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Unlocking the Potential: Exploring the Emerging Subgenre of Interactive Baby Books

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Baby books that incorporate textures, movable components, or sound effects have increased in popularity in recent years. I refer to these books as “interactive baby books”. The purpose of this article is to define and characterise this emerging subgenre designed for babies, emphasising their role in supporting cognitive development in young children. To achieve this, my study will first explore the mechanisms used in these books to engage the reader, establishing a taxonomy of interactive baby books. It will then examine how these mechanisms can stimulate cognitive engagement, highlighting the interaction between the book and the reader as a means of generating knowledge. Finally, criteria will be proposed to describe the interactive potential of baby books, providing insight into the design of this book type.

Keywords: agency, baby books, cognitive development, interaction, multisensory engagement

Lift the flap to find a baby’s belly or press the button to hear the horse neighing. From lift-the-flaps, pop-ups, scratch-and-sniff, to touch-and-feel, there seems to be an endless choice of interactive books out there to engage inquisitive young readers. Indeed, interactive books designed for children aged from 0 to 3 tend to straddle a fuzzy boundary between book and toy. Equipped with movable or inserted components, these books transform, play music, squeak when poked, or are shaped like fluffy toys, providing the reader with a variety of sensory engagements: looking at the pictures, listening to the sounds, touching the textured surfaces, or chewing the plastic page corners. Baby-book publishing is issuing increasing numbers of baby books combining diverse materials or structures, shaped in multiple forms and thus distinguished as playthings (Kümmerling-Meibauer 2015).

However, despite the increasing production and innovative design, interactive books marketed to babies and toddlers rarely attract academic interest. They are mostly either marginally referred to in discussions on the materiality of picturebooks for children (Finkbeiner 2018; Kümmerling-Meibauer and Meibauer 2019; Veryeri Alaca 2018) or discussed under other labels like “movable books” or “pop-up books” from a historical-cultural perspective (Reid-Walsh 2012, 2019; Staples 2018) without explicitly focusing on the infant readership. Yet, as the aforementioned examples suggest, interactive baby books distinguish themselves from movable or pop-up books by drawing readers in through diverse structures that may extend beyond paper parts to include sensory stimuli or narrative elements, thus engaging the reader in different modes. Therefore, “interactive” can be seen as an umbrella term representing books that are “made of paper or other materials and allow children to perform certain actions and play with them” (Polyzou et al. 2022: 881).

The first academics to show serious interest in this book type described interactive baby books as “learning toys” (Apseloff 1987), suggesting that they connect “children’s playful use of books with their learning to read” (Herb and Willoughby-Herb 1985: 83). New scholarship has expanded this view by examining how playing with picturebooks supports young children’s literacy development. For instance, Lian Beveridge observes that “what we call ‘reading with a baby’ means touching textures, lifting flaps, singing, talking, tackling, and other physical interactions” (2017). She proposes that a baby’s engagement with “the physical nature of the book” should be acknowledged as a form of reading (21). Miller and Tippin (2023) and Reid-Walsh and Rouse (2023) delve deeper into the role of touch in baby books, emphasising the role of sensory perception in a progressive maturation from taste to touch to language.

While baby books that encourage interaction have mostly been analysed from a poetics or design perspective (Miller and Tippin 2023; Reid-Walsh and Rouse 2023; Senís and Pena Presas 2023; Timpany et al. 2014), Bettina Kümmerling-Meibauer and Jörg Meibauer explore picturebooks as material objects. They point out that activities associated with picturebooks, such as building, feeling, or biting, are closely tied to the physical aspects of the book as well as to children’s developmental stages (2019). Cornelia Rémi (2011) examines the wimmelbook for babies from a cognitive perspective, suggesting that these books, with their complex, busy scenes, encourage young readers to observe, recognise patterns, and make connections, all of which are foundational skills for later reading and cognitive development. Built on these perspectives, this essay takes a cognitive approach to interactive baby books,¹ aiming to address the following questions: How do we understand playing with or manipulating a baby book as a form of interaction? Could children’s interaction with a book offer new insights into their cognitive development? This essay seeks to define and characterise interactive baby books as an emergent subgenre, with a focus on their role in supporting

¹ For insights into the cognitive challenges posed by picturebooks concerning language and literature acquisition, see Kümmerling-Meibauer and Meibauer (2013, 2018).

young children's cognitive development.² To achieve this, my study will first explore the mechanisms integrated into these books to engage the reader, thereby establishing a taxonomy of interactive baby books. It will then examine how interactive books can cognitively engage their readership and illustrate how knowledge is transmitted through the interplay between the book and the reader. Finally, criteria are proposed to describe the interactive potential of baby books, offering insight into the design of this book type.

Defining interactive baby books

Interactive baby books form a particular and recognisable subgenre, as they incorporate various materials and sensory stimuli that work alongside words and images “as a third narrative system” (Veryeri Alaca 2019: 244). Manipulative components like pop-ups, sound buttons, or textured surfaces go beyond the usual static pages and thus allow the book to move, trigger transformation, or offer a sensory experience – all intended to actively engage the reader in constructing meaning. The reader becomes an active participant, exploring the book's tactile features, manipulating the movable components, and eliciting sound effects. This hands-on approach not only captures the reader's attention but also promotes an immersive and dynamic reading experience. Through their manipulative and sensory features, interactive baby books encourage readers to wonder and reflect, offering them a “latent promise” (Papazian 2022: 243). Hence, interactive baby books are characterised by their ability to encourage the reader to engage with the book and its content in a playful manner.

The label of interactive applies to both fictional and nonfictional works and includes a wide range of baby books that stimulate an interactive reading process, such as books with tabs and flaps, scratch and sniff books, touch and feel books, finger puppet books, and picturebooks with sound effects. But the central feature of these books is that the reader needs to manipulate their embedded mechanisms to engage with them. These mechanisms can range from simple peep holes to complex pop-up structures, varying from book to book. Based on the dominant mechanism in the book, interactive baby books can be differentiated into three types: the paper-based type, the multimedia-based type, and the narrative-based type.

The paper-based baby book mechanism involves moving tabs, flaps, sliders, pop-ups or peep holes that can be made with the support of paper engineering. These elements are typically scene changing. They are designed to be moved or manipulated to make changes or trigger transformations, thus making the reading process lively and playful. Typical examples are the push-pull books that have moving tabs. These tabs are designed to change the illustration on pages by moving them. The movable elements generally excite the readership, allowing them to actively participate in the unfolding story. By manipulating the tabs and navigating through scene changes, readers execute the shifts within a storyline and bring the plot to its fruition. This is evident in Benji

² In this discussion, “interactive books” specifically refer to physical books. Digital and AR books requiring mobile devices for operation are not within the scope of this study. For research on interactive paper books and AR books for preschool children, see Polyzou et al. (2022).

Davies' *Bizzy Bear: Racing Driver* (2018), one of his Bizzy Bear series: each page represents a scene, a rhyming text and a movable component like a tab or a slider. By pushing, pulling, and sliding the tabs, the reader can move the story onto the next scene, bringing the text to life. For example, they can turn the light on to signal the start, help Bizzy Bear speed along in his racing car, and lift the flag as he crosses the finish line. In this way, the reader becomes a participant, accompanying Bizzy Bear on his race, and shaping the course of the story with their own hands.

In comparison, the multimedia-based type of book includes more sensory activities. Equipped with sounds, tones, scents, flashing lights, cloth, or fabrics, these books provide the reader with the possibility of (multi)sensory involvement. They encourage the reader to use their senses as they learn about the world, thus inviting them to actively participate in the reading experience. So-called quiet books, scratch and sniff books, touch-and-feel books, and touch-and-sound books are typical of this type of interactive baby book. Multimodal components embedded in interactive baby books often communicate narrative information as they mostly represent certain features of objects or living things. They can, for instance, stimulate real-life sounds, present textured surfaces to touch-and-feel, or offer stickers to scratch and sniff. In these ways, they encourage the reader to engage with the book not only by seeing, but also by touching, feeling, or smelling. By playing with the multimodal elements, readers will involve themselves in the construction of the narrative with all the senses and will get a direct impression of the world they live in. Thus, it is plausible that books that introduce different textures or sounds to the child are identified as "sensory books".

Additionally, narrative-based interactive books usually feature imperative or instructive narratives which clearly indicate activities the reader should engage in to fully participate in the process of meaning-making. These books express explicitly the request for interaction, and, in turn, the reader may read them by following instructions. In Patricia Hegarty's touch-and-feel sound book *Noisy Baby Animals* (2016), instructions like "Pat the puppy's side to hear him Woof!" or "Rub the cub's fur to hear him Roar!" tell the reader how to play with the book. By employing text written in the imperative, an immediate narrative voice is established, wherein the choice of action seems to belong entirely to the reader. As stated by Margaret R. Higonnet (1987: 42), this narrative technique creates a sense of agency, allowing readers to feel as if they are actively influencing the development of the story. This engaging method further enhances the reader's engagement, making the reading experience more interactive and immersive.

This type of book also integrates the materiality of the book into the narrative, thus encouraging readers to engage with the book in its physical dimension. In this case, the page and the page layouts of the book, including the opening, the gutter, and the page breaks, are intentionally designed to play a role in the plot.³ For example, in

³ Eva Gressnich (2012) identified different types and functions of page breaks in picturebooks. She argued that the page is an element that influences a picturebook's dramaturgy, as well as the reading process.

Patrick George's *Animal Rescue* (2015), the reader determines where an animal belongs, to human society or nature, by turning the transparent page. By engaging with the book, or rather the page itself, the reader becomes an active figure who to some extent decides how the narrative will proceed. In practice, this strategy tends to be employed in picturebooks for toddlers or older children.

Creating a typology for interactive baby books highlights that interaction is achieved in multiple ways. Motion or transformation guaranteed by inserted paper mechanisms in the book, sensory stimuli, and instructive narratives all encourage readers to interact with the book. Mixed forms are not uncommon, as seen in Dorothy Kunhardt's well-known book *Pat the Bunny* (1940). This book contains both instructive narratives like "Now YOU pat the bunny" and inserted parts for sensory engagement, such as a daddy's scratchy beard to feel. There are also variants that cannot be integrated into the suggested typology. For example, handcraft books designed to have pages torn or glued are obviously interactive books, but they do not fit into the category delineated here. Nevertheless, the typology proposed in this study aims not to comprehensively cover the variants of interactive baby books in all forms, but rather to sort these books into smaller categories, facilitating further exploration of their role in fostering cognitive development in young children.

Understanding the baby's interaction with books

While the proposed typology enables us to describe the structural diversity of interactive baby books, a cognitive approach directs our focus towards how embedded mechanisms in these books stimulate cognitive engagement. The interactive baby book provides a unique field of study for examining how books endeavour to shape the cognitive development of young children. It is important to note that the interaction with these books is not primarily language-based, but rather emphasises the interplay between the baby and the book itself, whether it be the physical object or the content within it, as a means of generating knowledge. Although the interaction often serves the purpose of play rather than specific goals (Reid-Walsh and Rouse 2023: 356), it is inherently linked to a complex process that presupposes cognitive abilities. Therefore, to gain a comprehensive understanding of interactive baby books, it is essential to understand the way babies interact with these books.

Claire Timpany and Nicholas Vanderschantz (2012) investigated how a book demands different types of interaction from the reader and developed a dual categorisation continuum for the interactivity of a printed book: physical and intellectual. The physical aspect describes children's engagement with the physical features of a book, such as turning pages or manipulating movable tabs. The intellectual aspect, on the other hand, refers to the content sequencing within a book, including nonlinear reading experiences, puzzle-solving, or related activities to be carried out after reading. However, it should be noted that cognitive engagement serves as the foundation for both physical and intellectual interaction. The essence of interaction lies in its ability to

“enrich the reading experience and create intimacy between the books and the child” as well as to “promote embodied learning” (Gaye Dinç and Veryeri Alaca 2021: 242). It is important to recognise that the essence of interaction extends beyond mere physical engagement to encompass cognitive connections between the reader and the book.

The term “interaction” encompasses a wide range of variables, covering both concrete and abstract actions. These include functionally unintended activities like piling up and building, and functionally intended activities like smelling and listening, as identified by Kümmerling-Meibauer and Meibauer (2019). According to the proposed typology of interactive baby books, three modes of interaction between the book and the reader can be identified: physical, sensory, and mental interaction.

The physical interaction involves the reader manipulating the physical features of the book, resulting in movement or changes within its pages. These physical features often consist of movable components in the paper-bound codex, which can alter or transform images when manipulated. This kind of interaction not only requires visual attention and hand-eye coordination, but is also closely connected to a young child’s understanding of contingency. Contingency refers to the recognition and expectation of how one’s actions relate to the consequences in the environment (Lohaus and Vierhaus 2019: 135). During infancy, developing an understanding of contingency is crucial for cognitive development as it allows babies to learn about their relationship with the world. In the early stages, babies begin to explore cause-and-effect relationships through simple actions, such as shaking a rattle and hearing the resulting sound. Through repetition, they start to comprehend that their actions lead to specific outcomes. This understanding of contingency helps develop their sense of agency and control over their environment. As babies grow and their cognitive abilities progress, they become better at recognising contingencies in their surroundings and predicting outcomes based on their actions. For example, they learn that pressing a button on a toy will play music.

The physical interaction between a book and a baby can support their learning of contingency. As the book reacts to the baby’s pulling, pushing or turning by revealing new images or structures, it demonstrates that the changes are contingent upon their own actions. Through repeated experiences, the baby may develop an awareness that they can cause and control interesting effects in their environment. This learning process may be enhanced through joint reading with an adult mediator. For example, by playing with Benji Davies’ *Bizzy Bear: Playtime Park* (2011), the baby can use their finger to control the seesaw, witnessing its movement correspond to their finger’s actions. This awareness can be strengthened if the adult mediator reads the accompanying text “Bizzy Bear, Bizzy Bear, up and down!”, and aligns the words ‘up’ or ‘down’ with the seesaw movement, encouraging the baby to associate the words with their finger movements.

In addition, the sensory interaction describes how readers engage with books using their senses, including hearing, touch, smell, taste, and sight. This is particularly evident in multimedia-based books that communicate information through sensory stimuli, providing infants and toddlers with a platform to gather and process sensory information. Sensory interaction is closely tied to a baby’s perception. Research has

indicated that the ability for intermodal perception is present from birth, but it develops further with increasing experience (Lohaus and Vierhaus 2019: 118). Infants as young as a few months old use information from different sensory systems such as smells, sounds, or surface properties, to differentiate living things from objects (137).

During sensory interaction with books, babies are encouraged to distinguish the characteristic features of different materials, learn about the shapes of objects, identify voices, tones, sounds, and discover natural scents. These experiences contribute to their understanding of their surroundings. Moreover, multisensory experiences enable babies to make connections between information, thereby enhancing their intermodal perception. For example, the aforementioned touch-and-feel sound book *Noisy Baby Animals* actively engages babies' sense of touch and hearing, facilitating a deeper understanding of how animals feel and differ from one another. By touching the fuzzy patches on the dog and the tiger, babies gain a direct impression of how animals' fur feels, which is different from their own skin. With the guidance of an adult mediator explaining that the fur feels soft, babies can establish a connection between the tactile sensation and the concept of "softness" in the real world. Meanwhile, the different sounds of the dog and the tiger allow the reader to distinguish between the two animals, illustrating that multiple senses can be employed to gather information.

Mental interaction occurs when readers engage with characters and plots in books. This interaction is termed "mental" because it primarily involves an understanding of the inner world of people, including their intentions, thoughts, feelings and emotions. These elements drive a character's action, ultimately shaping the progression of the story's plot. Engaging with books mentally can support infants and toddlers in gaining intuitive psychological and emotional knowledge. Infants from the age of about eight to nine months express expectations of social interaction, whereas knowledge about feelings or emotions is used to help themselves judge the social situation (Lohaus and Vierhaus 2019: 138-139). The ability to understand how consciousness functions and how it influences behaviour is known as Theory of Mind (ToM). It allows us to comprehend the mental states of others and guides our interaction with them, thus ensuring an unproblematic social life. This ability is not innate but must be acquired in a long-term process that starts in early childhood (Hastings, Zahn-Waxler and McShane 2006).

Mental interaction with books can serve as a training ground for ToM by inviting the reader to attribute mental states to the characters. In Eric Hill's lift-the-flap book *Where's Spot?* (1980), for example, the reader becomes actively engaged in the story as they accompany the mother dog in her search for her baby dog, Spot. To successfully navigate the story and assist the mother dog in finding her baby, the reader must understand the underlying motivation: the mother's desire to call Spot for dinner. This reading process involves processing and remembering the specific task at hand. Throughout the book, the reader is actively involved in the search, lifting flaps and exploring various locations in the quest to locate the hidden baby dog. The accompanying text, such as "Is he

behind the door?"; functions as guidance, encouraging the reader to lift the flaps. The cognitive engagement intensifies as the reader predicts potential hiding spots and eliminates places already searched. To fully comprehend the narrative, the reader needs to understand that the mother dog knows that Spot did not hide behind the door, leading her to move and look into the clock. This relates to a more complex form of mind-reading known as second-order belief (X knows that Y knows). Thus, the reader uses their understanding of the character's motivations and beliefs to advance the plot and ultimately achieve the satisfying resolution of reuniting the mother dog with her baby. In this way, *Where's Spot?* showcases how readers, even at a young age, can be cognitively engaged while exploring an interactive book.

Describing the Interactive Design

As stated above, the classification of a baby's interaction with books into three modes – physical, sensory, and mental – sheds light on how babies engage with books and how these interactions support their cognitive development. The preceding section aimed to ascertain the properties or affordances of an interactive baby book for a baby interactor. To further explore the interactive potential of such books, analysis criteria will be proposed.

Bert Bongers and Gerrit C. van der Veer discuss how an interaction “can be described in several layers, taking the user from a goal and intention, formulating a task and subtasks, carrying out these actions whilst receiving feedback on the physical level, and evaluating the result” (2007: 610). Their exploration underscores the significance of considering various elements within the interaction process, from the initial goal-setting phase to task execution, and to the final assessment of results. Drawing on their insights, coherence, modality, and agency will be proposed as criteria to describe and analyse how a book can engage and involve babies in meaningful ways, enhancing their interactive experience.

The term coherence examines whether all parts of the book are well connected and logically united, and whether they are easy for the child reader to follow. It presupposes a “proposal” or “intention” that initiates the interaction. A coherent interaction ensures that the interactive parts in a book make sense of that proposal or intention, leading to a pleasurable communication between the reader and the book. Helping infants and toddlers understand what their actions will lead to satisfies their curiosity, develops their sense of agency, and prompts them to explore further. Therefore, evaluating coherence allows us to determine whether the interaction is purposeful and effective in achieving its intended outcomes. In the interactive board book *Where Is Baby's Belly Button?* (2000) by Karen Katz, the interactive experience revolves around lifting felt flaps to uncover various body parts of the baby in the book. The coherence of the interactive elements lies in the simple and repetitive actions required of the reader (or caregiver) to unveil the hidden body parts. Each lift of a flap reveals a different body part, accompanied by the question “Where is baby's [body part]?” followed by the

discovery with a joyful illustration. The logical unity in this interactive book ensures that the sequence of actions (lifting flaps) leads to a predictable and consistent outcome (revealing body parts), providing a sense of discovery and engagement for the baby.

Modality serves as another crucial criterion for evaluating the structure and diversity of interactive elements within a book. It encompasses the mechanisms through which the interaction occurs and corresponds to the process of formulating tasks and subtasks. By analysing the modality employed in a book's interactive design, we can determine whether the design offers a homogenous or heterogeneous sensory experience, and whether it provides intermodal engagement by integrating multiple sensory channels. Homogeneous modality refers to a consistent use of a single sensory channel in the interactive elements of a book. For example, a cloth book that focuses solely on touch-based interactions through textured surfaces would exhibit a homogeneous modality in its design. Such a consistent sensory approach can create a cohesive interactive experience. On the other hand, heterogeneous modality involves the incorporation of multiple sensory channels, such as touch, sight, sound, or smell, in the interactive components of a book. This diverse use of sensory modalities can enrich the interactive engagement and stimulate multisensory processing in the reader. In comparison to a cloth book, *Noisy Baby Animals* goes beyond tactile exploration by providing auditory feedback in the form of sound effects associated with different baby animals. When readers touch the fuzzy patches on the baby animals, they trigger realistic animal sounds like a dog's bark or a cub's roar. This auditory feedback adds another layer of sensory stimulation to touch, allowing babies to associate visual images with tactile sensations and sound cues, thus encouraging intermodal learning.

Finally, agency refers to the reader's level of interaction with a book, delineating the result of the interaction. The concept of agency encompasses the reader's autonomous actions in an interaction. These actions are independent, chosen from a range of possible choices, and (appear to) determine the course of the story, providing an "aesthetic pleasure" (Murray 2016: 125). When reading an interactive book, the reader embodies agency in different degrees, progressing from a passive viewer to an active participant, and even a creative co-author of the story. The varying degrees of interaction relate to different forms of learning. Passive viewing allows for the observational learning of objects and events, while active engagement facilitates learning through interactions with the surrounding world. This form of learning has been supported by experiments, demonstrating that active involvement enhances the learning process (Siegler et al. 2021: 216). Holding the peep-through book *Are You There, Little Tiger?* (2017), written by Sam Taplin and illustrated by Essi Kimiaki, the child reader takes on the role of an inquisitive "explorer" (Goga 2021: 184) who looks through to the next page. New animals are discovered through the reader's engagement but this is not governed by the reader's actions. In fact, the exploration is predetermined by the author, and the reader has no control over the initial or subsequent showing of the animal. A more active engagement can be provided by a Montessori quiet book for toddlers. This book offers

the reader an interactive experience by introducing everyday objects and allowing them to physically handle these objects. Regarding the page featuring a shoe, for instance, the child reader not only observes the appearance of the shoe but also can actively learn and practice the skill of tying shoelaces. By physically engaging in the process of tying the laces, the child not only sees how it is done but gains practical experience and skill development. This direct involvement allows for a deeper understanding and mastery of the task, highlighting the power of learning by doing.

Outlining key aspects of interactive properties like coherence, modality, and agency showcase the value of interactive elements in fostering meaningful interactions between the book and the baby. The proposed criteria are not prescriptive guidelines intended to instruct other baby books on how to engage readers in a similar manner. Instead, these criteria serve as a framework for understanding and evaluating how interactive elements can enrich the reading experience for children, encouraging curiosity, creativity, and (multi)sensory engagement.

Concluding remarks

As print technologies advance and new approaches to children's literature emerge, categorising a specific subgenre like what has been termed "interactive baby books" presents inherent challenges. Nevertheless, the presence of interactive mechanisms and engaging features in baby books provides a strong basis for categorising them as a distinct subgenre which embodies the relationship between reading and play. Through various kinds of movement, transformation, effects, and instructions, interactive baby books involve infants and toddlers in a multisensory way, combine reading with playful engagement, and actualise the ways that reading itself is, in effect, active and interactive.

From a cognitive perspective, these books not only engage young readers in sensory exploration but also play a pivotal role in shaping early cognitive development. They embody early childhood knowledge and introduce the child reader to basic forms of learning and thinking, and thus can rightly be considered a distinctive contribution to children's literature. In terms of the interface between a book and a reader, interactive baby books also offer an opportunity to explore the boundaries and possibilities of books, creating a dynamic platform for interdisciplinary studies that merge design principles with cognitive studies.

What could be explored in further research is the role of an adult mediator in the interaction between the baby and the book. As discussed above, it seems that the interaction can be enhanced or fully realised (only) through an adult mediator. While the baby may be surprised by the transformation or effect, the adult mediator can function as a bridge between the baby and the book by providing descriptions and explanations, and thus assisting the baby in making connections. This relates not only to the development of language, a topic often discussed in children's literature research, but also to the generation of knowledge that can provide valuable insights into collaborative reading experiences.

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Otključavanje potencijala: istraživanje novonastajuće podvrste interaktivnih knjiga za novorođenčad

Knjige za novorođenčad koje uključuju teksture, pokretne dijelove ili zvučne efekte doživjele su uočljiv porast popularnosti posljednjih godina. Te knjige nazivam „interaktivnim knjigama za novorođenčad“. Svrha je ovoga rada definirati i opisati tu podvrstu u nastajanju koja je namijenjena novorođenčadi, pritom naglašavajući njihovu ulogu u podržavanju kognitivnoga razvoja male djece. Kako bi se to postiglo, u radu se prvo istražuju mehanizmi kojima se autori koriste kako bi se angažiralo čitatelja, uspostavljajući taksonomiju interaktivnih knjiga za novorođenčad. Zatim se ispituje kako ti mehanizmi mogu potaknuti kognitivni angažman, ističući interakciju između knjige i čitatelja kao sredstva za stvaranje znanja. Konačno, predlažu se kriteriji za opisivanje interaktivnoga potencijala knjiga za novorođenčad, pri čemu se pruža uvid u njihov dizajn.

Ključne riječi: aktivno djelovanje, knjige za novorođenčad, kognitivni razvoj, interakcija, višesenzorni angažman