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# Mini Box Theater: Development and Validation of an Innovative Storytelling Media for Children Aged 5-6 Years

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## Abstract

This research focuses on developing and validating the Mini Box Theater as an innovative storytelling medium for children aged 5-6 at Bali Kumara Batubulan Kindergarten. The study followed the Research and Development (R&D) methodology, utilising the ADDIE and Dick and Carey models. The objectives were to design, develop, and assess the feasibility of the Mini Box Theater for enhancing storytelling activities. Data were collected through observations, teacher interviews, and expert validation from five validators specialising in early childhood education and media development. Content validation involved evaluating storytelling components such as literacy, children's ability to express feelings, and participation in pre-reading activities. Media validation focused on technical aspects like design, material suitability, and ease of use. The results demonstrated high content validity, with a Content Validity Ratio (CVR) 1 for all items. Based on expert feedback, revisions were made to improve the media's visual appeal and enhance character interactions. Limitations of the study included the absence of comprehensive field testing due to time constraints. Despite this, the Mini Box Theater shows promise for improving children's storytelling skills, vocabulary, and cultural awareness. Future research should focus on field testing to assess the media's effectiveness in real classroom settings and explore its potential for broader educational applications. This study contributes to early childhood education by offering a culturally relevant and engaging tool for language development.

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## Introduction

Storytelling is crucial in early childhood development, influencing cognitive, emotional, and social skills foundational for lifelong learning (Pérez-Ferra et al., 2020; Salehjee, 2020). In particular, language development through storytelling activities helps children develop communication skills, improve their vocabulary, and express emotions (Zaini & Dewi, 2017). Despite the growing recognition of its importance, many educational institutions face significant challenges in implementing practical storytelling activities due to limited learning media (Andhika, 2021; Wahyuni et al., 2022). The increasing reliance on passive activities, such as block games or puzzles, often fails to capture children's interest, resulting in reduced engagement and participation (Gayatri & Sindhu Putra, 2023). These challenges necessitate the development of creative and interactive storytelling media to stimulate children's active involvement and language growth (Sweniti, 2020).

Within early childhood education, learning media and educational game tools (APE) are essential in supporting the effectiveness of stimulus activities, including storytelling (Ningsih & Farida, 2023; Viora Budiman & Kurniawan, 2022). Research has shown that educational tools enhance learning outcomes and play a pivotal role in engaging young learners and encouraging their participation in cognitive and social activities (Tambunan et al., 2019). Particularly in language development, interactive media such as puppets have proven effective in stimulating

storytelling skills, increasing motivation, and improving communication abilities (Marwah, 2022; Syafii et al., 2021). However, many institutions lack the resources to provide diverse and innovative media, which limits children's developmental opportunities (Sweniti, 2020; Zaini & Dewi, 2017). Therefore, integrating storytelling media such as Mini Box Theater in early childhood education is necessary to enhance learning experiences.

Bali Kumara Batubulan Kindergarten, like many early childhood institutions, faces challenges in conducting practical language stimulation activities, particularly storytelling. The limited availability of educational tools restricted to essential items like blocks and puzzles—fails to engage children in a way that encourages active participation, leading to passive learning attitudes (Andhika, 2021; Gayatri & Sindhu Putra, 2023). Moreover, teachers are constrained by these limitations, often lacking the creative resources needed to develop exciting and innovative storytelling media that would better support children's language development (Melzi et al., 2023; Sauro et al., 2020). While research highlights the effectiveness of various media, such as hand puppets, in enhancing children's storytelling abilities, these tools remain underutilised in many early childhood educational settings, including Bali Kumara Kindergarten (Kristiantari, 2021; Mujahidah et al., 2021; Rohmatul Fawaiz et al., 2022). Thus, there is a pressing need to introduce new, interactive media that can address these deficiencies.

Previous studies have demonstrated the effectiveness of hand puppets and other interactive tools in stimulating children's language and storytelling abilities. For instance, Marwah (2022) found that hand puppets significantly increased children's interest and motivation in storytelling activities, while Syafii et al. (2021) reported that puppets in language learning enhanced children's speaking competence. These findings align with broader research emphasising the importance of interactive and participatory media in early childhood education (Tambunan et al., 2019; Sweniti, 2020). Additionally, learning media designed around storytelling fosters language development and improves children's social interaction skills, as seen in Sweniti's (2020) study on interactive puppet stage media. However, despite these positive outcomes, the implementation of such media remains limited in many early childhood educational settings, including Bali Kumara Kindergarten.

Integrating cultural and environmental elements into storytelling media has also enhanced learning outcomes, as children are more likely to engage with content that reflects their surroundings and personal experiences (Tambunan et al., 2019; Zaini & Dewi, 2017). For example, research by Tambunan et al. (2019) demonstrated that using hand puppets based on local environments in kindergarten settings motivated children to participate more enthusiastically in storytelling activities. Similarly, Zaini and Dewi (2017) emphasised the importance of learning media in children's play activities to stimulate all aspects of growth and development. These studies suggest that storytelling media should be interactive and contextually relevant to maximise children's engagement and learning potential. Nevertheless, there remains a gap in the availability of such media in many educational institutions, particularly in settings like Bali Kumara Batubulan Kindergarten.

In addition to fostering language and social skills, well-designed educational media can support cognitive development by encouraging children to think creatively and critically (Kustiawan et al., 2020; Tsortanidou et al., 2021). Research by Kustiawan et al. (2020) highlighted the potential of flannel-based puppet models in developing children's cognitive and motor skills through storytelling. Similarly, Tsortanidou et al. (2021) found that low-tech media inspired by Waldorf education significantly enhanced young learners' media literacy and critical thinking. These studies underscore the importance of hands-on, creative learning tools in early childhood education. While digital media have become increasingly prevalent, physical and interactive tools like puppets and Mini Box Theater offer a more engaging and developmentally appropriate alternative (Bazargani et al., 2022; Edwards et al., 2020). Despite these advantages, many formal institutions rely on limited, less effective media.

While numerous studies have documented the benefits of interactive storytelling media, such as hand puppets, there remains a gap in research concerning the development of more

innovative tools, particularly those that incorporate multiple sensory and cognitive elements (Sweniti, 2020; Wahyuni et al., 2022). Most existing research focuses on traditional media, like puppets or flannel models, with limited exploration of new, hybrid tools that combine physical interaction with creative storytelling, such as the Mini Box Theater. Moreover, many studies have not sufficiently addressed how these media can be tailored to meet the specific needs of children aged 5-6, a critical period for language and cognitive development (Escolano-Pérez, 2020). As such, there is a clear need for research investigating the design, development, and implementation of new educational media that can effectively stimulate storytelling and language development in this age group.

This study aims to develop and validate the Mini Box Theater as an innovative storytelling medium designed to support language stimulation and engagement for children aged 5-6 at Bali Kumara Batubulan Kindergarten. By incorporating educational game tools (APE) and drawing on the effectiveness of previous media, such as hand puppets, the Mini Box Theater offers a novel approach that combines physical interaction, creativity, and storytelling. This research seeks to address the limitations of existing media and provide a more comprehensive solution for early childhood educators looking to stimulate language development interactively and engagingly. The findings from this study could inform future efforts to integrate culturally relevant and developmentally appropriate storytelling media into early childhood education, potentially enhancing both language and cognitive skills.

## Methods

This study employs a Research and Development (R&D) approach using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation) as well as the Dick and Carey model (Dick et al., 2014). This research aims to develop the Mini Box Theater as a storytelling medium for children aged 5-6 years at TK Bali Kumara and to assess its validity and feasibility through a systematic development process. The sample for this study was selected using purposive sampling, where subjects relevant to the research objectives were intentionally chosen. The primary sample consisted of teachers and children at TK Bali Kumara, with children aged 5-6 years chosen as the primary subjects due to their active participation in learning activities at the school. The teachers involved were selected based on their experience in early childhood education and their engagement in using educational media. Additionally, five media experts, including lecturers from the Early Childhood Teacher Education (PGPAUD) program at STAIN Mpu Kuturan Singaraja, Dyana Pura University Denpasar, and Hindu State University I Gusti Bagus Sugriwa Denpasar, served as expert validators.

This study gathered two types of data: primary and secondary data. The primary data came from direct observations of children, interviews with teachers, and validation feedback provided by media experts and teachers. The expert validators offered input on the content and media being developed. Meanwhile, secondary data were obtained through a literature review on developing early childhood language and educational media. This helped strengthen the theoretical foundation for developing the Mini Box Theater as a learning medium. Data collection techniques included observation, unstructured interviews, and documentation. Observations were conducted systematically to see how children interacted with the media and how it influenced their engagement in storytelling activities. Interviews were held with teachers and media experts to gain insights into how the media could support children's learning processes. At the same time, documentation was used to gather data from various sources, such as observation reports, interview results, expert validation, and literature analysis related to early childhood language development.

Expert validation was carried out by five validators, comprising PGPAUD lecturers from several universities and a teacher from TK Bali Kumara. This validation process aimed to assess the feasibility of the developed content and media and was conducted in two stages: content validation and media validation. Content validation involved evaluating the stories used in the

Mini Box Theater based on an instrument with ten statements related to literacy, children's ability to express feelings, participation in pre-reading activities, and their ability to engage in conversations. Validators assessed these aspects using a three-point scale: 1 (Not Relevant), 2 (Somewhat Relevant), and 3 (Relevant). Meanwhile, media validation used an instrument that included 18 aspects focusing on the physical design of the Mini Box Theater, the quality of the puppet materials, and the appropriateness of colours and symbols for storytelling activities. Validators evaluated whether the media were appealing and easy for children to use. The results of this validation were used to improve the design and content of the media.

The assessment instruments used in the evaluation consisted of two parts: a content evaluation instrument and a media evaluation instrument. The content evaluation instrument included ten statements that assessed children's ability to recognise information, participate in pre-reading activities, and express their feelings through storytelling. Meanwhile, the media evaluation instrument included 18 statements that assessed the technical aspects of the Mini Box Theater, such as design, colours, material suitability, and the media's ability to stimulate storytelling activities.

The development process in this study followed the ADDIE model, involving five main stages: analysis, design, development, implementation, and evaluation. In the analysis stage, the researchers identified a problem at TK Bali Kumara: the lack of engaging media to support children's storytelling skills. An analysis was conducted on curriculum needs, the characteristics of 5-6-year-old children, and the surrounding environment. The results of this analysis formed the basis for the design of the Mini Box Theater, taking into account children's needs and the local environment. The design included the puppet stage, puppet characters, and storybooks that supported storytelling activities, considering size, materials, and aesthetics to ensure the media were easy to use and attractive for children. In the development stage, a prototype of the Mini Box Theater was created based on the designed specifications, including a puppet stage, felt fabric puppet characters, and two series of storybooks. After the prototype was completed, experts validated the media to assess the feasibility of its design and content. The implementation stage involved testing the media on children at TK Bali Kumara, where observations were made on how the children interacted with the media, and interviews were conducted with teachers to gather feedback.

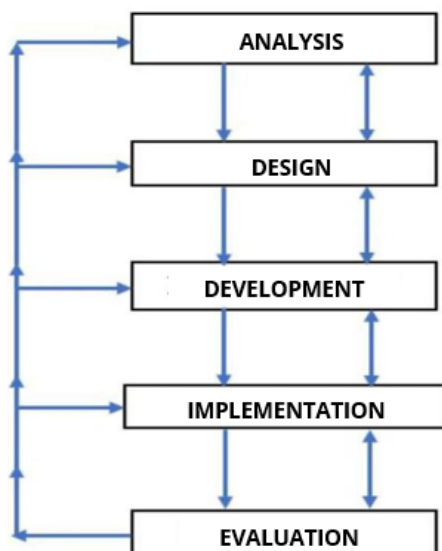


Figure 1. ADDIE Research Model Dick and Carey

The evaluation was carried out formatively through feedback from experts during the development process and summatively after implementation to assess the media's effectiveness in stimulating children's storytelling skills. Data from expert validation were analysed qualitatively and quantitatively.

Qualitative analysis gathered suggestions and feedback from validators, while quantitative analysis used the Qualitative data analysis using the Content Validity Ratio (CVR) analysis formula, as follows:  $CVR = (N_e - n/2) / (n/2)$  with a minimum CVR value of 0.99. Based on the evaluation, revisions were made to the media, including changes in colours and illustrations to capture children's interest and the addition of dialogues between characters to support speaking skills development. This study did not include a comprehensive field test, so future research should conduct a quasi-experimental test with control and experimental groups to compare results between the use of the Mini Box Theater and conventional teaching methods. Through a systematic R&D process, this study aims to develop a valid and appropriate learning medium to enhance children's storytelling skills at TK Bali Kumara.

## Result

This study focused on developing the Mini Box Theater as a tool to enhance storytelling skills among children aged 5-6 years. The development process followed the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation). The research results include expert validation on both material and media aspects, as summarised below:

### Analyse

This stage involves three analysis processes: needs analysis, curriculum analysis, and analysis of children's characteristics and environment. Below is an explanation of the three needs analyses.

#### *Analysis of Needs*

PAUD Bali Kumara still lacks educational games related to language development. Based on the observations and results of the needs analysis, educational media or APE is necessary for literacy activities, especially storytelling. Regarding language development, children tend only to be involved in singing activities.

#### *Curriculum Analyses*

The purpose of this analysis is to ensure the curriculum used. Based on the analysis results, the curriculum used at Bali Kumara Kindergarten is the Merdeka Play Curriculum. In the development of this media, several indicators are taken from the Merdeka curriculum based on the developmental values of the children's language aspects adapted to their age. In the Merdeka play curriculum, storytelling is included in literacy activities. Below is a table describing the aspects assessed in literacy activities in the independent curriculum.

Table 1. Implementation of Literacy in the Independent Curriculum in Mini Box Theatre Media

	<b>Literacy Basics</b>	<b>Learning Objectives</b>	<b>Implementation in Media</b>
<b>Literacy Learning</b>	<ol style="list-style-type: none"> <li>1. The child recognises and understands various information, communicates feelings and thoughts orally, in writing, or using various media, and builds conversations.</li> <li>2. The child shows interest, passion, and participation in pre-reading activities.</li> </ol>	<ol style="list-style-type: none"> <li>1. The child recognises and understands various information, communicates feelings and thoughts orally, in writing, or using various media, and builds conversations.</li> <li>2. The child shows interest, passion, and participation in pre-reading activities.</li> </ol>	<ol style="list-style-type: none"> <li>1. Displaying pictures in story form</li> <li>2. Media displaying pictures of letter symbols</li> <li>3. Role-playing game</li> <li>4. Conversation in role play</li> <li>5. Telling stories according to children's experiences</li> </ol>



### *Analysis of Child Characteristics and Environment*

Analysis of children's characteristics and environment is done to accommodate their development level and consider their school and living environment, which is then included in the mini box theatre media. So that the characteristics of early childhood will be reflected in the media. Based on the observations and interviews analysing children's character and the environment, it was found that the local character around the school area is still powerful. The environment still has a rural atmosphere with banana plantations and coconut trees. The development needed in the characteristics is creating hand puppet characters and stories by the locality owned by Bali Kumara Kindergarten School.

### **Design**

The data obtained in the analysis process is processed into media form at this stage. Based on the analysis data, designing mini box theatre media as a storytelling medium for children aged 5-6 years consists of several parts; storybooks and guidebooks that can guide the use of the media are also compiled. Some of the design processes are described below: 1. Determining the media form/design: Based on the needs analysis in the previous stage, it is determined that there are 4 form designs and designs that are part of the mini box theatre media. The four forms are stage, puppet, storybook, and guide media. Each form of mini box theatre media includes the following specifications:



Figure 2. Stage Design of Mini Box Theater from the Front Side

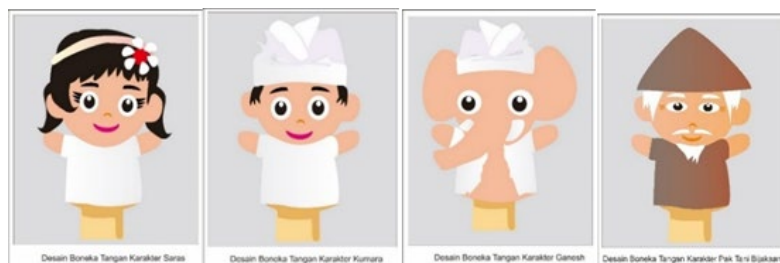


Figure 3. Four Character Designs of Hand Puppet Characters (Saras, Kumara, Ganesh, and Wise Farmer)



Figure 4. Front Cover of Mini Box Theater Guidebook



Figure 5. Cover of SAKUGA Storybook, Series 1 Knowing Banana Tree and Series 2 Knowing Coconut Tree.

Mini Box Theater Stage Media has a length of 120 cm, a width of 60 cm, and a height of 150 cm. The form of mini box theatre media as a storytelling medium for children aged 5-6 years uses the concept of a puppet theatre stage form with a design tailored to localities. Hand puppet media in the form of human characters according to the needs are the characters of Saras, Kumara, Ganesh, and Mr. Wise Farmer. The puppets are adjusted to the size of the children's hands and made of flannel fabric and synthetic cotton (Dacron). Mini Box Theater Guidebook media has A5 paper size with art paper material. The cover design shows writing and four media images, namely puppet stage media, saras character figures, and two series of storybooks with the colours used using pastel colours. The font used is Arial 12pt. Storybook media is A5 in size and uses materials such as art paper. The storybook contains pictures and stories played with hand puppets. The font used is Arial, with a size of 12 pt.



## Implementation

At this stage, the Mini Box Theater media were tested in five material and media expert tests. The following describes the results of material expert validation and media validation results :

### *Material Expert Validation*

Expert data was obtained based on material instruments and products brought, which were then evaluated based on the expertise of each validator. In the material assessment instrument, 10 statement items are assessed with three choices of checklist assessment points: 1. Not relevant, 2. Less relevant, and 3. Relevant. Validator assessment data were quantitatively analysed based on Lawhse's CVR validation formula.

Based on assessments from five material experts, the media was deemed valid with a Content Validity Ratio (CVR) of 1 across all items, indicating that the story scripts and character designs were highly relevant and appropriate for early childhood development. The experts suggested increasing the variety of stories to better reflect children's immediate environments. They emphasised the media's potential to stimulate literacy and character development, including empathy and environmental awareness. With a minimum standard of 0.99 for validity, the CVR analysis confirmed that all validators considered the material valid, making it a highly feasible foundation for developing mini-box theatre media. The quantitative results, shown in the table, are calculated using Lawshe's CVR formula, which further supports this conclusion.

Table 2. Calculation Results of Material Instrument Expert Validation with Lawshe CVR formula

No	Question Item	ne	N/2	Ne-N/2	CVR (Ne-N/2) : (N/2)	Min Value CVR	Description
1	Item 1	5	2.5	2.5	1	0.99	Valid
2	Item 2	5	2.5	2.5	1	0.99	Valid
3	Item 3	5	2.5	2.5	1	0.99	Valid
4	Item 4	5	2.5	2.5	1	0.99	Valid
5	Item 5	5	2.5	2.5	1	0.99	Valid
6	Item 6	5	2.5	2.5	1	0.99	Valid
7	Item 7	5	2.5	2.5	1	0.99	Valid
8	Item 8	5	2.5	2.5	1	0.99	Valid
9	Item 9	5	2.5	2.5	1	0.99	Valid
10	Item 10	5	2.5	2.5	1	0.99	Valid

### **Description :**

Ne = many validators rated it as relevant

N = 5 (validator)

Min Value CVR = 0,99

CVR  $\geq$  0,99 = Valid

The final evaluation provided several vital suggestions for enhancing the development of the medium. First, the validators emphasised the need to use illustrations and story ideas drawn from children's immediate environment to ensure the messages are relatable and easily understood. Using simple, familiar ideas allows the children to imitate better and absorb the presented values. Furthermore, beyond language and literacy development, the medium can stimulate various other aspects of development, such as fostering empathy and caring for the environment. One validator highlighted the potential for this medium to serve as a tool for building character, offering a novel approach to using storybooks to stimulate emotional and social growth in children.

Additionally, the evaluation stressed the importance of maintaining literacy as a critical focus, ensuring that the material used continues to promote successful learning outcomes. Accurate and relevant content is crucial for effective media development. In this regard, validators suggested incorporating character dialogues in the story to encourage children's communication skills. Including conversational exchanges between characters not only



enriches the storytelling but also offers children a chance to practice conversational techniques, helping them become more accustomed to verbal interaction.

Overall, the results of material validation, which show valid values, are a good step in this feasibility assessment. In general, all the developed materials are used by the developmental stages of children aged 5-6 to obtain advanced stimulation with mini box theatre media in language literacy. The literacy values taken from the independent play curriculum can be feasibly implemented through materials prepared in mini-box theatre media to support their development.

### *Media Expert Validation*

Expert data was obtained based on material instruments and products brought, which were then evaluated based on the expertise of each validator. The media evaluation instrument has 18 statement items that are evaluated with three choices of checklist evaluation items: 1. Not relevant, 2. Less relevant, and 3. Relevant. Validator scoring data were analysed quantitatively using Lawhse's CVR validation formula.

Five media experts also validated the media, with most aspects receiving a CVR score of 0.99 or higher, indicating high relevance. However, one item, the coordination between character movements and dialogue, scored below 0.99. The experts noted that the characters' movements were monotonous and limited to a single front-facing perspective. Improvements were recommended to create more dynamic character movements that better align with the dialogue.

The CVR analysis used a minimum score of 0.99 because there were five validators. However, one statement item is not valid because it has a score of 0.20, which is item 18. Item 18 states that about the suitability of movement and dialogue, two validators rated it as irrelevant. Because in this item, the character in Sakuga's story is only in a monotonous motion position. This is because the researcher illustrates the character in the form of a puppet that is moved by hand. This concept makes the character in only one point of view, the front view.

Table 3. Calculation Results of Media Instrument Expert Validation with Lawshe CVR formula  
Berikut adalah tabel yang ditulis ulang dengan format yang lebih rapi:

No (Question Item)	ne	N/2	Ne-N/2	CVR ((Ne-N/2) : (N/2))	Min Value CVR	Description
Item 1	5	2,5	2,5	1	0,99	Valid
Item 2	5	2,5	2,5	1	0,99	Valid
Item 3	5	2,5	2,5	1	0,99	Valid
Item 4	5	2,5	2,5	1	0,99	Valid
Item 5	5	2,5	2,5	1	0,99	Valid
Item 6	5	2,5	2,5	1	0,99	Valid
Item 7	5	2,5	2,5	1	0,99	Valid
Item 8	5	2,5	2,5	1	0,99	Valid
Item 9	5	2,5	2,5	1	0,99	Valid
Item 10	5	2,5	2,5	1	0,99	Valid
Item 11	5	2,5	2,5	1	0,99	Valid
Item 12	5	2,5	2,5	1	0,99	Valid
Item 13	5	2,5	2,5	1	0,99	Valid
Item 14	5	2,5	2,5	1	0,99	Valid
Item 15	5	2,5	2,5	1	0,99	Valid
Item 16	5	2,5	2,5	1	0,99	Valid
Item 17	5	2,5	2,5	1	0,99	Valid
Item 18	3	2,5	0,5	0,20	0,99	Invalid

#### **Description :**

ne = many validators rated it as relevant  
N = 5 (validator)  
Min Value CVR = 0,99

CVR  $\geq 0,99$  = Valid

The validation conducted by five experts provided several suggestions for improving the Mini Box Theater media. Key recommendations included refining the colour combinations to make the media more attractive to children and using colours that engage the psychological side of the child, making them feel interested, happy, and comfortable. Additionally, the media was suggested to stimulate language development and other aspects, such as cognitive development. The movement of the character illustrations in the story was critiqued for being too monotonous, with characters remaining in a single position, which made the dialogue less dynamic. It was recommended that the variety of character movements be enhanced and the size of the stage be considered.

The main points highlighted were the use of colour and the alignment of character movements with dialogue. Bold, contrasting colours are crucial in capturing and maintaining children's attention. The static nature of the characters' movements, which do not match the dialogue, also needs improvement to create better harmony between movement and speech, even if the characters' positions remain the same. Overall, the expert validation concluded that the Mini Box Theater is valid and suitable for stimulating the language development of children aged 5-6, with 17 items receiving a valid score. Item 18 will be evaluated and revised in future iterations.

### Evaluation

The input from expert validation at the implementation stage becomes a note used to improve the product and make it more optimal. Based on several material and media validation results, two items require more attention and improvement. The following describes the product revision process based on the input obtained at the expert validation stage.

#### *Revise Product Media*

The first media product revision was made to the puppet stage media. The Puppet Stage media has undergone a colour change from monochrome brownish colours to lighter and pastel colours. The colour combinations used are pastel green, pastel blue, pastel pink, and purple. Other colour combinations are used in the form of plants, including banana trees, coconuts, and some animals.

Plant and animal shapes are always chosen to be close to the children's environment. Below is a picture of the redesigned puppet stage of Mini Box Theater Media.



Figure 10. Structuring the composition of figure images on story fragments so that the figure is more dynamic and appears through the dialogue.

The second point is the suitability of the SAKUGA character's movement and dialogue in the serialised storybook. This change or revision is done by loading the composition of the character scene by playing the perspective of the distance between one character and another. This process creates a dynamic movement that describes the dynamic communication in the dialogue.

Following the expert feedback, several critical revisions were made. The puppet stage was modified, changing the colour scheme from monochromatic tones to lighter pastel colours, which are more visually appealing to children. Additionally, the composition of characters in the stories was adjusted to create an illusion of more dynamic movement, especially in the second storybook series titled *"Getting to Know Coconut Trees."* These changes were aimed at enhancing the interactive and communicative elements of the storytelling experience. The dynamic composition of the SAKUGA tohoh picture is shown below.

The results of the revision of media products provide significant attractive changes. Thus, the media products developed are ready to be tested in the field. However, this process could not be carried out in this study due to limited research time. This happened because of the long development time for the many media variants that had been developed.

This study was limited to expert validation and did not include field testing to assess the media's effectiveness in a classroom setting. Therefore, further research is needed to evaluate the media's direct impact on children's storytelling skills. In future stages, this media will be tested in early childhood education environments to assess its effectiveness in enhancing children's storytelling abilities. The evaluation will measure children's engagement in storytelling activities, vocabulary expansion, and ability to construct dialogues and express ideas through storytelling.

## Discussion

The success of early childhood education is closely tied to the use of appropriate and engaging learning media, which can capture children's interest and enhance their enthusiasm for learning. Research on early childhood learning media highlights the necessity for creative and developmentally appropriate methods to cater to a child's growth, particularly in stimulating language development (Guslinda & Kurnia, 2018). The Mini Box Theater, developed as a storytelling medium for children aged 5-6 years, offers an innovative approach to stimulating language through role-playing and interactive storytelling (Lillard, 2022). This medium aligns with educational practices that encourage engaging tools to support literacy and language development, especially in environments that traditionally lack sufficient resources for storytelling activities (Yasbiati; Gandana, 2019). Integrating puppets with local cultural themes adds a creative and cultural dimension, making learning more relatable and meaningful for children.

The study confirmed the Mini Box Theater's validity as an effective tool for early childhood storytelling. Expert validation revealed high scores in most areas, particularly in relevance and educational impact, with the puppet-based design being praised for its capacity to stimulate language development (Pellokila & Sesfao, 2022). The media effectively mirrors the local environment, incorporating elements such as banana trees and coconut trees into the storytelling, which helps children in rural Bali connect with the content more deeply (Putra et al., 2023). The medium's combination of puppets and relatable stories encourages children to participate in storytelling actively, thus fostering their expressive language skills (Ristiyani & Mulyono, 2023). However, one notable issue was the limited dynamism in character movements, which was addressed through revisions to make the puppets' interactions more engaging.

This research supports findings from earlier studies that emphasise the importance of interactive storytelling in early childhood education. Puppet-based learning media have been shown to enhance children's creativity, language, and cognitive development, which aligns with the outcomes of the Mini Box Theater's implementation (Bravo & Cisterna, 2020; Goldstein et al., 2022). Similar to studies showing that hand puppets can encourage active learning and dialogue (Mujahidah et al., 2021), the Mini Box Theater successfully promotes verbal interaction and narrative skills among children. Additionally, the cultural relevance of the Mini Box Theater resonates with findings that culturally contextualised learning tools can enhance children's engagement and cognitive development (Harper et al., 2023; Hu & Ødemotland, 2021). This

demonstrates the value of integrating local traditions and stories into educational media for early childhood development.

The findings contrast slightly with studies emphasising more dynamic interaction in puppet-based learning. While the Mini Box Theater successfully fostered storytelling, the critique of monotonous character movements differs from research that highlights the importance of highly interactive puppet mechanics in maintaining children's attention (Kusbudiah, 2018). Additionally, other studies on early childhood media have stressed the need for longitudinal field testing to fully measure educational outcomes (Natale et al., 2020). The absence of field trials in this study limits the ability to assess the Mini Box Theater's long-term impact on children's language development. This gap suggests that future research needs to incorporate more comprehensive media testing in classroom settings to measure sustained benefits (Tandika & Ndjuyue, 2020).

The effectiveness of the Mini Box Theater can be attributed to its adherence to early childhood learning principles, particularly its ability to combine interactive and culturally relevant storytelling (Piris, 2021). The hand puppets allowed children to embody characters from stories rooted in their local culture, thus enhancing their connection to the content and fostering a deeper understanding of the material (Sumaryani et al., 2021). This combination of role-playing and local context resonates with research suggesting that storytelling media must be engaging and culturally significant to maximise their educational value (Novianti et al., 2023). However, the feedback concerning puppet movement points to a need for technical refinements to maintain children's engagement and ensure dynamic storytelling experiences (Widia Ayu Yustanti, Rina Yuliana, 2020). The study's findings underscore the importance of continuously evolving educational media to meet children's developmental needs.

While the study's results are promising, the lack of field testing limits the generalizability of the findings. Although the Mini Box Theater was validated by experts, real-world classroom testing is necessary to confirm its effectiveness in improving children's storytelling skills over time (Escolano-Pérez, 2020). Furthermore, the revisions made to improve puppet movements highlight the importance of interactivity in engaging children. However, the extent to which these changes will enhance learning outcomes remains uncertain without further trials (Tsortanidou et al., 2021). Thus, the current findings should be interpreted cautiously, as additional research is needed to establish the medium's long-term impact on children's language development and overall educational benefits (Salomonsen, 2020).

The Mini Box Theater offers a promising tool for improving early childhood literacy, especially in environments lacking culturally relevant and engaging educational media. Its integration of local themes and puppet-based storytelling aligns with broader trends in early childhood education, emphasising the value of role-play and cultural context in language development (Haryani et al., 2021; Hasmira & Yudha, 2023). Once field-tested and entirely refined, the Mini Box Theater could significantly enhance children's storytelling abilities, promote language skills, and foster a greater appreciation for local culture (Harper et al., 2023; Karaolis, 2020). Moreover, the Mini Box Theater's design may serve as a model for other regions seeking to preserve cultural heritage through innovative educational media, thus broadening the scope of early childhood education globally (Connolly et al., 2023).

## Conclusion

This study aimed to develop and validate the Mini Box Theater as an innovative storytelling medium for children aged 5-6. It addressed its design, development, and effectiveness in enhancing Bali Kumara Batubulan Kindergarten storytelling activities. The findings revealed a significant need for educational media tailored to storytelling and literacy, particularly within the Merdeka Play Curriculum, where language development plays a crucial role. The Mini Box Theater, incorporating hand puppets and local stories, successfully aligned with curriculum goals and the children's environmental context, offering a culturally relevant approach to storytelling. The research highlights that the Mini Box Theater was well-received by material and



media experts, with high validity ratings, except for some critiques on character movement dynamics. Revisions were made to improve the visual appeal and puppet interaction. Although field testing was not conducted due to time constraints, the potential impact of this medium suggests that it could significantly enhance storytelling abilities, vocabulary expansion, and dialogue construction among children in a rural setting. The study contributes to early childhood education by offering a culturally relevant tool for language development, though further research is needed to assess its effectiveness in practice. The Mini Box Theater could also be a model for integrating cultural heritage into early childhood education in other regions globally.

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