

Development of Story-Based Emotional Picture Puzzle Media to Improve Early Childhood Emotional Expression Skills

Mukarramah^{1✉}, Rusmayadi², Herlina³, Herman⁴, Azizah Amal⁵

^{1,2,3,4,5}Universitas Negeri Makassar, Indonesia

Email: muma105451101116@unismuhmakassar.ac.id
10.31958/jies.v6i2.17245

Article info

Abstract

Article History

Received:

18/06/2026

Revised:

24/06/2026

Accepted:

05/07/2026



Corresponding author

This study aims to: 1) identify the needs of children and teachers regarding story-based emotion picture puzzle media to train early childhood emotional expression skills, 2) develop the design of story-based emotion picture puzzle media to train early childhood emotional expression skills, and 3) determine the validity, practicality, and effectiveness of the story-based emotion picture puzzle media in improving early childhood emotional expression skills. This research is a development study using the ADDIE model, which consists of five stages: analysis, design, development, implementation, and evaluation. Data collection techniques in this study include observation, interviews, documentation, validation sheets, teacher response questionnaires, and instruments for assessing children's emotional expression skills. The subjects of this study were early childhood children and teachers at TK Aisyiyah Pammase. The data were analyzed using descriptive qualitative and quantitative analysis techniques. The results of the study show that: 1) the story-based emotion picture puzzle media is highly needed because children still have difficulty recognizing, understanding, and expressing emotions appropriately, while teachers need attractive, concrete, and easy-to-use learning media; 2) the media design was developed in the form of emotion picture puzzles accompanied by simple stories and a teacher's guidebook; 3) the level of validity of the media obtained an average score of 86.38% with a very valid category, the level of practicality based on teacher responses obtained 99.11% with a very practical category, and the effectiveness of the media showed an increase in children's emotional expression skills after using the media. Therefore, the story-based emotion picture puzzle media is declared valid, practical, and effective for training early childhood emotional expression skills.

Keywords: *Puzzle Media, Early Childhood Emotions, Emotional Expression Skills, Learning Media Development.*

Penelitian ini bertujuan untuk: 1) mengetahui gambaran kebutuhan anak dan guru terhadap media puzzle bergambar emosi berbasis cerita untuk melatih keterampilan ekspresi emosi anak usia dini, 2) mengetahui rancangan pengembangan media puzzle bergambar emosi berbasis cerita untuk melatih keterampilan ekspresi emosi anak usia dini, 3) mengetahui tingkat kevalidan, kepraktisan, dan keefektifan media puzzle bergambar emosi berbasis cerita dalam meningkatkan keterampilan ekspresi emosi anak usia dini. Jenis penelitian ini adalah penelitian pengembangan dengan model ADDIE yang terdiri atas tahap analysis, design, development, implementation, dan evaluation. Teknik

pengumpulan data dalam penelitian ini meliputi observasi, wawancara, dokumentasi, lembar validasi, angket respon guru, dan instrumen penilaian keterampilan ekspresi emosi anak. Subjek dalam penelitian ini terdiri atas anak usia dini dan guru di TK Aisyiyah Pammase. Teknik analisis data yang digunakan adalah analisis deskriptif kualitatif dan kuantitatif. Hasil penelitian menunjukkan bahwa: 1) media puzzle bergambar emosi berbasis cerita sangat dibutuhkan karena anak masih mengalami kesulitan dalam mengenali, memahami, dan mengekspresikan emosi secara tepat, sedangkan guru membutuhkan media pembelajaran yang menarik, konkret, dan mudah digunakan, 2) rancangan media dikembangkan dalam bentuk puzzle bergambar emosi yang dilengkapi cerita sederhana dan buku panduan penggunaan bagi guru, 3) tingkat kevalidan media memperoleh hasil rata-rata 86,38% dengan kriteria sangat valid, tingkat kepraktisan berdasarkan respon guru memperoleh hasil 99,11% dengan kriteria sangat praktis, dan keefektifan media menunjukkan adanya peningkatan keterampilan ekspresi emosi anak setelah penggunaan media. Dengan demikian, media puzzle bergambar emosi berbasis cerita dinyatakan valid, praktis, dan efektif digunakan untuk melatih keterampilan ekspresi emosi anak usia dini.

Kata Kunci: Media Puzzle, Emosi Anak Usia Dini, Keterampilan Ekspresi Emosi, Pengembangan Media Pembelajaran.

INTRODUCTION

Early childhood education plays a crucial role in supporting children's holistic development by fostering cognitive, social, emotional, and behavioral competencies that serve as the foundation for lifelong learning. The successful implementation of the Merdeka Curriculum further emphasizes meaningful learning experiences that enable children to develop their interests, talents, and personal characteristics through active engagement and exploration. Such learning experiences require collaborative efforts among teachers, schools, and families to create supportive environments that facilitate children's overall development, including their social-emotional competencies (Yafie et al., 2024). Within this context, emotional development has become an increasingly important component of early childhood education because children's ability to understand, express, and regulate emotions directly influences their social interactions, learning experiences, and future well-being.

Social-emotional development during early childhood is closely associated with children's ability to recognize and express emotions appropriately. Emotional competencies enable children to adapt to their environments, establish positive relationships, demonstrate empathy, and participate effectively in social interactions. Research has consistently demonstrated that emotional intelligence contributes substantially to individual success and overall development, often exceeding the contribution of intellectual abilities alone (Dewi, 2020). Emotional development encompasses multiple interconnected dimensions, including emotional awareness, emotional expression, self-regulation, empathy, and interpersonal skills, all of which influence children's capacity to navigate everyday experiences and social situations

(Chintya & Sit, 2024). Consequently, providing appropriate learning experiences that foster emotional competence during the early years is essential for supporting children's long-term developmental outcomes.

The ability to express emotions represents a fundamental aspect of emotional intelligence because it allows children to communicate feelings, understand emotional experiences, and develop constructive relationships with others. Children who can appropriately express happiness, sadness, anger, fear, or disappointment tend to demonstrate better social adjustment, stronger self-confidence, and more effective emotional regulation. Conversely, difficulties in emotional expression may lead to frustration, behavioral problems, limited peer interactions, and challenges in adapting to social environments. Previous studies have emphasized that emotional expression develops gradually through social experiences, guided interactions, and educational activities that encourage children to identify, understand, and communicate their feelings effectively (Catala et al., 2023; Rusmayadi & Herman, 2019). Therefore, educational interventions that support emotional expression should be introduced during the early childhood period when emotional competencies are rapidly developing.

Storytelling has been widely recognized as an effective pedagogical approach for promoting emotional understanding and literacy among young children. Through stories, children are exposed to various emotional situations that help them recognize feelings, understand emotional causes and consequences, and develop empathy toward others. Narrative experiences enable children to connect emotional concepts with everyday situations, making emotional learning more meaningful and accessible (Catala et al., 2023; Batubara et al., 2023). Story-based learning also encourages children to discuss emotions, reflect on characters' experiences, and explore appropriate emotional responses in different social contexts. As a result, storytelling serves not only as a language development strategy but also as a powerful medium for fostering emotional awareness and expression.

In addition to storytelling, puzzle-based learning has attracted increasing attention as an educational medium capable of supporting children's cognitive, motor, and social-emotional development. Puzzle activities require concentration, problem-solving, perseverance, and collaboration, while simultaneously providing opportunities for children to interact with visual representations and contextual information. Previous studies have reported that puzzle-based learning can enhance emotional understanding, empathy, self-control, and social interaction among young children (Saleme et al., 2021; Alotaibi, 2024; Plotnikova et al., 2025). Emotional picture puzzles, in particular, allow children to recognize facial expressions, identify emotional states, and associate visual cues with emotional meanings. Such activities contribute to the development of emotional vocabulary and emotional awareness while maintaining children's engagement through play-based learning experiences.

Recent studies have demonstrated the effectiveness of emotional expression puzzles in helping children recognize basic emotions such as happiness, sadness, anger,

and fear, while simultaneously fostering empathy and social interaction (Lisma April Lia & Reni Suwenti, 2024). Similarly, storytelling-based interventions have been shown to improve children's emotional literacy, emotional understanding, and social-emotional competence by presenting emotionally meaningful narratives that reflect children's daily experiences (Kristsuana et al., 2021). Other studies have highlighted the potential of puzzle media to support motor development and contextual learning experiences through child-centered educational activities (Maylita et al., 2022; Maylita et al., 2025). Although these studies provide valuable evidence regarding the benefits of puzzles and storytelling for child development, most investigations have examined these approaches separately or have primarily focused on cognitive and motor outcomes rather than emotional expression skills.

Preliminary observations conducted in kindergarten settings revealed that many children still experience difficulties in expressing emotions appropriately. Children frequently demonstrate excessive emotional reactions, struggle to communicate their feelings, encounter challenges in peer interactions, and show limited ability to regulate emotional responses during social situations. Interviews with teachers and parents further indicated that existing instructional strategies have not yet produced sustainable improvements in children's emotional expression skills. Moreover, currently available learning media tend to emphasize academic development while providing limited opportunities for children to explore, recognize, and communicate emotions through interactive and engaging activities. These findings highlight the need for innovative educational media specifically designed to support emotional expression development among young children.

Despite growing interest in social-emotional learning, limited studies have integrated emotional picture puzzles and storytelling into a single instructional medium specifically designed to improve emotional expression skills among early childhood learners. Previous studies have largely focused on emotion recognition, emotional literacy, motor development, or storytelling activities independently, leaving a gap regarding the development of integrated media that simultaneously combines visual, tactile, and narrative learning experiences to facilitate emotional expression. Addressing this gap is important because young children learn most effectively through concrete, interactive, and meaningful activities that connect emotional experiences with play-based learning.

The novelty of this study lies in the development of a story-based emotional picture puzzle medium that integrates emotional visual representations, puzzle-solving activities, and storytelling experiences into a unified educational tool designed specifically to enhance children's emotional expression skills. Unlike previous studies that primarily focused on emotional recognition or isolated storytelling activities, the developed media encourages children not only to identify emotions but also to understand emotional contexts, communicate feelings, express emotional responses, and engage in social interactions through structured narrative experiences.

Therefore, this study aims to develop and evaluate the validity, practicality, and effectiveness of a story-based emotional picture puzzle medium for improving emotional expression skills among early childhood learners. The study seeks to provide an innovative educational resource that supports children's social-emotional development while offering teachers an engaging and developmentally appropriate medium for emotional learning.

METHODS

Research Design

This study employed a Research and Development (R&D) approach to develop and evaluate a story-based emotional picture puzzle medium designed to improve emotional expression skills among early childhood learners. Research and Development is a systematic method used to produce educational products and examine their effectiveness in addressing learning needs and developmental challenges. The study adopted the 4-D development model proposed by Thiagarajan, which consists of four stages: Define, Design, Develop, and Disseminate. This model was selected because it provides a structured framework for developing educational media while ensuring product quality through systematic validation, revision, and implementation processes. The final product developed in this study was a story-based emotional picture puzzle medium accompanied by a teacher guidebook to facilitate classroom implementation.

Research Setting and Participants

The study was conducted in an early childhood education institution where children demonstrated varying levels of emotional expression skills. Participants consisted of early childhood learners and teachers involved in the implementation and evaluation of the developed media. Participants were selected purposively based on their relevance to the objectives of the study. Children participated in learning activities using the developed media, while teachers provided information regarding classroom conditions, emotional development challenges, and the practicality of the product. The involvement of both teachers and children enabled the researchers to obtain comprehensive information regarding the suitability and effectiveness of the developed media for supporting emotional expression development.

Development Procedure

The development process followed the four stages of the 4-D model. During the define stage, observations and interviews were conducted to identify children's emotional expression difficulties, existing instructional practices, and the availability of learning media used to support social-emotional development. The findings indicated that many children experienced challenges in expressing emotions appropriately and that existing instructional media provided limited opportunities for emotional

exploration and communication. These findings formed the basis for developing a learning medium specifically designed to support emotional expression skills.

The design stage focused on developing the initial prototype of the story-based emotional picture puzzle medium. Learning objectives, emotional expression indicators, visual designs, storytelling content, and puzzle components were carefully selected and organized according to children's developmental characteristics. The stories incorporated emotional situations commonly experienced by children, while the puzzle components were designed to represent various emotional expressions that children could identify, discuss, and reconstruct during learning activities.

During the develop stage, the prototype was produced and subsequently evaluated by experts in early childhood education and educational media development. Validation focused on content appropriateness, visual design, language suitability, instructional effectiveness, and media usability. Suggestions provided by validators were used to revise and improve the product before implementation. The revised product consisted of emotional picture puzzles integrated with storytelling activities that encouraged children to identify emotions, understand emotional situations, communicate feelings, and express emotional responses appropriately.

The disseminate stage involved implementing the validated media in learning activities and introducing its use to teachers. The media was applied in classroom settings through guided storytelling and puzzle-solving activities. Teachers facilitated discussions regarding emotional situations presented in the stories and encouraged children to express their feelings verbally and nonverbally. The final product was accompanied by a user guide to support broader educational implementation and sustainability.

Data Collection

Data were collected through observations, interviews, questionnaires, and validation sheets. Observations were conducted to examine children's emotional expression behaviors, participation during learning activities, and responses to the developed media. Interviews with teachers were conducted to obtain information regarding existing instructional practices, children's emotional development challenges, and perceptions of the developed product. Questionnaires were administered to teachers and experts to evaluate the practicality and quality of the media. Validation sheets were used to assess the appropriateness of the developed product before implementation. These multiple sources of data enabled comprehensive evaluation of the media's quality and educational value.

Research Instruments

Several instruments were utilized in this study to evaluate the developed product. Validation sheets were used by experts to assess content relevance, media design, language suitability, and instructional quality. Teacher response questionnaires

were employed to evaluate practicality, usability, and overall satisfaction with the media. Observation sheets were used to assess children's emotional expression skills during learning activities, including their ability to recognize emotions, communicate feelings, respond to emotional situations, and interact appropriately with peers and teachers. Interview guidelines were also utilized to collect supporting qualitative data regarding the implementation of the media and its contribution to children's emotional development.

Data Analysis

Both qualitative and quantitative analyses were employed in this study. Qualitative data obtained from observations, interviews, and expert recommendations were analyzed descriptively to identify strengths, limitations, and areas requiring improvement. This analysis provided deeper insights into children's responses to the media and teachers' perceptions regarding its implementation.

Quantitative data were analyzed to determine the validity, practicality, and effectiveness of the story-based emotional picture puzzle medium. Validity was established through expert judgment, where specialists evaluated the extent to which the developed product represented the intended learning objectives and emotional expression indicators. Practicality was measured using teacher response questionnaires administered after implementation, while effectiveness was assessed based on children's emotional expression performance during learning activities.

RESULTS AND DISCUSSION

Results

Needs Analysis of Story-Based Emotional Picture Puzzle Media Development

The needs analysis was conducted to identify the necessity of developing a learning medium capable of supporting emotional expression skills among early childhood learners. Observations and interviews revealed that many children experienced difficulties in expressing emotions appropriately, communicating feelings, and responding to emotional situations in social interactions. Teachers also reported that the learning media currently used in classrooms primarily focused on cognitive and academic development, providing limited opportunities for children to explore and express emotions through meaningful activities. These findings indicated the need for an innovative learning medium that integrates emotional learning with play-based experiences.

Table 1. Teachers' Needs Analysis for the Development of Story-Based Emotional Picture Puzzle Media

Teacher	Actual Score	Percentage
T1	52	92%
T2	50	89%
T3	49	87%
T4	51	91%
Average	50.50	89.75%

The average score of 89.75% indicates a very high level of need for the development of story-based emotional picture puzzle media. Teachers agreed that interactive and emotionally focused learning media are necessary to support children's ability to recognize, communicate, and appropriately express emotions during learning activities.

Development of Story-Based Emotional Picture Puzzle Media

The development process followed the Define, Design, Develop, and Disseminate stages of the 4-D model. Based on the findings of the needs analysis, the researchers designed an educational medium integrating emotional picture puzzles with storytelling activities. The media was developed to encourage children to recognize emotional expressions, understand emotional situations, and communicate feelings through guided discussion and interactive play.

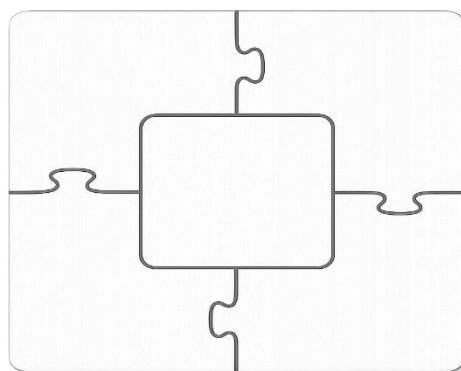


Figure 1. Initial Design of the Story-Based Emotional Picture Puzzle Media

The initial design consisted of emotional expression illustrations representing various emotions, including happiness, sadness, anger, fear, surprise, and disappointment. Each illustration was integrated into a story context relevant to children's daily experiences.



Figure 2. Story-Based Emotional Picture Puzzle Media Before Revision

The preliminary prototype underwent expert evaluation to assess content suitability, visual design, instructional structure, and usability. Several improvements were made based on expert recommendations regarding image clarity, storytelling flow, and emotional representation.



Figure 3. Final Version of the Story-Based Emotional Picture Puzzle Media

The final product integrated storytelling activities with puzzle-solving tasks, enabling children to identify emotions, reconstruct story sequences, discuss emotional situations, and communicate personal feelings in response to the stories presented.

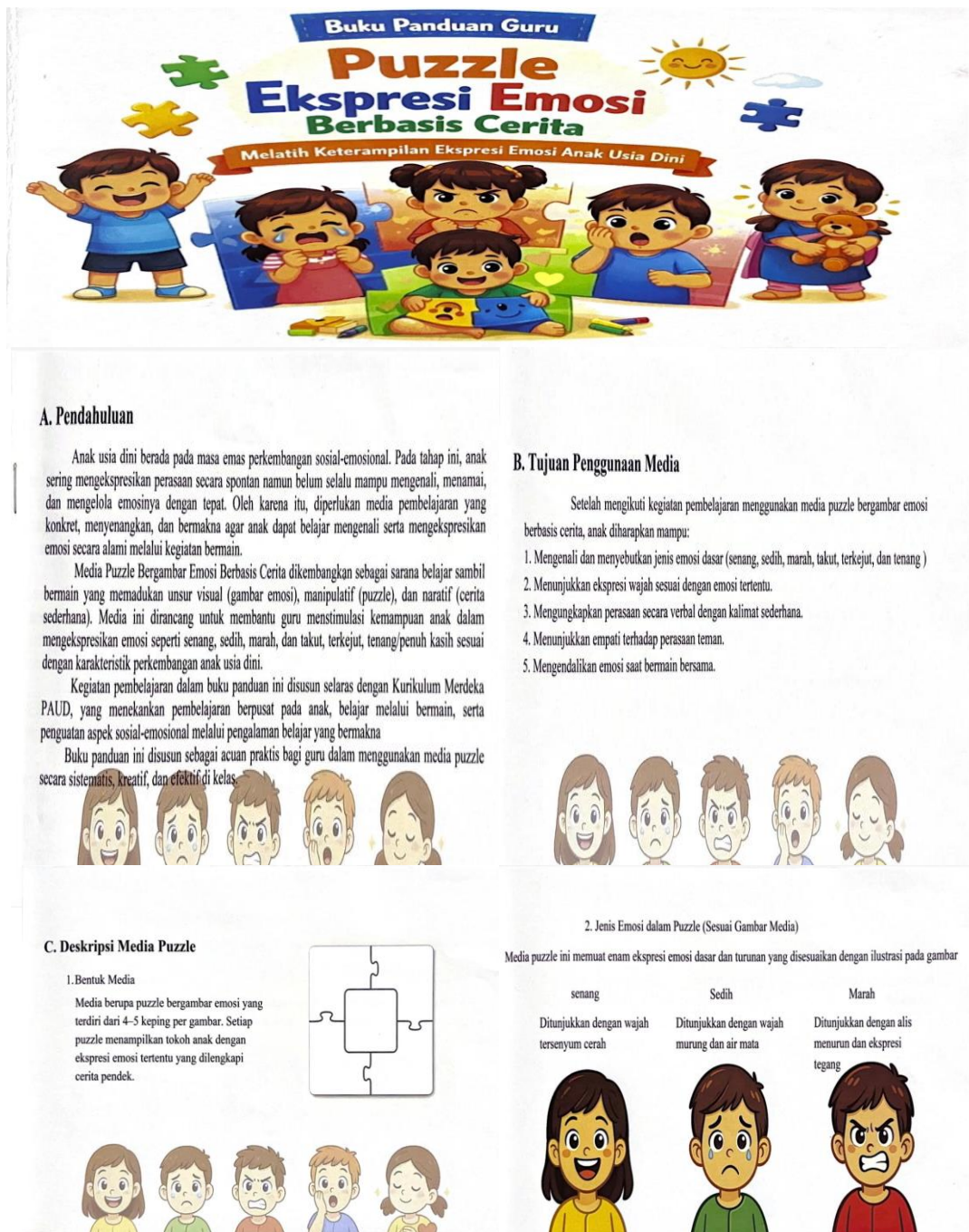


Figure 4. Teacher Guidebook for Story-Based Emotional Picture Puzzle Media

A teacher guidebook was developed to facilitate implementation. The guide includes learning objectives, instructions for media use, storytelling procedures, discussion prompts, and emotional expression indicators.

Validity of the Developed Media

The validity of the developed media was evaluated by experts in early childhood education and instructional media development. Validation focused on content appropriateness, language use, visual presentation, emotional relevance, instructional design, and usability.

Table 2. Validation Results of the Developed Product

Component Evaluated	Percentage	Category
Content Validity	87%	Very Valid
Media Design	85%	Very Valid
Language Appropriateness	86%	Very Valid
Teacher Guidebook	84%	Very Valid
Average	85.50%	Very Valid

The average validation score of 85.50% indicates that the developed media fulfilled the criteria of a highly valid educational product. Expert reviewers agreed that the media was appropriate for supporting emotional expression development and aligned with the developmental characteristics of early childhood learners.

Practicality of the Developed Media

The practicality of the story-based emotional picture puzzle media was assessed through teacher responses following classroom implementation. Teachers evaluated the media in terms of ease of use, attractiveness, instructional suitability, and overall applicability.

Table 3. Practicality Results of Story-Based Emotional Picture Puzzle Media

Indicator	Percentage	Category
Ease of Use	90%	Very Practical
Attractiveness	92%	Very Practical
Suitability for Learning	88%	Very Practical
Teacher Response	91%	Very Practical
Average	90.25%	Very Practical

The findings indicate that the developed media was highly practical for classroom implementation. Teachers reported that the media was easy to operate, visually attractive, and capable of facilitating children's participation during emotional learning activities. The storytelling component also helped teachers guide discussions regarding emotions in a structured manner.

Effectiveness of the Developed Media

The effectiveness of the story-based emotional picture puzzle media was evaluated through observations of children's emotional expression skills during learning

activities. Particular attention was given to children's ability to recognize emotions, communicate feelings, respond appropriately to emotional situations, and interact positively with peers.

Table 4. Effectiveness of Story-Based Emotional Picture Puzzle Media

Indicator	Percentage	Category
Emotion Recognition	88%	Very Effective
Emotional Communication	86%	Very Effective
Emotional Response	85%	Very Effective
Social Interaction	89%	Very Effective
Average	87.00%	Very Effective

The effectiveness results indicate that the media successfully supported the development of children's emotional expression skills. Children demonstrated improvements in recognizing emotional expressions, discussing feelings, responding appropriately to emotional situations, and interacting more positively with peers. The combination of storytelling and puzzle-solving activities encouraged active participation and provided meaningful opportunities for emotional exploration.

Discussion

The Need for Story-Based Emotional Picture Puzzle Media

The findings reveal a substantial need for instructional media specifically designed to support emotional expression development among young children. Many children experienced difficulties communicating feelings and responding appropriately to emotional situations, while available learning resources provided limited opportunities for emotional exploration. These findings suggest that emotional learning requires dedicated educational interventions that align with children's developmental needs and learning characteristics.

The strong teacher support for the development of story-based emotional picture puzzle media reflects growing recognition of the importance of social-emotional learning in early childhood education. Emotional competencies are closely related to children's ability to establish relationships, demonstrate empathy, and participate successfully in social interactions. Therefore, providing interactive learning experiences that facilitate emotional exploration is essential for supporting holistic child development.

Development of Story-Based Emotional Picture Puzzle Media

The development process emphasized the integration of storytelling and puzzle-based learning within a single educational medium. This integration was designed to create meaningful learning experiences that allow children to connect emotional concepts with real-life situations. Through storytelling, children are exposed to

emotional narratives that help them understand feelings and social situations, while puzzle activities encourage active engagement and exploration.

The resulting media supports emotional learning through visual, verbal, and interactive experiences. Children are not only encouraged to recognize emotional expressions but are also provided opportunities to discuss emotional situations, communicate personal feelings, and reflect on emotional responses. This integrated approach aligns with child-centered and play-based learning principles that emphasize active participation in knowledge construction.

Validity, Practicality, and Effectiveness of the Developed Media

The validation results indicate that the developed media meets educational standards in terms of content, design, language, and usability. The high validity scores suggest that the media appropriately represents emotional learning objectives and supports the development of emotional expression skills among young children. These findings confirm that educational media should be developmentally appropriate and aligned with instructional objectives to maximize learning outcomes.

The practicality findings demonstrate that teachers considered the media easy to use and suitable for classroom implementation. The attractive visual design, clear storytelling structure, and accompanying guidebook facilitated effective use during learning activities. These findings support the view that educational media should not only benefit children but also assist teachers in organizing and implementing learning experiences effectively.

The effectiveness results further indicate that the story-based emotional picture puzzle media contributed positively to children's emotional expression development. Improvements were observed in emotion recognition, emotional communication, emotional response, and social interaction. These findings support previous studies demonstrating that storytelling enhances emotional understanding and empathy, while puzzle-based learning promotes active engagement and emotional exploration (Catala et al., 2023; Batubara et al., 2023; Lisma April Lia & Reni Suwenti, 2024). The combination of these approaches appears to provide a richer learning experience than using either strategy independently.

From a constructivist perspective, the effectiveness of the media can be explained by children's active involvement in constructing emotional understanding through interaction, discussion, and play. Storytelling provides meaningful contexts for emotional learning, while puzzle-solving activities encourage children to explore emotional concepts through concrete experiences. This process enables children to internalize emotional knowledge more effectively and apply it in social interactions.

Overall, the findings indicate that the story-based emotional picture puzzle media successfully fulfilled the criteria of validity, practicality, and effectiveness. The media provides an innovative educational resource for supporting emotional expression

development while offering teachers a practical and engaging tool for implementing social-emotional learning in early childhood classrooms.

CONCLUSION

This study concludes that the development of the story-based emotional picture puzzle media provides an innovative and developmentally appropriate approach to supporting emotional expression skills among early childhood learners. By integrating storytelling activities with emotional picture puzzles, the media creates meaningful learning experiences that encourage children to recognize emotions, communicate feelings, respond appropriately to emotional situations, and engage positively in social interactions. The findings demonstrate that the developed media fulfilled the criteria of validity, practicality, and effectiveness, indicating its suitability for classroom implementation. Furthermore, the integration of visual, narrative, and interactive learning experiences contributes to more engaging and child-centered social-emotional learning, making the media a promising educational resource for fostering emotional expression development in early childhood settings.

REFERENCES

- Alotaibi, M. S. (2024). Game-based learning in early childhood education: a systematic review and meta-analysis. *Frontiers in Psychology*, 15(April). <https://doi.org/10.3389/fpsyg.2024.1307881>
- Ambarita, M. R., & Gampu, G. G. (2025). Bercerita dan Pengaturan Emosi pada Anak Usia Dini: Tinjauan Literatur Sistematis. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 9(5), 1559. <https://doi.org/10.31004/obsesi.v9i5.7043>
- Armesto Arias, M., Neira-Piñeiro, M. del R., Pasarín-Lavín, T., & Rodríguez, C. (2025). A drama-based intervention to improve emotional intelligence in early childhood education. *European Journal of Psychology of Education*, 40(1), 1–26. <https://doi.org/10.1007/s10212-024-00906-6>
- Atsalaki, K., & Kazanidis, I. (2025). Combining Virtual Reality Visual Novels and Social Stories to Support Social and Emotional Development in Children with Autism Spectrum Disorder. *Applied Sciences (Switzerland)*, 15(12), 1–21. <https://doi.org/10.3390/app15126584>
- Batubara, L. F., Agustini, R., & Lubis, J. N. (2023). Meningkatkan Perkembangan Sosial Emosional Anak melalui Metode Cerita. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 7(5), 5961–5972. <https://doi.org/10.31004/obsesi.v7i5.5336>
- Cantika, F., & Ilhami, A. (2025). Pengaruh Media Puzzle Bergambar terhadap Kecerdasan Emosional Anak Usia 5-6 Tahun di Tk B Tunas Muda Lahat. *Jurnal*

Pendidikan Dan Pembelajaran Indonesia (JPPI), 5(1), 530–539.
<https://doi.org/10.53299/jppi.v5i1.1478>

Catala, A., Gijlers, H., & Visser, I. (2023). Guidance in storytelling tables supports emotional development in kindergartners. In *Multimedia Tools and Applications* (Vol. 82, Issue 9). Multimedia Tools and Applications.
<https://doi.org/10.1007/s11042-022-14049-7>

Chintya, R., & Sit, M. (2024). Analysis of Daniel Goleman's Theory in the Development of Emotional Intelligence in Early Childhood. *Journal of PsyehologiandChildDevelopment*,4(1),163. <https://doi.org/10.37680/absorbent>

Dewi, N. N. D. P. T. (2020). Mengembangkan Kecerdasan Emosional Anak Usia Dini melalui Media Gambar Cerita Berseri. *Journal for Lesson and Learning Studies*, 3(3), 362–369

Fadli Rahman, Elfandrian Putra, & Elis Yulia Ningsih. (2024). Kecerdasan Emosi dan Resiliensi Akademik Sebagai Prediktor Prestasi Akademik Mahasiswa. *G- Couns: Jurnal Bimbingan Dan Konseling*, 9(2), 820–834. <https://doi.org/10.31316/g-couns.v9i2.6859>

Grady, A., Lorch, R., Giles, L., Lamont, H., Anderson, A., Pearson, N., Romiti, M., Lum, M., Stuart, A., Leigh, L., & Yoong, S. L. (2025). The impact of early childhood education and care-based interventions on child physical activity, anthropometrics, fundamental movement skills, cognitive functioning, and social-emotional wellbeing: A systematic review and meta-analysis. *Obesity Reviews*, 26(2), 1–20. <https://doi.org/10.1111/obr.13852>

Green, C., & Sun, H. (2025). Picturebooks Increase the Frequency and Diversity of Emotion Vocabulary in Children's Language Environments: Modeling Potential Benefits to Emotional Literacy, with Pedagogical Resources. *Early Education and Development*,36(3),568586.<https://doi.org/10.1080/10409289.2024.2423259>

Herlina. (2025). Adapting early childhood curriculum to technology: Insights from South Sulawesi, Indonesia. *Southeastern Philippines Journal of Research and Development*, 30(2), 1–23.

Herlina, H., Amal, A., & Irfah, R. (2025, July). The Effect of Creative Apron Media on Numerical Literacy in Aba Limbung Kindergarten, Gowa. In *2nd International Conference on Sciences, Mathematics, and Education 2023 (ICOSMED 2023)* (pp. 423-427). Atlantis Press.

Herlina, & Amal, A. (2021). Pengaruh Keterampilan Origami dalam Meningkatkan Kemampuan Motorik Halus Anak Usia 5-6 Tahun Pada TK Sulawesi Kota Makassar. *Seminar Nasional LP2M UNM*, 1217–1225.

- Herman, Herlina, 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), 2556889.
- Kim, R., Foster, M., & Parada, M. (2025). The Impact of Family Bonding Activity Type and Time on Young Children's Social-Emotional Development. *Children and Society*, 1-9. <https://doi.org/10.1111/chso.12974>
- Lisma April Lia, Reni Suwenti, G. T. (2024). Pengalaman anak usia dini dalam menggunakan media puzzle ekspresi untuk mengembangkan pengendalian sosial emosional anak usia dini. *Cendekia Pendidikan*, 17(4), 3025-6488.
- Masitoh, I. I. (2024). Pengaruh Penggunaan Puzzle Games Terhadap Perkembangan Sosial-Emosional Anak Usia Dini di Pos PAUD Harapan Putra Galuh. *Jurnal Intisabi*, 2(1), 77-88. <https://journal.putragaluh.ac.id/index.php/joece/article/view/72>
- Maylita, N., Trianggono, M. M., Kurniawan, N., & Dahlan, M. Z. (2025). Pengembangan Media Pembelajaran Puzzle Berbasis Kearifan Lokal Jember dalam Menstimulasi Motorik Halus Anak Usia Dini di TK Al Hidayah III. *Jurnal Ilmiah Profesi Pendidikan*, 10(2), 1223-1230. <https://doi.org/10.29303/jipp.v10i2.3352>
- McInnes, E., Whittington, V., Neill, B., & Farnale, A. (2025). Professional Learning Supporting Multilingual Children's Social and Emotional Development in Diverse Australian Early Childhood Education and Care Settings. *Early Childhood Education Journal*, 53(3), 779-790. <https://doi.org/10.1007/s10643-023-01620-6>
- Muthrofin, K., & Hakim, L. (2025). Analisis Konsep Perasaan Dan Emosi Dalam Perspektif Psikologi Pendidikan Islam. *Dar El-Ilmi : Jurnal Studi Keagamaan, Pendidikan Dan Humaniora*, 12(1), 126-141. <https://doi.org/10.52166/darelilmi.v12i1.9294>
- Ningsih, N. S., Nurhayati, F., Farida, I., & Pursitasari, I. (2024). Implementation of puzzle play for socio-emotional improvement of school-age deaf children. *IJDS: Indonesian Journal of Disability Studies*, 11(1), 37-43. <https://doi.org/10.21776/ub.ijds.2024.11.1.3>
- Novianti Retno Utami, & Khikmah Novitasari. (2022). Konstruksi Dimensi Kecerdasan Emosional Anak Usia 5-6 Tahun. *G-Couns: Jurnal Bimbingan Dan Konseling*, 7(01), 137-149. <https://doi.org/10.31316/gcouns.v7i01.4385>
- Plotnikova, V. A., Veraksa, A. N., Veraksa, N. E., & Nikolaeva, N. S. (2025). Project-Based Activity as a Means of Socio-Emotional Development in Preschool Children. *Integration of Education*, 29(2), 339-354. <https://doi.org/10.15507/1991-9468.029.202502.339-354>

- Portengen, C. M., Harrewijn, A., van Baar, A. L., & Endendijk, J. J. (2025). Gender-Differentiated Emotion Socialization: Evoked by Child Behaviors, Parents' Neural Responses Toward Gender-Stereotype Violations, or Both? *Parenting*, 25(1), 39–65. <https://doi.org/10.1080/15295192.2024.2426679>
- Rahayu Khoerunnisa, S., Muqodas, I., & Justicia, R. (2023). Pengaruh Bermain Puzzle terhadap Perkembangan Motorik Halus Anak Usia 5-6 Tahun. *Murhum: Jurnal Pendidikan Anak Usia Dini*, 4(2), 49–58. <https://doi.org/10.37985/murhum.v4i2.279>
- Rusmayadi, & Herman. (2019). The Effect of Social Skill on Children's Independence. *Journal of Educational Science and Technology*, 5(2), 159–165.
- Rusmayadi, Syamsuardi, & Wildawati. (2022). Pengaruh Metode Bercerita Menggunakan Media Animasi dalam Meningkatkan Kemampuan Menyimak Anak. *Wisdom: Jurnal Pendidikan Anak Usia Dini*, 03(01), 43–60.
- Saleme, P., Dietrich, T., Pang, B., & Parkinson, J. (2021). Design of a digital game intervention to promote socio-emotional skills and prosocial behavior in children. *Multimodal Technologies and Interaction*, 5(10). <https://doi.org/10.3390/mti5100058>
- Schapira, R., & Grazzani, I. (2025). Shared book reading and promoting social and emotional competences in educational settings: a narrative review. *Frontiers in Psychology*, 16(August), 1–10. <https://doi.org/10.3389/fpsyg.2025.1622536>
- Yafie, E., Setyaningsih, D., Lestarinigrum, A., Saodi, S., Herlina, H., & Wiranata, I. G. L. A. (2024). Exploring Merdeka Curriculum Implementation in Diverse Preschools Settings: A Comparative Analysis of Principal Perceptions in Public and Private Schools with Varied Accreditation Levels. *Participatory Educational Research*, 11(5), 41–58. <https://doi.org/10.17275/per.24.63.11.5>
- Yang, W., Liang, L., Xiang, S., & Yeter, I. H. (2025). Making a Makerspace in early childhood education: Effects on children's STEM thinking skills and emotional development. *Thinking Skills and Creativity*, 56(April 2024), 101754. <https://doi.org/10.1016/j.tsc.2025.101754>
- Suryana, D. (2019). Pendidikan anak usia dini: Stimulasi dan aspek perkembangan anak (Cetakan ke-2). Jakarta: Prenadamedia Group.
- Kostelnik, M. J., Soderman, A. K., & Whiren, A. P. (2017). Kurikulum pendidikan anak usia dini berbasis perkembangan anak (developmentally appropriate practices). Jakarta: Kencana.
- Lara Fridani, Sri Wulan, dan Sri Indah Pujiastuti. 2019. Evaluasi Perkembangan Anak Usia Dini. Tangerang Selatan: Universitas Terbuka.