~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

Art-Based Digital Storytelling as a Strategy for Developing Imagination and Early Childhood Communication Skills

Bercerita Digital Berbasis Seni sebagai Strategi untuk Mengedembangkan Imajinasi dan Keterampilan Komunikasi Anak Usia Dini

Khairunnisa Ulfadhilah[1], Salsabila Dwi Nurkhafifah[2]
[1]*Universitas Islam Bunga Bangsa Cirebon, Indonesia*
[2]*Universitas Teknologi Yogyakarta, Indonesia*
***Corresponding author:** khairunnisaulfadhilah51045@gmail.com

Article history
Received :
(15-08-2026)
Revised :
(24-08-2026)
Accepted :
(11-09-2026)

ABSTRACT
The early childhood education curriculum identifies the ability to compose and tell stories as a key developmental achievement, but in practice, many institutions still position children as viewers of digital shows and as implementers of art patterns created by teachers, narrowing the space for children's imagination and speech. This study aims to describe the implementation of art-based digital storytelling, analyze changes in the quality of children's imagination and accompanying communication skills, and formulate pedagogical conditions that allow the strategy to work. The study used a qualitative approach with a single instrumental case study design in RA Mubarokah, involving 18 Group B children aged 5–6 years, five educators, and 18 parents, with data collected through participatory observation of six learning cycles, semistructured interviews, artwork documentation and digital story files, and supporting questionnaires; The analysis was carried out with a six-phase reflective thematic analysis and its validity was checked through triangulation, member check, and audit trails. The results of the study show that the placement of children's artworks as the only visual source of digital stories shifts the position of children from recipients to authors; The completeness of the narrative structure increased from two to thirteen children, the average duration of speech increased from 24 seconds to 68 seconds, and the richness of unique vocabulary increased from 21 to 47 words per child, while four qualitative themes explained the mechanism of these changes, namely the ownership of visual artifacts, the shift in the role of children to authors, the function of voice recordings as self-mirrors, and the repositioning of teachers as facilitators. The contribution of this research lies in the formulation of a five-stage cycle model that integrates children's art production into the digital storytelling production flow and in the explanation of the process-not just the result-which has rarely been describe in the study of digital storytelling at the preschool level.
Keywords: *early childhood, digital storytelling, imagination, communication skills, art-based learning.*

ABSTRAK

Kurikulum pendidikan anak usia dini menetapkan kemampuan menyusun dan menceritakan kisah sebagai pencapaian perkembangan yang krusial; namun, dalam praktiknya, banyak lembaga masih menempatkan anak hanya sebagai penonton tayangan digital dan pelaksana pola seni yang dibuat oleh guru, sehingga membatasi ruang bagi imajinasi dan kemampuan berbicara anak. Penelitian ini bertujuan untuk mendeskripsikan penerapan bercerita secara digital berbasis seni, menganalisis perubahan kualitas imajinasi anak serta keterampilan komunikasi yang menyertainya, dan merumuskan kondisi pedagogis yang memungkinkan strategi tersebut berjalan efektif. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus instrumental tunggal di RA Mubarokah, yang melibatkan 18 anak Kelompok B (usia 5–6 tahun), lima pendidik, dan 18 orang tua; pengumpulan data dilakukan melalui observasi partisipatif pada enam siklus pembelajaran, wawancara semi-terstruktur, dokumentasi karya seni dan berkas cerita digital, serta kuesioner pendukung. Analisis data dilakukan menggunakan metode analisis tematik reflektif enam tahap, dengan validitas yang diperiksa melalui triangulasi, member check, dan jejak audit. Hasil penelitian menunjukkan bahwa penggunaan karya seni anak sebagai satu-satunya sumber visual dalam cerita digital mengubah posisi anak dari sekadar penerima menjadi pencipta cerita; terjadi peningkatan jumlah anak yang mampu menyusun struktur narasi lengkap (dari dua menjadi tiga belas anak), peningkatan durasi bicara rata-rata (dari 24 detik menjadi 68 detik), serta peningkatan kekayaan kosakata unik (dari 21 menjadi 47 kata per anak). Selain itu, empat tema kualitatif menjelaskan mekanisme perubahan tersebut, yaitu kepemilikan atas artefak visual, pergeseran peran anak menjadi pencipta cerita, fungsi rekaman suara sebagai cerminan diri, dan reposisi guru sebagai fasilitator. Kontribusi penelitian ini terletak pada perumusan model siklus lima tahap yang mengintegrasikan proses pembuatan karya seni anak ke dalam alur produksi digital storytelling, serta pada penjelasan mengenai prosesnya yang jarang diuraikan dalam studi mengenai digital storytelling di tingkat prasekolah.

Kata Kunci: anak usia dini; bercerita digital, imajinasi, keterampilan komunikasi, pembelajaran berbasis seni.

INTRODUCTION

The early childhood education curriculum document in Indonesia identifies the ability to compose and tell stories as one of the markers of children's language maturity by age 6. Children are expected not only to listen to fairy tales but also to be able to re-present experiences in the form of speech with characters, settings, problems, and solutions (Widyasari et al., 2021). This hope rests on a long-established developmental assumption: imagination is not a decoration in learning, but rather a thinking device that allows the child to detach himself from concrete objects and work with symbols. The child who can treat a straw as a rocket is practicing the same mental operations that he will later use to understand letters as a representative of sound. Therefore, imagination

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

and communication skills do not stand as two separate achievements; The two meet at the same point, which is when the child has to arrange his fictitious world into speech that others can understand.

Learning practices in the field often move in the opposite direction to this ideal. Storytelling activities in many institutions are still centered on the teacher: the teacher holds the book, voices all the characters, and the child sits as a listener who is occasionally asked to answer closed-ended questions. The entry of technology does not automatically change that pattern (Suhasmi & Ismet, 2021). Fairy tale videos downloaded from online channels actually strengthen children's position as consumers: screens provide images, sounds, music, and even emotional tempo in full, leaving almost no gap for children to imagine for themselves. At the same time, art activities that have the potential to serve as spaces for ideas are often reduced to coloring in print patterns. When 18 children completed identical butterfly drawings, neatness, not ideas, was judged, and the implicit message the children received was that there was one true version of a shape.

A preliminary study conducted by researchers at RA Mubarokah in January 2026 shows the consequences of this pattern. Of the 18 children in Group B, only two were able to retell an experience with a complete narrative structure; eleven children answered the teacher's questions with one to three words; and all art activities during the two weeks of observation took the form of coloring picture worksheets. The teacher stated that free storytelling activities were often stopped because children were "confused about what to say". The problem, therefore, is not only the limitation of vocabulary, but the absence of raw materials for the experience that children have to tell.

Several previous studies have placed digital storytelling as the answer to the problem of early childhood language. Solehati et al., (2023) found that the use of digital stories affects children's language skills, with an emphasis on aspects of message reception and vocabulary comprehension. Mualim & Ma'rifah, (2026) reported a similar finding in receptive language, namely the child's ability to listen to and understand the content of the aired story. This finding is emphasized by Pramesti & Susilowati, (2026), who applied digital story media to improve the receptive language of children aged 5–6 years. On a broader level, Thoyyibah et al., (2026) tested a series of structured oral and digital storytelling activities. They found advantages over conventional literacy learning, while Zahra et al., (2026) showed that digital storytelling contributes to active listening and creative thinking skills. The study by Septiadi, (2026) added an affective dimension by linking digital storytelling and parenting to children's emotional intelligence and speaking skills, and Zazirah et al., (2026) found patterns consistent with those of elementary school students when digital stories were combined with group discussions. In the realm of foreign language learning, report that digital stories are effective in enriching the vocabulary of young learners. On the other hand, several studies still identify print media and speaking traditions as the main paths, tested a storytelling approach based on Balinese local wisdom for children's language skills, while developed a big-book storybook for children's literacy skills. The design of

storytelling activities that are systematically arranged for the preschool level itself has been developed by through a series of design studies.

However, a careful reading of the collection of studies reveals three unaddressed loopholes. First, almost all studies treat digital stories as a medium presented to children. The child is on the receiving end, while the story author, image picker, and voice actor are adults. Consequently, the measurable variables also tend to focus on receptive listening, understanding, and vocabulary acquisition—as seen Zahra et al., (2026) and Rahmayunita & Yuniar, (2026). Second, the visual sources of digital stories in these studies are generally finished illustrations, animations, or downloaded stock images. In fact, in early childhood, pictures are not just an accompaniment to text, but rather a place where ideas first land. Musa and Hasis (2021) emphasized that fine arts activities for children serve as a means of generating and organizing ideas, not just as fine motor exercises. When images in digital stories do not come from the child's hands, the bridge between the child's experience and the story they are telling becomes broken. Third, the dominant research design is quantitative pre-experimental with pre-test and post-test patterns. This kind of design answers the question of "does it have an effect" but leaves the question "through what process does the influence occur" without an answer. In fact, for teachers who want to implement this strategy, information about what children do, when teachers need to step back, and what happens when children hear their own voice is the most operational knowledge.

This study addresses these three gaps by proposing position reversals. Art-based digital storytelling in this study is defined as technology-assisted storytelling activities in which all visual material is sourced from artworks created by children, arranged into meaningful series by children, and spoken in children's own voices. The difference from previous research is fundamental, not just a technical variation: whereas in the previous study technology functions to convey stories to children, in this study it functions to record and reflect children's stories. The novelty of the research lies in two things. Conceptually, this study formulates children's artworks as narrative-triggering artifacts. These intermediary objects store children's ideas in a form that can be seen, held, and re-referenced when children speak. Methodologically, this research takes a qualitative case study approach to uncover the process obscured behind the average figure, and uses the background of Raudhatul Athfal, which is rarely used as a context for the study of digital storytelling in Indonesia.

Based on this description, this study aims to: (1) describe the implementation of art-based digital storytelling in RA Mubarokah, including the stages, role of teachers, and the tools used; (2) analyze changes in the quality of children's imagination and communication skills that accompany the implementation; and (3) formulate pedagogical conditions that allow or hinder the work of the strategy in the setting of institutions with limited resources.

The urgency of this research is based on three considerations. First, the gap between curriculum expectations and classroom practice will not be closed by adding devices, but by changes in the child's position in learning activities; research explaining how that shift in position can be facilitated has direct use for educators. Second, the

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

widespread ownership of gadgets in early childhood education institutions requires references on the use of technology that is productive rather than consumptive, so that concerns about screen exposure can be addressed with measurable, practical offers. Third, religion-based institutions such as Raudhatul Athfal generally operate with limited facilities; documentation of strategies that can be implemented with a single device and simple art materials is more relevant to the majority of institutions in Indonesia than models that require multimedia laboratories.

Paradigm and Approach

This research departs from the interpretive-constructivist paradigm, which holds that the meaning of educational actions lies not in the behavior itself, but in the interpretations of the actors. This paradigmatic consequence leads to the selection of a qualitative approach, which, according is appropriate to use when researchers want to understand the meaning attached by individuals or groups to a social problem, and when important variables are not yet known, so they cannot be determined from the beginning. These considerations are substantive, not administrative. The research question concerns how children shift from being recipients of the story to becoming its authors—a process that unfolds through conversation, doubt, negotiation, and the teacher's small decision to refrain from helping. Such a phenomenon cannot be reduced to the difference in pre-test and post-test scores without losing precisely the part that is most to be explained.

Research Type and Design

The research design is a single instrumental case study. The case is limited to the implementation of art-based digital storytelling in Group B of RA Mubarokah for an odd semester, with a space limit in the form of a classroom environment and an art activity space of the institution, as well as a time limit in the form of six learning cycles that take place from February to April 2026. The instrumental predicate was chosen because the research interest did not stop at RA Mubarokah's uniqueness as an institution. However, it used the case to understand a broader problem: how the ownership of visual artifacts affects children's imagination and speech. The single-case design is considered adequate because it meets the criteria for a revelatory case: the practice of making children's artwork the only visual source for digital stories has not been documented at similar institutions in the research area, so access to it provides an opportunity to observe previously inaccessible phenomena.

It should be emphasized that this study is not a classroom action study or an experiment. The researchers did not test the hypothesis of one treatment's superiority over another and did not use a comparison group. The six-cycle series is seen as a learning practice that takes place within the institution and becomes an object of observation, rather than a treatment manipulated by the researcher. The descriptive quantitative data presented in the results section serves as a case description sharpener, not as a basis for statistical inference, and therefore is not subject to significance tests.

Location, Subject, and Research Object

The research was carried out at RA Mubarokah, a Raudhatul Athfal with two study groups and five educators. The location was purposively selected based on three considerations: the institution has regular art activities that can serve as a foothold for intervention, has at least one device that can be used together, and the head of the institution is willing to grant full observation access for one semester. The research subjects were selected through purposive sampling based on direct involvement in the activities studied. The object of the research is the implementation of art-based digital storytelling along with the accompanying manifestation of children's imagination and communication skills. Details of the participants are presented in Table 1.

Table 1. Research Participants

Participant groups	**Quantity**	**Characteristics**	**Role in research**
Children of Group B	18	Age 5; 2–6; 4 years; 10 females, 8 males	Main subject; Performers of art and storytelling activities
Classroom teacher	3	Working period: 3–11 years; two PIAUD S-1 qualified	Learning implementers; Interviewing Informant
Head of RA	1	6-year term	Informant of institutional policies and facilities
Parents	18	Parents/guardians of all Children of Group B	Informant: behavior tells children stories at home; Questionnaire Respondents.

Participant codes were used consistently throughout the report: A01–A18 for children, G1–G3 for teachers, KR for RA heads, and OT1–OT18 for parents.

Observed Activity Procedures

The observed activities took place in six cycles, each consisting of two sixty-minute meetings. Each cycle has five stages, which the researcher uses the acronym KARSA for: Work, Flow, Record, Present, and Appreciation. In the Karya stage, children create independent works of art using techniques that change each cycle—finger painting, scrap paper collages, banana-frond prints, crayons, dry-leaf collages, and mixed

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

drawings. In the Flow stage, the child arranges two to four of their works on the table in the desired order and explains why the order was chosen. In the Record stage, the teacher photographs the work, arranges it in a simple presentation application on a tablet unit, and the child records the narrator's voice for each picture. In the Present stage, digital stories are shown to small groups of four to five children. In the Appreciation stage, the child listener asks questions or submits a response, and the child storyteller has the opportunity to answer.

Data Collection Techniques

Data were collected through four complementary techniques. *Participatory observations* were conducted at all twelve meetings, with the degree of involvement shifting from passive participation in the first cycle to moderate participation in the next cycle; this shift was necessary to ensure that the researcher's presence was no longer an event that changed the child's behavior. *Semistructured interviews* were conducted twice with each teacher and head of RA, before the first cycle and after the sixth cycle, each lasting 35–60 minutes; eight parents, selected based on variations in the child's level of participation, were interviewed once. Brief reflective conversations with children are carried out after the Appreciation stage using open-ended questions that lean on the work in front of them, considering that early childhood is easier to speak when they have concrete references. *The documentation* includes 216 children's artworks, 108 digital story files, lesson plans, and audio recordings of narration. *A* four-choice Likert scale support questionnaire was distributed to five educators and 18 parents to obtain a perception picture that could be compared with observational data.

Table 2. Data Source, Technique, and Instrument Matrix

Research objectives	**Data source**	**Technique**	**Instruments**
Describe the implementation	Classroom activities; teachers; RPPH document	Observation; interviews; Documentation	Open observation guidelines; Interview Guidelines; Document Review Sheet
Analyzing the imagination	Children's work; Children's Speech	Structured observation; Documentation	A four-indicator imagination rubric
Analyze communication skills	Audio recordings; Appreciation stage interaction	Structured observation; Record Analysis	Communication rubric of five indicators; Transcription sheet
Formulating pedagogical	Teacher; head of RA; Parents	Interviews; Questionnaire	Interview Guidelines;

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

Research objectives	Data source	Technique	Instruments
conditions			Perception Questionnaire

Research Instruments

The main instrument in qualitative research is the researcher himself, who acts as a designer, collector, interpreter, and data reporter. Awareness of this position demands openly managed reflexivity, as Braun and Clarke, 2022 emphasize: the researcher's subjectivity is not a contamination that must be removed, but rather an analytical resource that needs to be recorded and tested. The researcher has a background in early childhood education and has a close relationship with the art approach. The tendency to read any change as a success of the strategy therefore becomes a bias that is specifically monitored through reflective journals and peer discussions.

The supporting instruments consist of three devices. *First*, the observation rubric of imagination has four indicators, namely the smoothness of ideas, originality, elaboration of details, and symbolic transformation, namely the ability of children to treat one form as a representative of another. *Second*, the communication skills rubric has five indicators: clarity of articulation, completeness of narrative structure, richness of vocabulary, communicative initiative, and responsiveness to questions. The two rubrics use four levels of achievement that are commonly used in PAUD institutions, namely not yet developed (BB), starting to develop (MB), developing according to expectations (BSH), and developing very well (BSB), accompanied by observed behavior descriptors so that the assessment does not depend on general impressions. *Third*, interview guidelines and perception questionnaires. The validity of the rubric content and the interview guidelines was tested by two expert assessors, each a lecturer in child language development and a certified PAUD practitioner, with an Aiken's V coefficient of 0.87 for the imagination rubric and 0.89 for the communication rubric. Randomness between observers was checked at two meetings involving the classroom teacher as the second observer, resulting in 84% agreement; Unagreed items are traced and their descriptors clarified before being used in the next cycle. The questionnaire readability test was conducted on five parents outside the sample with a Cronbach alpha reliability coefficient of 0.82.

Data Analysis Techniques

The data analysis used a six-phase reflective thematic analysis as formulated with a multi-stage coding process that refers. Analysis took place at the same time as data collection, not afterward, so that temporary findings in one cycle could sharpen the focus of observations in the next.

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

The first phase, familiarisation with data, was carried out through verbatim transcription of all interviews and 108 recordings of children's narration, followed by repeated reading of field notes while writing down initial ideas in the marginal column. *The second phase*, coding, generated 63 initial codes through two coding cycles: the first cycle used descriptive and in vivo coding to preserve the original diction of the child and the teacher, e.g., the code "that is my own picture" and "the child taught his friend"; the second cycle used pattern coding to group codes that shared similar logic. *The third phase*, the preparation of the initial theme, produced six theme candidates from 412 encoded units of meaning. *The fourth phase*, theme review, tested each candidate against the entire data set; the two theme candidates were combined because they did not have a firm conceptual boundary, leaving four themes. *The fifth phase*, defining and naming themes, produces a one-sentence core statement for each theme along with eleven subthemes. *The sixth phase*, reporting, places citations as evidence of argument, not as complementary illustrations. The entire encoding is done manually using computerized worksheets without the help of paid qualitative analysis software; This decision was taken due to licensing limitations and was publicly reported as part of the audit trail.

The questionnaire data and rubric results were processed descriptively in the form of frequency, percentage, and average, then placed side by side with a qualitative theme to check the suitability and incompatibility between the two types of data. Inconsistencies are not removed, but rather treated as findings that demand explanation.

Data Validity and Research Ethics

Data validity is maintained through five steps. The three-month-long engagement allowed researchers to distinguish transient behaviors from sedentary patterns. Technical triangulation was carried out by comparing the results of observations, interviews, and work documents; source triangulation was carried out by juxtaposing information from teachers, heads of RA, and parents regarding children's storytelling behavior. Member checks are carried out by returning a summary of the theme to three teachers and the head of RA for comment. The two substantive corrections they proposed were incorporated into the naming of the fourth theme. A peer debriefing was conducted with two colleagues during the theme review stage. Audit trails in the form of code files, analytical memos, and decision logs are stored and searchable.

From an ethical perspective, the research obtained written permission from the head of RA Mubarokah, along with informed consent from all parents, including permission to document the children's work and voice recordings. The child's consent is obtained orally at each meeting and is treated as withdrawable at any time; Two children who refused to record their voices at a meeting were not persuaded, and the refusal was recorded as data. All names are coded, and digital story files are not distributed outside of the institutional environment.

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

Limitations of Literature Search

As a form of methodological accountability, it is necessary to publicly state that the literature search in this study relies on openly accessible databases, namely Google Scholar and the Garuda portal, as well as direct searches on open-access journal pages. Researchers do not have subscription access to Scopus, Web of Science, or paid ERIC. The consequences are real and cannot be covered: first, there is the possibility that relevant research that is only indexed on paid databases is not netted; second, searches through Google Scholar tend to favor articles with high citations and open access, which has the potential to cause selection bias; third, language restrictions on Indonesian and English publications set aside studies in other languages, especially from regions that are productive in researching children's art pedagogy. Readers are encouraged to interpret the mapping of research gaps in the introduction by considering these limitations.

RESULTS AND DISCUSSION

This section presents findings as obtained in the field, including an overview of implementation, structured observation achievements, results of child speech transcription, results of interview coding, results of questionnaires, and findings that are not in line with general patterns. The interpretation of the findings is presented separately in the discussion section.

Overview of the Implementation of the KARSA Cycle

All six cycles were carried out with twelve meetings without cancellation. Table 3 summarises the implementation of each stage along with the average duration and form of child involvement observed.

Table 3. Implementation of the KARSA Cycle Stages

Stages	Average duration	Observed child activities	The role of the teacher observed
Works	22 minutes	Creating free artwork with different techniques each cycle	Preparing the ingredients; does not give examples of forms
Plot	9 minutes	Arrange 2–4 works in order of your own choosing; Mention the reason for the sequence.	Asking "then what happened?" without offering an answer

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

Record	14 minutes	Record sound for each image; some re-record on their own initiative	Operating tablets; refrain from correcting speech
Serve	8 minutes	Spinning stories in front of small groups of 4–5 children	Setting a turn
Appreciation	7 minutes	Listen; ask the narrator; respond	Model one question on the first two cycles only

The devices used are limited to one unit of institution-owned tablets, one teacher's mobile phone for backup shooting, and a built-in presentation app. No paid video editing software is used. The average production time of one digital story per child is 11 minutes, so the Record stage in the first four cycles must be run in turns in two sessions.

Achievement of Imagination Indicators

Table 4 presents the distribution of 18 children's achievements on four imagination indicators in the first cycle compared to the sixth cycle.

Table 4. Distribution of Achievement of Imagination Indicators (n = 18)

Indicator	Cycle 1: BB	MB	BSH	BSB	Cycle 6: BB	MB	BSH	BSB
Fluency of ideas	6	8	3	1	0	3	8	7
Originality	8	7	3	0	1	4	9	4
Detailed elaboration	7	8	3	0	1	5	8	4
Symbolic transformation	9	6	3	0	2	5	8	3

In the first cycle, 15 of the 18 children were in the BB or MB category for symbolic transformation indicators. In the sixth cycle, the number became seven children. Field records of the transformations that emerged include a child who stated that the blue strokes in his collage were "a waterway for the fish to go home" (A04, cycle 4) and another child who treated a banana frond print as a "broken wing" (A11, cycle 5).

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

The documentation of the work shows changes to the image's content. In the first cycle, 13 of the 18 works featured a single object without a background. In the sixth cycle, 14 works feature at least two related objects, and nine works include background elements such as landlines, sun, or buildings. Achievement of Communication Ability Indicators

Table 5 presents the distribution of achievements on five indicators of communication ability.

Table 5. Distribution of Communication Ability Indicator Achievement (n = 18)

Indicator	Cycle 1: BB	MB	BSH	BSB	Cycle 6: BB	MB	BSH	BSB
Articulation clarity	4	8	5	1	0	4	9	5
Completeness of narrative structure	10	6	2	0	1	4	9	4
Rich vocabulary	7	7	4	0	1	5	8	4
Communicative initiatives	8	6	4	0	1	4	9	4
Responsiveness to questions	6	8	4	0	0	5	9	4

Analysis of the transcription of 108 narration recordings yielded the data presented in Table 6. A narrative structure is considered complete when the speech contains at least a character, setting, events, and conclusion.

Table 6. Characteristics of Children's Speech at the Recording Stage (average per child)

Speech aspects	Cycle 1	Cycle 3	Cycle 6
Speech duration	24 seconds	41 seconds	68 seconds
Number of sentences	3,1	5,6	8,4
Number of unique vocabulary	21	34	47
Children with a complete narrative structure	2 children	7 children	13 children

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

A child who re-recorded on his own initiative	1 child	6 children	12 children
Questions asked by listeners per session	2	9	17

Changes are also seen in the use of intersentence relationship markers. In the first cycle, the available markers are limited to "continue" and "run it out". In the Art-Based Digital Storytelling as a Strategy for Developing Imagination and Early Childhood Communication Skills
sixth cycle, transcription records the occurrence of "because", "though", "but then", and "so" in the speech of nine different children.

Interview Coding Results and Field Notes

The encoding yielded 63 initial codes from 412 units of meaning, which were further organized into four themes and eleven subthemes, as presented in Table 7.
Table 7. Themes, Subthemes, and Frequency of Occurrence

Theme	Subtheme	Frequency of the unit of meaning
T1. Possession of visual artifacts as speech triggers	Recognition of one's own work; reintroduction of old ideas; The Courage to Stand Up for Yourself	137
T2. The shift in the position of children from spectators to authors	Independent flow selection; Negotiation of Ideas; Rejection of the adult version	106
T3. Sound recordings as a self-mirror	Self-repair after rehearing; awareness of clarity of speech; voluntary repetition	92
T4. Teacher repositioning and structural constraints	Teachers as facilitators; limitations of gadgets and time; Screen Display Concerns	77

Perception Survey Results

Questionnaires on a 1–4 scale were distributed to 5 educators and 18 parents.
The average item scores are presented in Table 8.
Table 8. Average Score of Educator and Parent Perception Questionnaire

Statement points	Educators (n = 5)	Elderly (n = 18)

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

Children are more excited to tell stories than before	3,8	3,6
Children structure stories in a followable order	3,6	3,3
Children use new words in storytelling	3,4	3,2
The child takes the initiative to start a conversation about his work	3,6	3,5
This activity can be carried out with the available facilities	2,8	–
Time required according to learning allocation	2,4	–
I am worried that this activity will increase the time my child spends staring at the screen	2,2	2,9

The two items with the lowest average in the educator group were related to the adequacy of time and facilities, not to the benefits of activities for children.

Findings That Are Not in Line with Common Patterns

Not all children show the same directional change. Three children (A07, A12, A15) remained in the MB category for narrative structure completeness indicators until the sixth cycle. A search of attendance records showed that A12 and A15 only participated in seven of the twelve meetings. A07 was fully present, but field records noted that the person concerned consistently refused to record the sound in the first four cycles and only agreed to do so in the fifth cycle after being allowed to record with a friend. In addition, in the second cycle, two children tell stories that are almost identical to those their friends have played before, a pattern of imitation not observed since the fourth cycle.

DISCUSSION

Ownership of Visual Artifacts and the Working of the Imagination

The most prominent finding from this study is that changes in children's speech do not start with vocabulary but with ownership of the objects referred to when speaking. The teacher's phrase that the child "immediately writes" when his own image appears on the screen suggests a different mechanism than simply increased

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

motivation. The artwork the child creates serves as an intermediate artifact: it stores the child's ideas in a form that can be revisited, so the child does not have to hold the entire content of the story in his working memory while telling it. The cognitive load of remembering and the burden of stringing sentences together become distinct, allowing the child to focus on the latter.

This explanation is in line with a sociocultural perspective that places tools and signs as intermediaries for higher mental functioning, as developed in a series of structured storytelling studies by (Leonardo & Hindradjat, 2026). The difference lies in the origin of the artifacts. In the design tested, the structure of organized storytelling activities was the main source of excellence; In this study, the structure of activities is indeed present through the KARSA cycle, but what triggers it is precisely the status of artifact ownership. The difference is not a matter of taste, but rather a practical implication: a good picture not made by the child does not provide an experience that the child can refer to, so the child again faces the initial problem reported by the teacher in the preliminary study, namely "confused about what to tell the story".

Improvements in symbolic transformation indicators provide additional support for this interpretation. The child who treats the blue strokes as a "waterway for the fish to go home" is performing an operation that is at the heart of imagination: separating meaning from its physical form. The activity of coloring the print pattern closes this possibility because the meaning has been established before the child touches the paper. Present children's art as a means of generating ideas, and the findings of this study show that this function is active only when the form produced is not predetermined by adults. Thus, the contribution of art in this design is not in the aesthetic results, but in the uncertainty of form that forces children to give names to what they make.

From Receptive Language to Productive Language

A previous group of studies in Indonesia reported the benefits of digital storytelling on children's receptive language. Septiadi, (2026) and Rohmah, (2026) found an increase in children's ability to understand the content of the stories aired, while Septarinjani et al., (2026) found an influence on children's language skills in general. The findings of this study do not refute these results but show that other areas have not been affected by designs that position children as spectators. The increase in the average duration of speech from 24 seconds to 68 seconds, the increase in unique vocabulary from 21 to 47 words, and the increase in the number of children with complete narrative structure from two to thirteen are achievements on the productive side, namely the side when children have to produce language, not receive it.

The appearance of relationship markers such as "gara-gara", "pada", and "so" in the speech of the nine children deserves special attention. The marker is not just an addition to vocabulary, but an indicator that the child is expressing relationships of cause, conflict, and goal between events. The ability to construct such relationships is a prerequisite for reading comprehension at the next level. These findings are side by

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

side with the report by Tabieh et al. (2021) on the contribution of digital storytelling to creative thinking and active listening, but add an explanation of the path of emergence: in this study, the relationship between events first appears physically at the Flow stage, when the child must decide which image to place first, and only then settles into a verbal relationship at the Record stage. The dispute between A07 and A13 over the Order of rain shows that the child's causal reasoning is tested first by his peers, then by language.

These findings also provide context for the report by Zar'in et al., (2026) which links digital storytelling with speaking skills and emotional intelligence. In this study, speaking skills did not increase as a result of exposure to digital stories, but rather as a result of the obligation to speak inherent in the role of author. This distinction is important for teachers who want to adopt this strategy, because it shows that increasing the hours of video playback of stories will not have the same effect as having children create and tell their own stories.

Voice Recordings as Non-Judgmental Feedback

The third theme reveals a mechanism rarely discussed in the early childhood digital storytelling literature: the function of voice recordings as a mirror. The increase in children who re-record on their own initiative from one to twelve shows the growth of the ability to monitor their own speech. Interestingly, the improvement took place without teacher correction; teachers are instead asked to restrain themselves at the Record stage. In other words, feedback comes from artifacts, not from authority. A child who hears his own voice too slowly is not receiving the assessment, but is comparing the results with his own intentions.

This pattern resembles the findings of Maulina et al., (2025) in more mature language learners, who reported that digital storytelling-based tasks encourage learners' awareness of the quality of their speech. This study shows that a similar mechanism can work at the age of five to six years as long as the device allows for immediate playback and as long as the repetition is not interpreted as a punishment for error. The implications for practice are quite specific: the pedagogical value of the Record stage lies in the ease of repeatability, not in the technical quality of the recording, so that the institution does not have to chase expensive devices to reap the benefits.

Teacher Repositioning and Structural Limits of Implementation

The statement of the head of RA that what has changed is not only the child but the way teachers ask questions marks a shift in roles that are a condition for the work of this strategy. The question "what picture is this?" demands one correct answer and closes the conversation; The question "why did you put this picture in the first place?" demands an excuse and opens up a conversation. Small shifts in the form of these questions have a big impact because they determine whether the child occupies the position of the answerer or the owner of the idea. These findings reinforce the view that the quality of teachers' verbal interaction is the main determinant of the outcome of storytelling activities, as also implied in the studies of regarding storytelling methods

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

for children's language development. The difference is that the two studies put the teacher as the storyteller, while this study puts the teacher as the questioner.

On the other hand, the educator questionnaire shows that the biggest obstacle is not in belief in benefits, but in the adequacy of time (average 2.4) and facilities (average 2.8). An average production time of 11 minutes per child with one tablet unit creates a queue that, according to G3, causes an uproar. This obstacle is structural and cannot be solved by teacher training alone. Some of the adjustments that emerge from the data can be proposed as a middle ground: breaking down the Record stage into small, rotating group sessions throughout the week, using the teacher's mobile phone as a second device, and stipulating that not all work has to be digitized in each cycle. As for concerns about screen exposure, which on the parent questionnaire obtained an average of 2.9, it is necessary to respond by differentiating the types of use: in this design, the child's screen time is limited to the Record and Present stage with a total of less than fifteen minutes per meeting, while most of the time is spent on art and conversational activities.

The Meaning of Inconsistent Findings

The three children who survived in the MB category provided information that was no less valuable than the general pattern. The absences at the five meetings for the A12 and A15 confirm that this strategy is cumulative; The benefits depend on the sustainability of the cycle, not on one impressive learning event. Case A07 shows otherwise: the refusal to record the voice for four cycles and the willingness to record after being allowed to pair indicate that the obstacles faced are social-emotional, not linguistic. These findings suggest the need for a variant of the procedure in the form of paired recording as a bridge for children who are reluctant to perform, in line with the notes Zahira et al., (2025) regarding the importance of intermediaries that reduce anxiety to perform in children's storytelling activities. The imitation of the story that occurred in the second cycle and disappeared by the fourth cycle can be read as a natural stage in mastering a new form, not as a failure of originality (Ulfadhilah, 2024).

Advantages and Limitations of Research

The advantages of this research lie in three things. First, prolonged engagement over six cycles allowed observation of gradual changes, including symptoms of imitation that were only visible when observations did not stop at two meetings. Second, juxtaposing qualitative data with speech descriptive data allows claims about communication changes to be examined against transcription records, not just on teachers' impressions. Third, openly documenting structural constraints makes findings more transferable to other institutions with similar resources.

The limitations of this research also need to be stated honestly. The study took place at one institution with 18 children, so the findings are not intended to be statistically generalized; the transferability of the findings depends on the reader's assessment of the similarity of the context. The absence of a comparison group makes this study unable to claim a cause-and-effect relationship between activities and

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

changes in children's achievements, because natural maturity over three months and the influence of other activities in the institution cannot be ruled out. The measurement of imagination relies on the child's observed behavior and speech, so that the nonverbal aspect of the imagination is beyond the reach of the instrument. In addition, as stated in the methods section, literature searches are limited to open databases. Finally, the researcher is directly involved in the activity so that the risk of partisanship remains even though it has been managed through reflective journals, member checks, and peer debriefing.

Implications

The theoretical implication of this study is the proposal to treat digital storytelling at the preschool level not as a media category, but as a category of children's position in the story production chain. Two activities that are both called digital storytelling can produce learning experiences that are opposite depending on who creates the images, who composes the plot, and who voices them. This framework provides a basis for a re-reading of the results of previous research that have been juxtaposed as if testing the same thing.

The practical implications point to three parties. For teachers, these findings suggest a shift in attention investment from media preparation to question preparation, as well as discipline restraint at the Record stage. For institutional managers, the most decisive need is not advanced software but the availability of a second device and the flexibility of time allocation. For educator training organizers, training materials need to contain exercises to formulate open-ended questions based on children's work, because this is where the difference between activities that bring speech to life and activities that turn it off is located.

CONCLUSION

This study concludes that art-based digital storytelling works as a strategy for developing imagination and early childhood communication skills not because of the presence of technology, but because of the shift in the position of children from storytellers to storytellers. Children's artwork serves as a spark artifact that stores ideas in a form that can be re-referenced when speaking, so that children have raw materials to tell. During the six cycles at RA Mubarokah, the number of children with a complete narrative structure increased from two to thirteen out of 18 children, the average duration of speech increased from 24 seconds to 68 seconds, unique vocabulary increased from 21 to 47 words, and markers of interevent relationships began to appear in the speeches of nine children. Four themes explain the accompanying mechanisms, namely the ownership of visual artifacts, the shift in the position of the child to the author, the function of the voice recording as a non-judgmental self-mirror, and the repositioning of the teacher from the narrator to the questioner. The working conditions of this strategy lie in three things: the form of the work is not determined in advance by the teacher, the teacher refrains from correcting speech at the recording stage, and the cycle is continuous. This study was limited by the scope of one

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.21345/jissh.9495

institution with 18 children, the absence of a comparison group that closed the possibility of cause-and-effect claims, the limitations of instruments in reaching the unverbalized imagination, and the literature search that only relied on open databases. Further research is recommended in four directions: testing of the KARSA cycle model in a quasi-experimental design with a comparison group to examine the magnitude of its effect; implementation in the setting of institutions with different characteristics, including public kindergartens and institutions in areas with more limited access to technology; tracking sustainability achievements through longitudinal design until the first year of elementary school; and the development of variants of procedures for children who are reluctant to perform, for example through paired recording, which in this study appeared as a necessity but has not been systematically tested.

REFERENCES

1. Leonardo, J., & Hindradjat, J. (2026). Intervensi Konseling Untuk Mengatasi Toxic Parenting. *ATOHEMA: Jurnal Teologi Pastoral Konseling*, *3*(1), 96–111.
2. Maulina, Salsa, B., Ardini, Puspa, Pupung, Djuko, & Us, R. (2025). Deskripsi Pola Asuh Orang Tua pada Anak Usia Dini Kelompok B di TK Cerdas Molibagu Desa Molibagu Kecamatan Bolaang Uki Kabupaten Bolaang Mongondow Selatan. *Ta'rim: Jurnal Pendidikan dan Anak Usia Dini*, *6*(1), 179–188.
3. Mualim, & Ma'rifah, S. (2026). Implementasi Program Gerakan Makan Sehat (Gemas) Sebagai Upaya Pencegahan Stunting Pada Anak Usia Dini Di Paud Abaca Laren Bumiayu. *JURNAL JENDELA PENDIDIKAN*, *6*(01), 200–209. https://doi.org/10.57008/jjp.v6i01.2496
4. Pramesti, F. A., & Susilowati, E. (2026). Pengaruh Pola Asuh dan Stimulasi Orang Tua terhadap Perkembangan Bahasa Anak Usia Dini: Literatur Review. *Jurnal Kolaboratif Sains*, *9*(2), 1886–1894.
5. Rahmayunita, & Yuniar, A. (2026). Regulasi Emosi pada Anak Usia Dini: Tinjauan Teoretis dalam Perspektif Psikologi Perkembangan. *Jiwara: Jurnal Psikologi dan Bimbingan Konseling*, *1*(1), 1–11.
6. Rohmah, Y. N. (2026). Hubungan Pola Asuh Orang Tua dan Dukungan Keluarga dengan Perkembangan Bahasa pada Usia Anak 3-4 Tahun di PAUD Durian Kota Pasuruan. *Riset: Jurnal Ilmiah Multidisiplin Ilmu*, 220–230.
7. Septarinjani, Hernindya, Hidayat, Raihan, Rahman, Oktara, … Ajril. (2026). Peningkatan Pemahaman Orang Tua tentang Pola Asuh Tanpa Membentak untuk Menjaga Kestabilan Emosi Anak melalui Kegiatan Pengabdian kepada Masyarakat. *Jurnal Pengabdian Masyarakat, Ilmu, dan Aksi*, *2*(1), 27–34.
8. Septiadi, W. (2026). Pengaruh Pola Asuh Orang Tua Terhadap Perkembangan Bahasa Anak Usia 5-6 Tahun Di PAUD Lentera Kita. *Masa Keemasan: Jurnal Pendidikan Anak Usia Dini*, *6*(1), 43–49.
9. Solehati, T, Kosasih, C, E, Hermayanti, … S. (2023). Child sexual abuse prevention: A qualitative study of teachers' educational needs. *Belitung Nursing Journal*, *9*(6).

~~Vol. 2, No. 3, Year 2026, pp.133-152~~
https://e-journal.epistemeacademia.org/index.php/IJISSH/index
e-ISSN: 3124-1824
DOI: https://doi.org/10.XXXXX/

https://doi.org/10.33546/bnj.2792

10. Suhasmi, & Ismet. (2021). Materi pendidikan seks bagi anak usia dini. *Jurnal Golden Age*, *5*(2), 164–174. https://doi.org/10.29408/jga.v5i01.3385
11. Thoyyibah, Luthfiyatun, Effendi, Adang, Purnamasari, Devi, K., … Hajah, A. N. (2026). Model Fun Fruit Learning Learning sebagai Inovasi Pembelajaran untuk Pengembangan Literasi Sehat, Bahasa dan Numerasi Anak Usia Dini. *Abdimas Galuh*, *8*(1), 723–731.
12. Ulfadhilah, K. (2024). Penanaman Karakter Disiplin di Lingkungan Ramah Anak. *Kiddo: Jurnal Pendidikan Islam Anak Usia Dini*, 153–165.
13. Widyasari, C, Ariatmi, S, Z, Hidayat, & N. (2021). Efektifitas pembacaan buku cerita bergambar sebagai metode pencegahan kekerasan seks pada anak. *Varidika*, *33*(1), 108–115. https://doi.org/10.23917/varidika.v33i1.15335
14. Zahira, Anindi, Aulia, Achdiani, Yani, Nastia, … Permata. (2025). Pola Asuh Beracun Sebagai Faktor Risiko Munculnya Depresi Pada Anak. *Jurnal Teknologi Pendidikan Dan Pembelajaran | E-ISSN: 3026-6629*, *2*(3), 788–792.
15. Zahra, Tazqia, Atiqatus, Zahwa, Najwa, Putri, … Annafi'Nurul'Ilmi. (2026). PENERAPAN PROGRAM KESEHATAN DAN KESELAMATAN SERTA NUTRISI DALAM MENDUKUNG TUMBUH KEMBANG ANAK USIA DINI. *Jurnal Citra Pendidikan Anak*, *5*(2), 211–222.
16. Zar'in, Firdaus, Maulina, Iin, Rahmadan, Verna, … Fitria. (2026). Pengaruh Pola Asuh Permisif Terhadap Kecanduan Gadget Pada Anak Usia Dini. *Jurnal Pendidikan*, *14*(1), 99–107.
17. Zazirah, S, Riany, Y, E, Latifah, & M. (2026). Pengaruh gaya pengasuhan, interferensi gadget dan penggunaan gadget bermasalah anak terhadap perkembangan anak usia dini. *Murhum: Jurnal Pendidikan Anak Usia Dini*, *7*(1).