

Embodied Aesthetic Reading in Interactive Books for Toddlers.

Material Interactivity, Adult Mediation,
and Meaning-Making in Early Childhood

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ABSTRACT

Interactive books for young children invite readers to act through tactile, mechanical, and performative elements that transform reading into a multisensory event. Despite their growing presence in early childhood settings, the aesthetic and participatory dimensions of such books have received limited scholarly attention. This article examines how material interactivity is realized in shared reading situations involving toddlers aged one to three years in an Early Childhood Education and Care context.

Combining literary analysis with qualitative ethnographic observation, the study analyses three contemporary interactive board books: *JAFS!* (2021), *Lille snakkebjørn* (2020), and *Lille sjiraff* (2020). Drawing on reader-response theory, particularly the work of Louise Rosenblatt and Wolfgang Iser, the article explores how different interactive mechanisms organize participation, bodily engagement, and meaning-making in reading events.

The analyses show that interactive books for toddlers are not a homogeneous category but invite different forms of participation through distinct material mechanisms. By foregrounding how individual book designs organize participation differently, the article contributes to reader-response theory and advances research on interactive books by demonstrating how material mechanisms shape aesthetic participation in early childhood reading.

KEYWORDS

Embodied reading; reader-response theory; toddler reading.

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1. Introduction*

Interactive books invite readers to act. Rather than offering a purely visual or verbal experience, they incorporate mechanisms, textures, apertures, flaps, pull-tabs, or puppet elements that require the reader in order to lift, turn, pull, insert, touch, or animate for the book to be fully realized. In such books, interactivity is not simply an attractive feature added to a conventional text; rather, it constitutes a mode of participation through which the material design of the book organizes how meaning emerges in reading events. This is especially significant for toddlers, whose early reading practices are predominantly sensorimotor, affective, and social. For the youngest readers, the book is first encountered not only as text, but as an object to grasp, turn, press, mouth, shake, and explore.

Interactive books for children also belong to a much longer history of movable and mechanical books. Long before interactivity became associated with children's publishing, flaps and rotating discs were used in medieval and Renaissance manuscripts to visualize scientific, astronomical, medical, and theological knowledge. Volvelles, layered flaps, and other movable devices enabled readers to manipulate information physically. As later scholarship has shown, movable and mechanical elements have long played a role in structuring reader participation in books, and the history of interactive books is deeply intertwined with the history of material design and paper engineering (Pollone 2025; Tisinger 2025). Over time, such devices migrated into children's publishing, where interactivity became associated not only with instruction, but with visual fascination, play, and tactile engagement.

Recent contributions in the "JIB. Journal of Interactive Books" have richly documented the historical development, mechanical ingenuity, and transnational circulation of movable and interactive books, particularly from the nineteenth and early twentieth centuries (Pollone 2025; Tisinger 2025). Across historical, bibliographical, and intermedial perspectives, these studies illuminate the material complexity of flaps, volvelles, articulated plates, and pop-up mechanisms, situating interactive books within broader networks of design, production, and cultural exchange. By foregrounding the book as object, artefact, and engineered construction, "JIB" scholarship has established material interactivity as a significant dimension of book history and children's publishing.

However, less attention has been given to how contemporary interactive board books for toddlers are engaged with in everyday reading practices. While many historical movable books were costly artefacts preserved in archives, museums, and private collections, today's interactive board books are mass-produced, commercially available, and designed for intensive everyday use. They frequently combine paper-based mechanisms with textile elements, plush components, finger puppets, synthetic materials, and tactile surfaces.

At the same time, research on interactive books remains uneven. Existing studies have largely focused on digital interactive storybooks and on how embedded animations, hotspots, and multimedia features influence children's attention, vocabulary, or comprehension (Bus, Takacs & Kegel 2015; Takacs, Swart & Bus 2015). This work has generated important knowledge but

* This article is based on ethnographic observations conducted in a Norwegian Early Childhood Education and Care (ECEC) setting as part of a small-scale research collaboration between Volda University College and a local kindergarten. The photographs included in the article were taken by the author during the fieldwork. All websites cited in this article were last accessed on 12 March, 2026.

primarily concerns preschool or school-aged children and often takes place in experimental or controlled settings. By contrast, physical interactive books for toddlers – including tactile board books, puppet books, and mechanically interactive books – have received far less systematic attention.

Early literacy research has demonstrated that shared reading is relational, multimodal, and shaped by gesture, attention, and dialogue (Bus, van IJzendoorn & Pellegrini 1995; Sipe 2008). Yet such work rarely differentiates between materially distinct forms of interactivity embedded in the books themselves. Interactive books are often treated as a homogeneous category rather than as aesthetically and materially different artefacts that organize participation in different ways. This article addresses that gap by examining three contemporary interactive board books for toddlers as literary, material, and participatory artefacts. Drawing on reader-response theory, particularly Louise Rosenblatt's concept of aesthetic reading and Wolfgang Iser's notion of textual gaps, the study conceptualizes toddlers as active readers who realize texts through bodily action, repetition, anticipation, and play. By combining literary analysis with ethnographic observation and educator interviews, the article investigates how different forms of material interactivity shape toddlers' aesthetic reading experiences in everyday early childhood education and care settings (ECEC).

The study is guided by the following research questions:

- 1) How do toddlers aged 1-3 engage with interactive books through embodied, playful, and affective practices in everyday early childhood education and care contexts?
- 2) How do different forms of material interactivity organize toddlers' participation and aesthetic reading experiences?
- 3) How does adult mediation shape or constrain the realization of interactive mechanisms in toddler reading events?

By analyzing three materially distinct books – *JAFS!* (Miller 2021), *Lille snakkebjørn* (Takken 2020) and *Lille sjiraff* (Huang 2020) – the article argues that interactivity functions as an organizing aesthetic principle rather than as a neutral feature. Different mechanisms distribute agency differently between child, adult, and object, thereby shaping what kinds of reading events can emerge. The article also argues that adult mediation is not merely pedagogical support around the literary event but an integral part of how the literary event itself is realized. In this sense, interactivity is not merely a feature of children's books but a structural principle that organizes how the literary event unfolds.

2. Theoretical Framework

2.1. Aesthetic reading and transaction

This study draws primarily on Louise Rosenblatt's transactional theory of reading. For Rosenblatt, reading is not the extraction of a stable meaning from a fixed text, but an event that emerges through the transaction between reader and text in a particular situation (Rosenblatt 1965, 1995). She distinguishes between efferent reading, oriented towards information to be carried away, and aesthetic reading, which centers on what the reader lives through during the reading event. In aesthetic reading, meaning emerges through sensation, feeling, rhythm, expectation, and imaginative engagement.

Rosenblatt's framework is particularly productive for examining toddlers' encounters with books. Very young children often do not respond to literature primarily through verbal commentary or reflective interpretation. Instead, they live through books bodily: by touching textures, anticipating

repeated events, vocalizing with delight or hesitation, and using gestures, movement, and affect as ways of participating in the unfolding event. In this sense, toddlers' reading practices are often predominantly aesthetic. Meaning is realized through what the child does, feels, and anticipates in relation to the book.

This does not mean that toddlers' reading is less literary or less meaningful than older readers' engagement. Rather, it means that literary participation begins in forms that are embodied, affective, and sensorimotor. Interactive books make such modes of reading especially visible because they explicitly organize meaning around activation and bodily response.

2.2. Iser, gaps, and material indeterminacy

Wolfgang Iser's reception theory provides a further lens for understanding toddlers' participation in interactive books. According to Iser, literary texts contain gaps or indeterminacies that invite the reader to participate in the production of meaning (Iser 1978, 1981). Meaning emerges not because everything is fully stated, but because something is left open and must be realized by the reader.

While Iser developed this theory primarily in relation to adult literary reading, his concept of gaps can be extended productively to interactive books for young children. In such books, indeterminacy is not only verbal or narrative; it is also material. A flap that has not yet been lifted, a puppet that has not yet been animated, an open mouth waiting to be fed, or an aperture waiting for a finger to enter can all be understood as materialized gaps. These gaps invite completion through bodily action rather than through verbal inference alone.

For toddlers, such gaps are often realized through exploration, repetition, imitation, and play. The literary event is not separate from the mechanism; rather, the mechanism becomes part of the text's openness. Interactive books thus make particularly visible how reading involves action, expectation, and completion.

2.3. Materiality, multimodality, and the book-toy hybrid

Research on children's literature has increasingly drawn attention to materiality and multimodality as constitutive dimensions of reading, especially for younger children (Kress 2010; Kümmerling-Meibauer 2015; Kümmerling-Meibauer 2018). Before children engage books as abstract verbal structures, they encounter them as objects with weight, shape, texture, and resistance. Board books for toddlers are especially significant in this regard because they are designed to be grasped, carried, dropped, turned, and explored bodily.

Interactive board books occupy a particular hybrid position between book and toy. They challenge narrow distinctions between reading and play by making tactile, mechanical, and performative action part of the literary experience. As Mackey (2016) argues, playful engagement should not be treated as a preliminary stage to 'real' reading, but as a legitimate mode of meaning-making. In the case of interactive books for toddlers, play is not external to the text; it is a way of realizing the text.

This perspective also aligns with embodied cognition research, which emphasizes that meaning making is grounded in perception, action, and bodily experience rather than in abstract cognition alone (Glenberg 2010; Hayles 2012). For toddlers, touch, movement, anticipation, and affect are not secondary to reading; they are central to how books become meaningful.

2.4. Adult mediation as part of the literary event

Early literacy research has long established that adult mediation matters in shared reading. Adults organize attention, frame questions, modulate pacing, and create spaces for participation (Bus, van IJzendoorn & Pellegrini 1995; Sipe 2008). In interactive books, however, adult mediation

takes on an additional significance. Adults do not only support comprehension; they may also control access to the mechanism itself, pace suspense, animate puppet voices, or decide whether a child's bodily initiative is expanded or curtailed.

This means that adult mediation should not be treated merely as pedagogical scaffolding around a literary event. In interactive books for toddlers, adult mediation can be constitutive of the literary event itself. It shapes whether the book remains open to child-led action or becomes adult-led performance. A Rosenblatt-inspired approach is especially useful here, because it allows the reading event to be understood as relational and situational rather than as a fixed property of the text. Likewise, an Iserian perspective helps illuminate how adults may either open or pre-fill the gaps through which toddlers might otherwise participate.

Together, Rosenblatt and Iser make it possible to analyze the dyad – or more precisely the shifting relation – between child reader, adult support, and individual book. They allow us to ask not only what each book affords, but how each book is engaged with and received in specific embodied encounters.

3. Method

3.1. Research design and context

This study combines literary analysis with qualitative ethnographic observation to examine how interactive board books for toddlers are realized in everyday early childhood settings. Rather than evaluating literacy outcomes, the study investigates how material interactivity becomes activated through embodied engagement, play, and adult mediation.

The empirical material was collected in a Norwegian municipal the early childhood setting involving toddlers aged one to three years. Observations focused on naturally occurring book interactions during free play and shared reading situations. The study adopts a qualitative and interpretive approach, attending closely to bodily gestures, vocalizations, affective responses, spatial arrangements, and relational dynamics as integral components of the reading event.

3.2. Material environment and selection of books

The study formed part of a small-scale learning and development collaboration between a higher education institution and a local early childhood setting. Through a research group on early literacy, funding was allocated for the acquisition of interactive books for children aged 0-3. A collection of approximately fifty contemporary board books containing tactile, mechanical, or sensorimotor interactive elements was assembled. The intention was to create a rich material environment – a kind of 'book bath' – in which toddlers could encounter a wide range of interactive book formats during everyday play and shared reading situations.

The selection criteria were intentionally broad. All books had to be durable board books designed for toddlers and include some form of tactile, mechanical, or sensorimotor interactivity. The aim was not to construct a canon of exemplary literary works but to approximate the kinds of interactive books commonly available to parents and the early childhood staff in contemporary retail contexts. Because toddlers rarely select or purchase books themselves, the broader collection also reflects adult selection practices.

From this larger collection, three books were selected for close analysis because they exemplify contrasting forms of material interactivity and generated particularly illustrative observation episodes during the fieldwork. The selection therefore reflects both analytical variation in mechanisms and empirical relevance in the observed reading events. The selection was therefore not intended to represent the genre but to enable close analysis of how specific books organize

participation through distinct material mechanisms:

- *JAFS!*, representing open mechanical sensorimotor interactivity;
- *Lille snakkebjørn*, representing adult-mediated performative interactivity;
- *Lille sjiraff*, representing child-accessible finger-puppet interactivity.

These books extend the book beyond a two-dimensional reading surface and transform it into a small three-dimensional play object. Each incorporates moving or tactile elements that invite touching, inserting fingers, pulling, feeding, or animating. In this sense, the books function not only as carriers of verbal text but as material artefacts that encourage sensorimotor exploration and playful experimentation, offering toddlers multiple entry points into the reading event.

3.3. Participants and data generation

Data were collected on a toddler unit in a Norwegian municipal the early childhood setting (ECEC). The group comprised seventeen children aged 1-3 years. All names used in the article are pseudonyms. The unit was staffed by one to three adults depending on the time of day.

Fieldwork took place over seven weeks and included five observation days, each lasting approximately four to five hours. Observations were conducted at different times of day to capture variation across daily routines, including free play, transitions, and quieter shared reading situations. The researcher was present as an adult observer participating in everyday activities without directing reading practices.

Observations were documented through detailed field notes written during and immediately after each session. Particular attention was paid to bodily action, touch, spatial positioning, vocalization, repetition, affective response, and interaction between children, adults, and books. In addition, brief informal and semi-structured conversations with educators provided contextual insight into their perceptions of children's engagement with interactive books.

3.4. Analytical approach

The analysis proceeds in two integrated steps. First, each of the three books is examined as a material and aesthetic artefact, with attention to visual style, narrative organization, mechanisms, and interactive affordances. Second, observational episodes involving the books are analyzed through the lenses of reader-response theory and reception theory, extended to account for embodied and sensorimotor engagement.

Rather than coding behaviors into fixed developmental categories, the analysis focuses on moments in which the books' material designs become activated through bodily participation. Particular attention is given to how toddlers realize material and textual gaps through touching, inserting, pulling, hesitating, withdrawing, repeating, imitating, and extending the interaction into play. The aim is not to document individual developmental trajectories but to illuminate how different interactive designs shape the conditions for aesthetic participation.

3.5. Ethical considerations

The study was conducted in accordance with relevant ethical guidelines for research involving young children. Written informed consent was obtained from parents or guardians. Pseudonyms are used throughout and identifying details have been omitted. No video recordings were made. Observations were limited to everyday the early childhood setting activities to minimize disruption and preserve ecological validity.

3.6 Scope, limitations, and researcher reflexivity

The study is small in scale and situated in a single the early childhood setting. The findings are therefore presented as analytical insights rather than statistically generalizable claims. The aim

is not to represent all forms of toddler reading but to illuminate how specific interactive designs organize participation and embodied engagement in everyday contexts.

A further limitation concerns documentation methods. Because the study prioritized minimally intrusive observation in a toddler setting, no video recordings were made. While this limits the possibility of analyzing fine-grained micro-movements, the use of detailed field notes written during and immediately after observations allowed close attention to sequences of action, affective responses, and relational dynamics.

The researcher entered the setting as a known adult to the staff but as a new adult to the children. Maintaining a stance of participatory observation involved joining everyday routines while avoiding directing or structuring reading events. Reflexive notes were kept regarding moments where the researcher's presence might have influenced interaction, for example when children approached the researcher with books. These reflections informed decisions about when to step back in order to preserve child-led engagement.

Finally, the observations were conducted within the natural rhythms of the early childhood environment, where attention, fatigue, transitions, and peer dynamics inevitably shaped engagement with books. Rather than treating these factors as methodological confounds, the study recognizes them as constitutive conditions of everyday reading practices. The design therefore aims to capture how interactive books organize participation under ordinary circumstances where attention is negotiated rather than guaranteed.

4. Analysis and findings

Analytic focus is placed on how mechanisms organize sequences of action and affect in situ. Each case description begins with salient features of mechanism and affordance and then turns to episodes of activation that illuminate participation logics. Short vignettes are chosen to foreground variation (e.g., cautious approach vs. exuberant mastery) rather than to illustrate a single 'ideal' interaction. The cross-case synthesis then identifies design-relevant regularities that bear on participation in practice.

The analysis focuses on three interactive board books that represent distinct forms of material interactivity and afford different modes of participation. While all three operate at the boundary between book and toy, they organize interactivity in fundamentally different ways. The analyses attend both to the books as individual works and to how they are engaged with and received by toddlers in relation to adult support.

4.1. *JAFS!*: Open sensorimotor interactivity and embodied suspense

JAFS! (2021; original title: *Munch!*)¹ foregrounds sensorimotor engagement as the primary mode of reading. Visually, the book draws on a flat modernist design aesthetic characterized by sharply delimited color fields, minimal modelling, and strong contrasts. Each spread presents a frontal animal face with an exaggerated open mouth. Background detail is reduced to a minimum, directing attention towards the mouth as both visual focal point and site of interaction. Saturated pink inside the mouths intensifies the affective and tactile emphasis on the interior space of the jaw. The book centers the open mouth as the primary site of action (**Fig. 1 a, b**).

The book's mechanism is simple but effective. The book invites interaction through felt teeth and a movable flap that structures the reader's participation. Each animal face contains soft felt teeth and a movable flap that activates both jaw and eyelids. The verbal text reinforces a cyclical dramaturgy of invitation, counting, and closure: the animal is hungry, the reader is invited to feed it, suspense builds through counting, and the spread culminates in *JAFS!*.

¹ Edward Miller, *JAFS!*, translated by Iselin Røsjø Evensen, Oslo, Story House Egmont, 2021 (Norwegian edition); original edition: Id., *Munch!* [*Chomp!*], text by Rosie Greening, Berkhamsted, Make Believe Ideas, 2021.



Fig. 1 a, b. || *JAFS!*, cover and open mouth with felt teeth.

Narrative progression is minimal. Instead, the book organizes an aesthetic experience structured around repetition, timing, anticipation, and controlled risk. Suspense lies not in what happens next, but in when and how the mouth will close.

From an Iserian perspective, the open mouth functions as a materialized gap. It demands completion through bodily action: the reader must insert a hand, offer pretend food, or otherwise activate the mechanism. The text does not prescribe a single correct completion; rather, it invites experimentation and repetition. At the same time, the verbal frame adds a playful threat. The animal may ‘bite’, creating a mild aesthetic risk that is both dramatized and immediately neutralized through humor.

Observations illustrate how toddlers realize this design through embodied action. Alida (2.4 years) initially approaches the book cautiously. She first touches the felt teeth with one finger before gradually inserting her whole hand into the animal’s mouth. When the animal’s eyes are closed, she points at them and says “lalla” (“sleeping”). In that moment, she actively fills a material gap with meaning drawn from her own experiential vocabulary. The mechanism is therefore not simply manipulated but interpreted through embodied association.

This episode resonates strongly with Rosenblatt’s concept of aesthetic reading. Meaning emerges not as extracted information but through what Alida lives through in the event: hesitation, touch, interpretation, and bodily trial. The suspense of whether the animal will ‘bite’ allows her to explore fear, excitement, and mastery within a safe and repeatable structure.

The interaction does not remain confined to the page but expands into imaginative play. Alida and Rebekka (1.6 years) later fetch toy food from the play kitchen and continue feeding the animals. The book thus extends beyond its own material boundaries and becomes integrated into a broader play scenario. In Iserian terms, the material gap remains productive. It is not resolved once and for all but continues to invite extensions, improvisations, and re-enactments.

4.2. *JAFS!* in peer interaction, imitation, and collective meaning-making

Toddlers’ engagement with *JAFS!* is also strongly shaped by peer presence. When Alida confidently inserts her hand into the animal’s mouth, Sindre (1.8 years) and Noa (1.6 years) initially remain nearby and watch. Their bodies lean forward, and their eyes follow her movements. After several repetitions, Sindre cautiously reaches towards the felt teeth with a finger and quickly withdraws when the flap closes. Only after observing that Alida repeats the action without negative

consequences does he try again and remain in the mouth for longer.

This progression – from watching, to touching, to participation – illustrates how interactive books can support shared aesthetic meaning-making through imitation. The reading event becomes collectively organized: one child’s action opens a pathway for another. In this sense, the reader implied by *JAFS!* is not simply a solitary individual but a small social constellation gathered around the mechanism.

A Rosenblattian perspective helps illuminate this collective dimension. The transaction between reader and text is mediated by other readers. The children respond not only to the book but also to one another’s actions. Suspense, laughter, caution, and confidence circulate socially, and the event becomes triangular, involving child, book, and peer. Observing another child successfully engage with the mechanism reduces uncertainty and legitimizes participation.

Repeated encounters with *JAFS!* further reveal how aesthetic meaning unfolds over time. On later observation days, Alida approaches the book without hesitation and laughs even before the mouth closes. What initially involved cautious testing has become routinised mastery. Repetition here is not redundancy but deepens the aesthetic event. Suspense becomes something anticipated and enjoyed in advance. This aligns closely with Rosenblatt’s emphasis on the lived-through quality of aesthetic reading: meaning resides in the rhythm of anticipation, action, and release rather than in narrative closure.

At the same time, younger children participate differently. Rebekka initially restricts herself to touching the felt teeth and repeatedly opening and closing the flap. These micro-actions are not incomplete forms of reading but meaningful forms of participation. The book allows children with different bodily competencies to enter the same aesthetic event at different levels.

4.3. *Lille snakkebjørn*: performative interactivity and adult-mediated narrative

Lille snakkebjørn (2020; the title means: ‘Little Talking Bear’)² combines a board book with an integrated hand puppet inserted through an opening in the bear’s face. Visually, the book adopts a warm, representational illustration style characterized by rounded contours, recognizable characters, and expressive facial features. The cover’s bear ears reinforce the book’s hybrid status as both object and character. Unlike *JAFS!*, which centers suspense and tactile risk, *Lille snakkebjørn* stages dialogue and personality through performance. The book integrates a hand puppet into the page, enabling performative interaction (Fig. 2 a, b).



Fig. 2 a, b. || *Lille snakkebjørn*, cover with integrated hand puppet and board book with integrated hand puppet mechanism.

² Sylvia Takken, *Lille snakkebjørn*, text by Helmi Verbakel, Oslo, Goboken, 2020.

Narratively, the book is organized around a loose episodic structure. On each spread, the little talking bear asks a question, and another character responds. The recurring formula “SNIKKETI-SNAKK” [‘chatter-chatter’] introduces the bear’s voice and establishes a playful verbal rhythm (Fig. 2 c). The book therefore contains more overt narrative and verbal scaffolding than the other two books analyzed here.



Fig. 2 c. || *Lille snakkebjørn*, first spread introducing the recurring formula “SNIKKETI-SNAKK”.

Yet the key mechanism is adult dependent. The puppet can only be fully animated by an adult hand inserted behind the book. This has significant implications for how the book is engaged with and received. While the book appears interactive, its core interactivity is performative rather than open: the adult controls movement, voice, timing, and affective framing.

This becomes visible in the observations. Harald (2.2 years) repeatedly presses the puppet’s face into the floor, focusing less on the narrative and more on the puppet as a material object. Noa (1.6 years) circles behind the book to locate the adult hand animating it. In both cases, the toddlers appear highly attentive to the source of animation itself. The central question becomes not only what the bear says but who makes it move.

These episodes are revealing in relation to both Rosenblatt and Iser. The book offers what appears to be dialogic openness, but much of its indeterminacy is already pre-filled through scripted questions and adult-controlled performance. The child’s role is therefore less to complete a gap through bodily activation than to respond to an already performed event. A Rosenblatt-inspired reading of this dyad – child reader and adult support in relation to the individual book – suggests that the child’s lived-through experience is shaped as much by the adult’s performance choices as by the book’s textual or visual properties.

Educator comments supported this interpretation. One educator noted that the children often seemed less interested in the verbal content than in whether the bear was still moving. Another described how altering the puppet’s voice or movements immediately changed children’s engagement. In this sense, Little Talking Bear demonstrates how adult mediation may become the dominant force in the aesthetic event.

The book’s interactivity is therefore somewhat paradoxical. It invites participation but centralizes agency in the adult. The child may laugh, watch, touch, or track the puppet, yet cannot easily realize the central mechanism independently. Compared with *JAFS!*, the book offers a more constrained form of aesthetic participation: interactivity becomes something performed for the child rather than enacted by the child.

4.4. *Lille sjiraff*: finger-puppet interactivity and shared agency

Lille sjiraff (2020; original title: *Baby Giraffe*)³ represents a third mode of interactivity. The book contains a small finger puppet accessible from the front of the page, allowing either child or adult to insert a finger and animate the giraffe's head. Visually, the book is calmer and more subdued than *JAFS!*. The color palette is softer, the composition more open, and the visual field less intense. The giraffe's elongated neck creates a gentle vertical line that guides attention upward. The puppet can be animated directly through the front opening (Fig. 3 a, b, c).



Fig. 3 a, b. || *Lille sjiraff*, cover and back cover showing the opening that allows the reader to insert a finger and animate the giraffe puppet.



Fig. 3 c. || *Lille sjiraff*, first spread with the finger-puppet giraffe activated through the opening in the page.

Narratively, the book is minimal and cyclical. The giraffe wakes, blinks, and stretches. There is no strong suspense structure and little dramatic escalation. Instead, the book organizes a low-intensity rhythm of movement and attunement.

³ Yu-Hsuan Huang, *Lille sjiraff*, translated by Iselin Røsjø Evensen, Oslo, Story House Egmont, 2020 (Norwegian edition); original edition: Id., *Baby Giraffe. Finger Puppet Book*, San Francisco, Chronicle Books, 2017.

This design has important consequences for participation. Unlike the adult-controlled mechanism in *Little Talking Bear*, the puppet in *Baby Giraffe* is directly accessible to toddlers. The mechanism therefore distributes agency more evenly between child and adult, allowing control to shift fluidly between them.

Observations show that Sindre repeatedly inserts his finger into the puppet opening, withdraws it, and reinserts it while vocalizing softly. The action does not primarily advance the narrative; rather, it constitutes sensorimotor exploration of movement, resistance, and responsiveness. In Iserian terms, the puppet opening functions as a material gap that invites activation, but in a gentler and less urgent form than the open mouths of *JAFS!*.

Rosenblatt's framework further illuminates the character of this interaction. The aesthetic experience here is not dominated by suspense or by adult performance but by quiet coordination and rhythmic participation. Meaning emerges through tactile activation, timing, and a sense of co-presence. When adults join, they do not necessarily take over but may share animation or mirror the child's tempo. The dyad between child reader and adult support is therefore configured differently here than in *Lille snakkebjørn*: less hierarchical and more collaborative.

At the same time, *Lille sjiraff* often produces shorter and calmer engagements than *JAFS!*. Its low-intensity interactivity appears particularly suited to quiet shared reading moments rather than extended, high-energy group exploration. This does not make it aesthetically weaker but suggests that different designs organise different affective and temporal possibilities.

4.5. Cross-case synthesis: interactivity as participation structure

Taken together, the three books illustrate that interactive board books for toddlers do not form a homogeneous category. Instead, they organize participation in materially and aesthetically different ways.

JAFS! relies on open mechanical sensorimotor interactivity. It invites direct child activation, repetition, suspense, and collective imitation.

Lille snakkebjørn foregrounds performative interactivity. It offers stronger narrative framing but centralizes agency in adult-controlled puppet performance.

Lille sjiraff supports shared finger-puppet interactivity. It enables child activation and adult collaboration, but in a calmer and lower-arousal register.

These differences can be understood as distinct participation structures or modes of interactivity. They shape how agency is distributed, what kinds of bodily action are possible, how adults enter the event, and what affective tone the reading event acquires. In this sense, interactivity is not merely an attractive feature added to books for young children. Rather, it functions as an organizing aesthetic principle that shapes how meaning, relation, and participation emerge.

5. Discussion

5.1. Interactivity as an organizing aesthetic principle

The preceding analyses illustrate how different material mechanisms organize participation in distinct ways across the three books. The analyses demonstrate that interactivity in books for toddlers cannot be understood as a stable or uniformly positive feature, but must be examined in relation to material design, mechanism, and social mediation. Rather, interactivity functions as an organizing aesthetic principle whose effects depend on material design, mechanism, and social mediation. The books analyzed here differ not only in what kind of interaction they contain, but in how they structure participation.

This challenges approaches that treat interactivity as a general marker of engagement or educational value. A tactile mechanism does not automatically produce richer participation. Whether interactivity becomes open-ended, shared, suspenseful, soothing, or constrained depends on how the mechanism positions the child, the adult, and the book in relation to one another.

5.2. Extending Rosenblatt and Iser to embodied early reading

The study also contributes to reader-response theory by showing how Rosenblatt's and Iser's concepts remain analytically productive when extended to very young readers. For toddlers, aesthetic reading is not primarily verbal or interpretive in the narrow sense. It unfolds through touch, hesitation, movement, anticipation, imitation, and affect. Toddlers live through books bodily.

Likewise, Iser's concept of gaps becomes especially illuminating when understood materially. In interactive books for toddlers, gaps are often lateralized in apertures, flaps, mouths, puppet openings, and mechanisms awaiting activation. These gaps are realized not primarily through reflective inference, but through bodily action. The child reader and the individual book form a dynamic relation in which meaning emerges through handling, timing, and repetition. Yet this relation is often not simply dyadic in isolation. Adult support and peer presence shape how the relation is realized.

This is particularly important because a Rosenblatt-inspired approach requires close attention to the specific relation between child reader, adult support, and the individual book. The analyses here demonstrate precisely that the book matters. *JAFS!* invites a different kind of child/book/adult relation than *Lille snakkebjørn* or *Lille sjiraff*. The literary event is therefore shaped not only by general notions of shared reading, but by the specific affordances and constraints of each work.

5.3. Adult mediation as aesthetic force

A further key finding concerns adult mediation. In all three cases, adults shape how the books are engaged with and received. They pace suspense, frame invitations, animate voices, grant or withhold access, and interpret the mechanism through their own bodily participation. Adult mediation is therefore not merely pedagogical scaffolding around reading; it is part of how the literary event is constituted.

This is most visible in *Lille snakkebjørn*, where adult control is structurally embedded in the book's mechanism. But adult mediation also matters in *JAFS!* and *Lille sjiraff*, albeit differently. Adults may heighten suspense, slow down pacing, support turn-taking, or allow children to discover the mechanism independently. Future studies of interactive books for toddlers would benefit from taking adult mediation seriously as part of the literary-aesthetic event rather than treating it solely as literacy support.

5.4. Contemporary board books within a longer interactive tradition

Finally, the study suggests that contemporary interactive board books should be understood within a longer material genealogy of movable and interactive books. Historical scholarship has shown how interactivity in books has long been used to organize reader participation. What

contemporary toddler books add is not the invention of interactivity itself, but its translation into durable, hybrid, mass-produced forms designed for sensorimotor use in everyday life. Felt teeth, finger puppets, plush faces, and tactile surfaces extend earlier traditions of flaps, volvelles, and paper mechanisms into new material configurations. This development invites renewed scholarly attention not only to how interactive books are engineered, but to how they are realized in contemporary reading practice.

6. Conclusion

Taken together, the analyses address the research questions by showing how different material mechanisms organise participation, distribute agency between children and adults, and shape the aesthetic conditions of toddler reading events. The present study has examined how interactive board books structure embodied aesthetic reading experiences for toddlers in everyday early childhood settings. Through close analysis of *JAFS!*, *Lille snakkebjørn*, and *Lille sjiraff*, the study has shown that interactivity is not a neutral enhancement but a decisive aesthetic principle that shapes participation, agency, and meaning-making in different ways.

The findings demonstrate that toddlers engage with interactive books primarily through bodily action, affective anticipation, repetition, and social coordination rather than through verbal interpretation alone. They also show that textual gaps in interactive books for toddlers are often material and performative, realized through mechanisms that invite bodily completion. In addition, adult mediation emerges as a constitutive part of the literary event, shaping whether interactivity becomes open-ended and shared or adult-controlled and constrained.

By foregrounding the specific relation between individual books, child readers, and adult support, the article contributes both to reader-response theory and to research on interactive books. It argues that contemporary board books for toddlers should be taken seriously not only as pedagogical tools or playful objects, but as literary and material artefacts that organize early aesthetic experience in distinct ways. The study therefore suggests that contemporary toddler books should be understood not merely as simplified children's literature but as a distinct branch of the broader tradition of interactive and movable books, where material design, embodied participation, and social reading practices are closely intertwined.

Taken together, the analyses show that interactive books for toddlers cannot be treated as a homogeneous category. Rather, different material mechanisms organize participation in distinct ways, distributing agency differently between children, adults, and the book as a material object. While some designs invite direct sensorimotor activation and peer imitation, others foreground adult performance or enable more collaborative forms of interaction. By foregrounding how specific book design's structure participation, the study demonstrates that interactivity functions not merely as an attractive feature of children's books but as an organizing aesthetic principle that shapes how reading events unfold. In this sense, the article contributes to reader-response theory by extending its insights to the embodied and materially mediated reading practices of very young children.

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