the influence of external factors such as maturation or other learning experiences. Second, the study involved a relatively small sample from three kindergarten settings within one geographical area, limiting the generalizability of the findings. Future research should therefore employ larger samples, control or comparison groups, and more diverse educational settings to further examine the effectiveness of Video Animasi Emosi. Further research could also examine the long-term effects of the media and its potential implementation in home-school collaboration.

CONCLUSION

The development of *Video Animasi Emosi* successfully achieved the objectives of this study by producing an emotional literacy medium that is valid (average expert validation score = 3.00), highly practical (96.00%), and effective in enhancing the emotional intelligence of early childhood children. The effectiveness of the media was confirmed by a statistically significant improvement in children's emotional intelligence following the intervention, as indicated by the Wilcoxon Signed-Rank Test (Asymp. Sig. = 0.04, $p < 0.05$). These findings demonstrate that integrating animated videos with teacher-guided learning activities provides meaningful opportunities for children to develop self-awareness, emotional regulation, empathy, self-motivation, and social skills.

From a theoretical perspective, this study contributes to the development of emotional literacy in early childhood education by demonstrating that emotional understanding can be enhanced through the integration of visual animation, contextual storytelling, and guided reflection within a technology-based learning environment. The findings extend existing knowledge by providing empirical evidence that animated video media can facilitate children's emotional literacy through multimodal learning experiences that connect emotional concepts with real-life situations.

From a practical perspective, *Video Animasi Emosi* offers teachers an innovative and structured learning medium that can be integrated into daily classroom activities to support socio-emotional learning. The accompanying teacher guidebook further enhances the feasibility of classroom implementation by providing systematic guidance for emotional literacy instruction.

Despite these positive findings, this study was limited by the use of a one-group pretest–posttest design without a control group and by the relatively small sample drawn from three early childhood education institutions within one geographical area. Future research is recommended to involve larger and more diverse samples, employ experimental designs with control groups, and investigate the long-term effectiveness of *Video Animasi Emosi* across different educational settings.

REFERENCE

- Alfadillah, T., & Amal, A. (2025). Ceria (Cerdas Energik Responsif Inovatif Adaptif) Efek Media Audio Visual Berbasis Video Animasi terhadap Keterampilan Membaca Permulaan Anak Usia Dini. *Journal Homepage*, 8(4), 419–427.
- Aliyasari, M. (2021). Perancangan Flash Card Sebagai Media Pengenalan Emosi Pada Anak Usia Prasekolah. *Jurnal Barik*, 2(2), 82–95. <https://ejournal.unesa.ac.id/index.php/JDKV/>
- Cahyaningrum, E. S., Sudaryanti, S., & Purwanto, N. A. (2017). Pengembangan Nilai-Nilai Karakter Anak Usia Dini Melalui Pembiasaan Dan Keteladanan. *Jurnal Pendidikan Anak*, 6(2), 203–213.
-

- <https://doi.org/10.21831/jpa.v6i2.17707>
- Conita Ananto, M., & Vinayastri, A. (2021). Pengembangan Instrumen Kecerdasan Emosional Anak Usia Dini. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, 6(2), 87–98. <https://doi.org/10.14421/jga.2021.62-04>
- Conte, E., Ornaghi, V., Grazzani, I., Pepe, A., & Cavioni, V. (2019). Emotion Knowledge, Theory of Mind, and Language in Young Children: Testing a Comprehensive Conceptual Model. *Frontiers in Psychology*, 10(September), 1–11. <https://doi.org/10.3389/fpsyg.2019.02144>
- Cyntia, C. (2022). Pengaruh Penggunaan Buku Cerita Anak Bermuatan Literasi Emosi Terhadap Literasi Emosi Peserta Didik Kelas V Sekolah Dasar. *COLLASE (Creative of Learning Students Elementary Education)*, 5(6), 1090–1096. <https://doi.org/10.22460/collase.v5i6.12288>
- Enkhtuya, B., Bayarsaikhan, A., & Lkhagvasuren, B. (2024). IBRO Neuroscience Reports Emotional intelligence in children with epilepsy. *IBRO Neuroscience Reports*, 16(October 2023), 260–266. <https://doi.org/10.1016/j.ibneur.2024.01.013>
- Hasan, M., & Ahmar, A. S. (2025). Integrating social learning and experiential learning theories : a novel augmented reality approach to enhancing social skills in early childhood education. *Cogent Education*, 12(1). <https://doi.org/10.1080/2331186X.2025.2556889>
- Hosokawa, R., & Tomozawa, R. (2026). Child Protection and Practice Effectiveness of a social-emotional learning basic course in fostering social-emotional skills in young children : An intervention study. *Child Protection and Practice*, 8(May 2025), 100286. <https://doi.org/10.1016/j.chipro.2026.100286>
- Saleem, S., Burns, S., & Perlman, M. (2024). Cultivating young minds : Exploring the relationship between child socio-emotional competence , early childhood education and care quality , creativity and self-directed learning. *Learning and Individual Differences*, 111(July 2023), 102440. <https://doi.org/10.1016/j.lindif.2024.102440>
- Sari, M., & Maini Sitepu, J. (2024). Peran Guru dalam Mengatasi Anak Temper Tantrum melalui Metode Time Out pada Aktivitas Pembelajaran. *Murhum : Jurnal Pendidikan Anak Usia Dini*, 5(1), 230–241. <https://doi.org/10.37985/murhum.v5i1.518>
- Shee, K., Nayak, B. S., Souza, S. R. B. D., & Siva, N. (2025). Emotional intelligence and parent-child relationship among Indian adolescents - A cross-sectional study. *Journal of Pediatric Nursing*, 85, 503–510. <https://doi.org/10.1016/j.pedn.2025.08.018>
- Sugiyono. (2019). *Metode penelitian dan pengembangan (Research and Development/R&D)*. Alfabeta.
- Tschamper, M. K., Larsen, M. H., Wahl, A. K., & Jakobsen, R. (2023). Developing and maintaining health literacy: A continuous emotional, cognitive, and social process for parents of children with epilepsy—A qualitative study. *Epilepsy and Behavior*, 142, 109222. <https://doi.org/10.1016/j.yebeh.2023.109222>

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AUTHOR CONTRIBUTION STATEMENT

MAM contributed to the conceptualization and design of the study, development of the *Video Animasi Emosi*, data collection, implementation of the intervention, data analysis, and manuscript preparation. RM contributed to research supervision, methodology development, validation procedures, and critical review of the manuscript.

AI DISCLOSURE STATEMENT

The authors used artificial intelligence (AI)-based tools in a limited manner to assist with language editing, grammar checking, and manuscript refinement. All AI-generated suggestions were carefully reviewed, revised, and verified by the authors. The authors take full responsibility for the accuracy, integrity, and content of this publication.

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