

Mapping the Impact of Picture Books in Reading Comprehension

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Abstract

The study explores how picture books influence reading comprehension among emergent learners. It reflects how visual narratives along with textual elements contribute to literacy development, engagement, and critical thinking. Drawing from schema theory (barlett,1932) and reader response theory (rosenblatt,1978) the research explores how illustrations integrated with textual narratives enhance engagement, meaning-making and critical thinking. Implementing a mixed-methods design- including classroom observations and structured interviews with teachers- the study assesses the pedagogical effectiveness of picture books across subjects. Findings suggest that effective use of picture books enhance literacy by supporting prediction, sequencing, visualisation, and contextual interpretation. the study advocates for the integration of picture books as inclusive, multimodal learning resources that support diverse learning styles and foster lifelong love for reading.

Keywords: schema, visual literacy, contextual understanding, visualisation, practical engagement.

Introduction

Pictures in children's books play an important role in enhancing the reading experience and aiding in comprehension. These provide visual representations of the text, helping children visualise the story, characters, and settings. This visual support is especially beneficial for young or struggling readers who may have limited vocabulary or reading skills. By providing visual cues, illustrations help children connect the text to their existing knowledge, making the story more accessible and easier to understand. Moreover, picture books can evoke emotions and stimulate thoughts. Colourful and engaging illustrations can capture a child's attention and elicit feelings of joy, curiosity, or empathy. These emotional responses can elevate the overall reading experience and deepen children's engagement with the text. Pictures also play a significant role in stimulating children's imagination. The visual cues provided allow children to visualise the story's events, characters, and settings, thus enhancing their ability to create mental images and develop a deeper understanding of the narrative. Each and every child has an interest in reading as per their interests. If children look at the colourful pictures or written text or any print material it attracts them and they try to read it and make meaning out of it. Children feel overwhelmed when they read and comprehend the meaning of the text with the help of pictures. According to the educational philosophy of Rousseau (1989), a child is not a blank slate "*tabula rasa*" but comes equipped with prior knowledge and experiences. Each child has some sort of schemas and previous knowledge in their minds. When children look at a colourful text or picture it attracts them and they try to read it. Even though a child has never been to school she/he tries to read through prediction. When children interpret pictures in picture books, they rely on their schemas, which are mental frameworks or organised patterns of thought, to make sense of the images. Schema theory (Bartlett, 1932) suggests that readers use their prior knowledge and experiences to make sense of new information. In the context of children's books, pictures play a crucial role in activating and building upon these existing schemas, thereby enhancing comprehension. For example: if there's a picture of a mango and "it is a ripe mango" written beside it the child will look at the picture and try to make connections with the text. She/he will think/assume that the written text is something related to mango. She/he can also try to read the text in their own language because of their existing knowledge. Additionally, children actively construct meaning from the pictures in picture books by integrating new information into their existing schemas. For example, if a child has a schema for vehicles that includes cars, trucks, and

bicycles, they may incorporate a new type of vehicle, like a skateboard, into their schema after encountering it in a picture book.

Rationale of the study

Engaging children with picture books with the purpose to enhance their linguistic expressions is considered to be a fruitful activity. Apart from enabling the children to experience the varied linguistic aspects, such activities also facilitate them in exploring their visual experiences. It also helps them in taking the story forward through prediction, imagination and relating it to real life experience. This is almost similar to how we tend to associate our daily experiences with any book, picture or film and try to give them a new meaning (NCF 2005). This study is conducted to explore the potential of illustrations in enhancing the reading experience for children. It aims to examine how illustrations, impact, reading comprehension, emotional engagement, and imagination, thereby contribute to development of more inclusive and effective educational materials. The study investigates how illustrations help children construct meaning from texts and supports the idea that reading is not just about decoding symbols, but about interpreting them based on prior knowledge and experiences.

The research is grounded in reader response theory or transactional theory (Rosenblatt,1978), which explains the meaning is not inherent in the text itself, but emerges from the interaction between reader and text. Readers bring their own background, emotions, and experiences into the reading process, shaping their understanding of the content. This dynamic exchange between the reader and the text highlights the importance of illustrations and guiding and enriching the reading experiences.

Additionally, the study explores how illustrations can serve as a communication bridge, particularly for individuals with disabilities by analysing how individuals like Sonia interact with Visual stimuli, the study seeks to develop tailored instructional strategies that supports diverse learning needs. This research is crucial for designing, teaching methods and materials that promote literacy, engagement and accessibility, ensuring that all children regardless of their learning abilities can benefit from an enriched reading experience.

Understanding literature

The role of picture books in literacy development

- Literacy and cognitive development: picture books play a pivotal role in early childhood literacy by fostering language skills, stimulating imagination, and encouraging critical thinking. They assist as a tool for young children to understand narrative structure, expand vocabulary, and develop comprehension abilities (Joshi, 2025; Jalongo, 2025). Educators play a significant role in leveraging these books to enhance literacy through read-alouds, shared reading experiences, and interactive discussions.
- Mental and emotional engagement: picture books offer a rich medium for emotional intelligence, as children engage with characters' emotions and learn to interpret different feelings (Porter, 1968; Jalongo, 2025). These books allow children to develop empathy and understand complex social and emotional dynamics, making reading a holistic developmental activity.

The importance of illustrations

- Visual impact on understanding: pictures in picture books are not merely for the purpose of decoration but central to the reading experience. They aid children in decoding the text, fostering a deeper connection with the story. Illustrations provide visual context that helps young readers make sense of abstract concepts, emotions, and themes (Al_Hinaai, 2021; Porter, 1968).
- Cultural representation and identity: in specific cultural contexts, such as Oman, illustrations are vital in preserving heritage and teaching children about local culture, traditions, and history (Al_Hinaai, 2021). The use of culturally relevant images fosters a sense of identity and belonging in young readers.
- Design and interaction with text: the harmony between text and illustrations is key in shaping the reader's experience. Elements like color, layout, and the placement of text contribute to how children interpret stories and engage emotionally (Clpe,

2025). The design of a picture book influences its accessibility and appeal, making it an integral part of the reading process.

Themes and subject matter

- **Diverse and complex themes:** children's books should address a wide range of themes, from simple everyday experiences to complex issues like diversity, empathy, and respect (Joshi, 2025). Joshi emphasizes that children's literature should reflect realistic portrayals of children and address themes relevant to their lives, while Jalongo discusses how engaging with diverse themes in books supports emotional and intellectual development.
- **Developmental relevance:** the subjects explored in picture books should be age-appropriate and cater to the developmental stages of the child. Joshi highlights that books aimed at very young readers should incorporate simple but meaningful themes, while books for older children can delve into more complex topics (Joshi, 2025).

Children's engagement and preferences

- **Emotional and cognitive responses:** research indicates that children are more engaged with books that feature vibrant, colorful illustrations and relatable themes (Al_Hinaai, 2025; Jalongo, 2025). Children's emotional responses to illustrations vary, with bright and cheerful images evoking positive emotions, while dark or overly complex illustrations may cause confusion or fear. These reactions highlight the importance of thoughtful illustration design to create a positive reading experience.
- **Interactive and active learning:** picture books encourage children to interact with the text and illustrations, actively interpreting meaning, generating ideas, and even creating their own narratives (Porter, 1968; Clpe, 2025). This process fosters a deeper engagement with the text and promotes independent thinking.

Pedagogical strategies for using picture books

- Integration into curriculum: picture books should be integrated into early childhood curricula to support various learning goals, including literacy, social skills, and emotional growth. Strategies such as interactive storytelling, guided discussions, and the inclusion of picture books in subject-specific lessons help children link stories with real-world concepts (Jalongo, 2025; Clpe, 2025).
- Barriers to access and awareness: despite their importance, access to high-quality picture books may be limited in certain contexts due to economic factors, language barriers, and a lack of awareness among educators and parents about their educational value (Jalongo, 2025; Al_Hinaai, 2025). Increasing awareness about the benefits of picture books and improving their availability can help overcome these barriers.

Across all the reviews, it is evident that these books play a vital role in shaping early childhood literacy and development. They not only contribute to cognitive and language development but also support emotional growth and cultural awareness. The interaction between illustrations and text, the design of the books, and their ability to address relevant and diverse themes are all key to creating an engaging reading experience. Educators and parents are encouraged to thoughtfully incorporate picture books into early learning environments to promote a love of reading and facilitate children's overall development.

Objectives

- To explore primary teachers' perspectives on pedagogical use of picture books using qualitative interviews.
- To assess the impact of illustrations on students' reading comprehension through classroom observations and book analysis. .

Design of the study

The study utilises mixed method approaches as a continuum rather than considering them mutually exclusive dichotomy. The study aims to explore the influence of illustrations

and picture book on children's understanding across subject areas. The research methodology is divided into two distinct phases: observation and one to one interaction. The study of a qualitative (field observation and interviews) as well as quantitative (rating the appropriateness of books as pedagogical tool) approach at a minor level to understand the perspectives, behaviours and experiences of students and teachers in a natural classroom setting. By focusing on descriptions and patterns during the study, different ways were tried to unfold in which picture books enhance comprehension and engagement. This study explores the use of picture books and illustrations in teaching through two phases: phase 1 involves classroom observation of students' engagement and comprehension with visual aids. Phase 2 includes structured interviews with teachers to gather their perceptions on the effectiveness and challenges of using picture books in education. A purposive sampling method was employed to select sample of 4 teachers (aged 25 and above) and approximately 32-35 students from a primary government school in Delhi. The selection was based upon accessibility of classrooms where picture books interventions could be implemented meaningfully during regular teaching.

Thematic analysis on the basis of interventions

Influence of pictures on children's interest

Pictures are visually stimulating and capture children's attention. Young children are naturally drawn to bright colours and high contrasts, which can generate their curiosity and motivate them to explore the book further. Colourful illustrations can also help in distinguishing between characters, objects, and settings, making the story more engaging and easier to follow. Whenever I used to distribute story books in the classroom, most of the children were asking to take story books which consisted of many pictures.

Colour pictures or any printed material attract them and they try to read. The children feel immense happiness and joy when they can comprehend the meaning of text with the help of pictures. Each and every child has an urge to read. Even though the child has never been to school, he/she tries to read through prediction. Children can read even without a full knowledge of letters. They capture images of letters and words in their mind, which helps them read (NCF, 2005)

One of the important roles of illustrations in children's books is to attract children's attention for reading the text. The nice shape in a picture can easily arouse

children's interest in a book (Marshall, 1988). Another importance is that pictures increase the enjoyment of the text (Segun, 1988). In other words, children enjoy the text more if they see pictures and they connect them with the words in the text. Other writers also agree on the great importance of pictures in books; (Susan Hall, 1990) believes that the main role of pictures is to enhance the book. She says that words tell the story and pictures make the book more interesting. Furthermore, pictures can strengthen the relation between the child and the book (Segun, 1988). Says that comic and humorous illustrations can increase the child's love of books. Illustrations that include the picture of some lovely characters, he says, will lead the child to love the book which has that nice character (Al Hinaai, 2021).

The teachers' responses to the question “what kind of books do children prefer in your class?” Provided a view of children's preferences for books with pictures and their implications for language learning and cognitive development.

Apparently, all the teachers highlighted that child in their class, particularly prefer books with more pictures. One of them mentioned that children are drawn to texts that provide not only information but also values related to their personal selves. Whereas the other one exclaimed “most of the children like which books only whenever we visit the library, the main focus of children is to look at the pictures and select which they think have the best pictures. They are not concerned if they can read that text or not, but pictures are the driving force to choose the book” this preference for books with more pictures can be related to the cognitive theory of learning, specifically the idea of schema theory. According to schema theory, individuals organise knowledge into mental structures called schemas. In the context of reading, pictures can serve as visual cues that help children build and connect their schemas, enhancing their understanding and retention of the text. Pictures can also stimulate imagination and creativity, which are important aspects of language development. Children relate quickly to pictures and often rely on them to understand text. This observation is consistent with the concept of visual literacy, which suggests that pictures can serve as a bridge to understanding written text, especially for emergent readers. Visual literacy is an important skill that helps children interpret and create visual images, enhancing their overall comprehension and communication skills. One of them commented that children in her class prefer “books with large and vibrant pictures.”. This tells that individuals have different strengths and preferences when it comes to learning. Maybe in a class for some children, visual

intelligence may be more dominant, making them more responsive to visual stimuli such as pictures.

Like there are people who are brilliant at reading books, there are also people who are good at reading pictures. The reader of pictures has to be a good observer and excellent at analysing the elements of pictures. In addition, there are many points which shall be taken into consideration when analysing pictures (Hixson,2003). According to him the first thing that has to be kept in mind when analysing pictures is to know what the picture is about. In other words, what is the main message that the picture carries?

Second, the picture can be interpreted differently according to the audience. This is what reader response theory (Louis Rosenblatt,1978) is about. For instance, to analyse illustrations in children's books, we have to see things from children's point of view because they are the target audience. The third important point in analysing pictures is considering time and place. We have to consider both the moment and sitting of the picture. For instance, we can predict the time of the event that the picture represents from the way people dress in the picture. There are specific features of illustrations that attract children's interest: for example, the kind of colour, size, and the level of the realism in a picture with the page's layout play a magnificent role in pictures (Hixson, 2003).

When asked whether “pictures related to text influence his children’s interest in reading or not”, all the teachers agreed that pictures are related with the text influence and children’s interest in reading. Teacher 1 suggested “i think even if the text is boring and it contains pictures can add some spark into a child's mind, they are more engaged within the pictures and form their own perception about that.” This aligns with schema theory (Barlett,1932), which suggests that individuals organise knowledge into mental structures called schemas. Pictures can serve as visual cues that help children build and connect their schemas, enhancing their understanding and retention of the text. Additionally, the idea that children are more engaged within the pictures and form their own perceptions relates to transactional theory (Louis Rosenblatt,1978) which emphasizes the role of the reader in interpreting and making meaning from the text. Pictures can stimulate imagination and creativity, allowing children to engage with the text in a more personal and meaningful way. Pictures can also serve as cultural tools that help children make sense of the text within their own cultural and linguistic context, enhancing their understanding and engagement with the text.

Using picture books in early childhood education offers numerous benefits, particularly from an emergent literacy perspective. These books, rich in illustrations and minimal text, play an important role in fostering literacy skills among young learners. Firstly, picture books serve as a gateway to literacy by captivating children's attention and stimulating their imagination. The colourful and engaging illustrations provide visual cues that help children comprehend the story, even before they can read the text. This visual support aids in developing narrative skills, as children begin to understand the sequence of events and the structure of a story.

Secondly, picture books promote language development by exposing children to new vocabulary and language patterns. As children listen to the story and engage in discussions about the pictures, they are introduced to new words and concepts. This exposure to rich language enhances their vocabulary and comprehension skills, laying a strong foundation for reading and writing. Additionally, the interactive nature of picture books encourages children to ask questions, make predictions, and express their thoughts, thus improving their oral language skills. These books also play a significant role in promoting social and emotional development. Many picture books address themes such as friendship, empathy, and diversity, helping children understand and navigate their emotions. Through open-ended questions and discussions, children are encouraged to think beyond the text and make connections to their own experiences. This process of making meaning from the text enhances their comprehension skills and encourages them to think critically.

In conclusion, the responses from the teachers highlight the positive impact of using pictures related to the text on children's interest in reading. By incorporating rich picture books into their teaching practices, teachers can enhance children's interest in reading, ultimately fostering a love for reading and learning.

- **Using picture books as a pedagogical resource to enhance comprehension**

Most teachers consider textbooks as the only medium to help the child learn reading. Teachers who teach language generally do not go beyond the textbooks when they organize the teaching learning process for reading. Most of the teachers are not aware that giving maximum opportunities for reading is a prerequisite of learning to read. A print-rich environment around them can play a major role in helping them learn to read. Merely

sounding out the printed material of the textbooks is not reading. Reading in actual sense takes place when the child can read and make meaning of the written and printed material from his/her surroundings and not just from textbooks. The key to reading is the skill of prediction. This includes predicting, connecting the printed words to its meaning and examining one's own prediction about the text. Therefore, there is a need to search for the source of such material and the need is to create a print rich environment at the right place (NCF,2005)

The document highlights the importance of a print-rich environment as one of the strongest tools for reading. There should be enough printed material in and around the classroom. Symbols, charts and notices should be placed in the classes related to concepts taught so that children can learn so that children immerse in the art of exploring and knowing. NCF-2005 also supports the use of reading material other than textbooks for children. Even NCF-2022 lays importance of using picture and story books in the classroom as a pedagogical tool. Pictures in books support content and retain the interest of children. When children observe their teacher reading stories from books, they understand the importance of print and books, and value reading as a skill.

Engagement with picture books while we are young forms the basis for becoming a literate adult, one who not only decodes words accurately but also enjoys reading and takes the time to read. The purpose of picture books is to engage children with literature, and that the picture book is a major resource in children's acquisition of literacy. Children's experiences with literature need to begin with enjoyment. The word enjoy literally means "to take pleasure in"; it describes active participation coupled with intense interest. Pleasure persuades the child first to look, then to discuss and listen, next to remember and recite from memory, and finally to read a favorite story. Enjoyment is the force that sustains a young child's involvement with picture books

Picture books embody at least three stories: "the one told by the words, the one implied by the pictures, and the one that results from the combination of the other two" (Nodelman & Reimer 2003, 295). As a result of the interdependence of the words and pictures, both children and the adults who share books with them tend to view picture books differently from other types of printed material, as they flip back and forth among the pages and search in the illustrations to confirm details mentioned in the text. - (young children and picture books pg-12)

How are picture books incorporated in the classroom?

During the interview, I asked teachers when and how they incorporate picture books in the classroom teaching? All of them said that they use picture books in the classroom but in different ways. Teacher 1 used pictures in storytelling and narration activities, to engage children's imagination and creativity. She helps students activate their schemas, make connections, and build their understanding of the text. Additionally, this approach promotes aesthetic reading by engaging students in meaningful dialogue and encouraging them to express their thoughts and feelings about the pictures. Storytelling activities can also help students develop narrative skills, such as sequencing events and understanding story structure.

Teacher 2 exclaimed “the read 20 minutes everyday”. She mentions reading for 20 minutes daily, which is a valuable practice for improving reading fluency, comprehension, and vocabulary. Regular reading helps students improve their reading skills and develop a deeper understanding of the text. But the question arises here is, does that reading really actually help them? What if they are simply reading the text and not comprehending? Reading for 20 minutes daily can indeed be a valuable practice, but it's crucial for students to comprehend the text and relate to it to fulfil the intended purpose. If students are simply reading without understanding or relating to the text, the benefits of reading might not be fully realised.

The top-down approach to reading emphasises the use of prior knowledge, context, and expectations to understand the text. In this approach, readers start with a general understanding of the text's purpose and then use this understanding to make sense of the details. Through this approach children delve into aesthetic reading and hence become afferent readers. If students are not comprehending the text or relating to it, they may not be effectively using the top-down approach, as they are not activating their prior knowledge or using context to aid in comprehension.

On the other hand, the bottom-up approach to reading emphasises the use of decoding skills to understand the text. In this approach, readers start with individual words and phrases and then build up to understanding the overall meaning. So, this type of reading the main focus is on extracting information rather than comprehending as a whole. Through this type of reading children become aesthetic readers. Which type of reading is mostly done in reading expository texts in a traditional classroom.

In light of these concepts, simply reading for 20 minutes daily may not fulfil the intended purpose if students are not comprehending the text or relating to it. To ensure that reading is effective, educators can encourage students to engage in afferent reading, where they read with the intent of understanding and comprehending text as whole. This can be done by providing students with strategies for active reading, such as shared reading, asking questions, making predictions, and summarising the text.

Additionally, educators can support students in using both the top-down and bottom-up approaches to reading. This can involve encouraging students to activate their prior knowledge before reading, using context clues to aid in comprehension, and developing their decoding skills to improve fluency.

One of the teachers during the interview, also said that using pictures in the classroom can indeed promote a child's reading grade level by enhancing their comprehension, vocabulary, and overall literacy skills. This aligns with the concept of emergent literacy, which suggests that children develop literacy skills through exposure to written and spoken language in meaningful contexts. Pictures provide a visual context that can aid in understanding and interpreting the text, especially for emergent readers.

Just like Sonia, other children also in my class who used to struggle while reading used picture books to interpret the text, bring in their views and construct their understanding with help. Using picture books to help children who struggle with reading brings in the concept of scaffolded instruction, where educators provide support tailored to the learner's needs. By using pictures, teachers can provide additional context and support comprehension, helping struggling readers improve their reading skills

All the teachers strongly believed that using pictures and picture books as pedagogical tools contributed to the teaching learning process. By incorporating picture books into teaching, teachers can tap into children's existing knowledge and make learning more meaningful and engaging. Additionally, it is important to use a balanced approach in using both pictures and text in teaching. Visual aids can be effective in improving communication and reading comprehension. This perspective aligns with the transactional theory of reading, which emphasises the interactive nature of reading and suggests that visual aids can help readers construct meaning from text.

- Do all pictures reflect, same understanding for each child?

This is very important to understand that each child can have a unique perspective on a picture, leading to the formation of imaginative stories and promoting collaboration in class discussions. This perspective aligns with the idea that children bring their own experiences and knowledge to their reading, which can enhance their understanding

“It is the beauty of using pictures in the classroom. Each picture can have a different perspective for each and every child, and they can build their imagination on that basis”. This is the response that one of the teachers gave during the interview. The teacher’s response highlights the diverse ways in which children perceive and interpret pictures in books, emphasising the importance of individual perspectives in developing language skills. She views variability in children’s understanding of pictures as a positive aspect. They suggest that each child can have a unique perspective on a picture or even on text, leading to the formation of imaginative stories and promoting collaboration in class discussions. This perspective aligns with the idea that children bring their own experiences and knowledge to their reading, which can enhance their understanding and engagement with the text. Reader comprehends a message when he is able to bring to mind a schema that gives a good account of objects and events described in the message. Comprehension proceeds so smoothly that we are unaware of the process of cutting and fitting schema. Scheme theory highlights the fact that often more than one interpretation of text or pictures is possible. The scheme brought to bear on a text or a picture depends upon the reader’s background knowledge.

All the teachers agreed to the fact that each child reads in their own way, but notes that sometimes, there can be shared ideas or interpretations. This suggests that while children may have individual perspectives, there can also be common themes or understandings that emerge from their interpretations. This aligns with the idea that reading is a social activity, and children can learn from each other’s perspectives and interpretations, leading to a deeper understanding of the text.

The responses highlighted the importance of recognizing and valuing the individual perspectives of children in interpreting picture books. By encouraging children to share their interpretations and engage in collaborative discussions, teachers can promote critical thinking, language development, and a deeper understanding of the text.

As the conversation unfolded and teachers were asked their beliefs if some themes or subjects can be taught more effectively using pictures. All of them came up with different views. One of them said “i think while using a picture we can integrate every subject, but if we specially talk about language, themes like adventure and mystery can trigger a child's interest more and lead to a fruitful learning”. I also think that picture books offer a visually stimulating and engaging format that can capture students' interest and enhance their understanding of complex concepts. One way picture books can help teach these themes is by providing vivid and detailed illustrations that stimulate students' imaginations. These illustrations can depict fantastical worlds, magical creatures, and thrilling adventures, helping students visualise the story and immerse themselves in the narrative. There is a chapter in class fifth NCERT named “rip van winkle” where pictures help children understand the concept of time lapse. Using visuals helps in clarifying abstract concepts and enhancing comprehension.

Moreover, picture books often feature imaginative and adventurous storylines that can inspire students to think creatively and explore new ideas. By exposing students to imaginative narratives and adventurous plots, picture books can spark their curiosity and encourage them to see the world in new and exciting ways. Additionally, picture books can help teach these themes by providing rich and descriptive language that evokes a sense of wonder and excitement. The language used in picture books is often lyrical and expressive, painting vivid images in the minds of readers and creating a strong emotional connection to the story. This can help students develop their language skills and expand their vocabulary, while also enhancing their ability to express themselves creatively and imaginatively.

While the other one said that maths is abstract so it can be taught more effectively using concrete objects and pictures. I completely agree with this statement. Picture books and pictures can play a significant role in teaching mathematics by making abstract concepts more concrete and accessible to students. One-way pictures can influence maths teaching is by providing visual representations of mathematical concepts. For example, a picture book may use illustrations to show groups of objects, geometric shapes, or number lines, helping students visualise mathematical ideas and understand them in a more tangible way. These visual representations can make it easier for students to grasp complex concepts and see the real-world applications of mathematics.

Pictures can also help students develop their spatial reasoning skills, which are important in mathematics. By looking at and interpreting pictures, students can learn to understand and manipulate geometric shapes, visualise patterns, and solve problems involving spatial relationships. This can help students develop a deeper understanding of geometry and other areas of mathematics that require spatial thinking. Also, are you teaching concepts such as addition, subtraction, multiplication, division in primary grades. Concrete objects play a major role, but after that the use of pictures comes in moving from concreteness to unveil the abstract notion of mathematics. It plays an important role in understanding the language of word problems.

By integrating visual elements into their lessons, teachers can create engaging and interactive learning experiences that cater to the diverse needs and interests of students. Additionally, using picture books with specific themes or subjects can help students develop a deeper understanding of complex concepts and enhance their overall learning experience.

- **Considerations for an appropriate picture book**

Realistic pictures can help children connect the text to their existing knowledge and experiences, aiding comprehension. However, imaginative pictures can stimulate creativity and critical thinking, encouraging children to explore beyond what is immediately apparent. During the interview, teachers were asked “should the pictures and children’s books reflect reality or they can be imaginative, why? Their responses reflect an understanding of the role of pictures in children's books, highlighting the need for a balanced approach that incorporates both realistic and imaginative elements

Teacher 1 and raised a valid concern about the potential for diverted learning if there is an overemphasis on imagination-triggering pictures. While imaginative illustrations can enhance creativity, they should not detract from the primary goal of understanding the text. Balancing the use of realistic and imaginative pictures can help maintain focus on the text's content while still stimulating children's imagination.

Teacher 2 and 3 emphasised the need for balance in the use of pictures. This replicates the sentiment of the other teachers and highlights the importance of considering the context and learning objectives when selecting illustrations for children's books. A

balanced approach ensures that children benefit from both the realism and creativity that pictures can offer.

Teacher 4 highlighted the need for more reality-based pictures, highlighting concerns about imagination-triggering pictures diverting the motive of reading the text. While it's important to ensure that children understand the text's content, overly restrictive use of realistic pictures may limit children's creativity and imagination.

The teachers' responses highlight the educational impact of pictures in children's books. Pictures play a crucial role in enhancing comprehension, stimulating imagination, and fostering creativity. By carefully selecting and incorporating pictures that strike a balance between realism and imagination, teachers can create a rich and engaging reading experience for children. Children generally like fiction more than non-fiction books because there they can live in their imaginative world where they might find things that do not exist in the real world. The realism of the pictures is important to some degree, but imaginative pictures should be relevant to the child's perception and experience. The pictures should not be too abstract that children cannot understand or are deviated from the essence of text.

During the interview teachers were asked, "do you feel that some bias is reflected in pictures of some books (including NCERT)? How do these impact children? Teacher 1 exclaimed," even though NCERT has made attempts to revise the textbooks, still there are various chapters in which these types are present and it has much impact on children." This acknowledges that despite efforts by organisations like NCERT to revise textbooks, bias can still be present in some chapters. This suggests that while progress has been made, there is still work to be done to ensure that picture books are free from bias. She also stresses that exposure to biased content in picture books can shape children's perceptions and attitudes, potentially reinforcing harmful stereotypes or limiting their worldview.

Teacher 3 said "it is not biased much these days, things have changed (इतने बायस नहीं होते अब बदल गया है)" there is a chart in science book in class five. Who will do this work? In that chapter, there are pictures in which basic gender stereotypes are being broken. Children look at these pictures and somewhere these pictures in their mind and they internalise those illustrations." She says that there have changes over time, and there has been a change in depiction of gender stereotypes in books. She also mentioned specific example

that I also noticed while teaching and developed an activity through brainstorming in EVS class. She also highlighted how children internalize the illustrations they see in textbooks. This underscores the importance of presenting children with diverse and inclusive images that challenge stereotypes and promote acceptance and understanding.

Teacher 4 abbreviated “i feel that bias can be reflected, and the stereotypes can also be broken from ideal use of picture books and selection of text. Like the poem that you mentioned in which we rated the pictures, *papa ki roti* (पापा की रोटी) by Neha Singh. It is a very good resource for use in class. This text aims at breaking gender stereotypes and roles. The combination of text as well impacts children’s thinking at a large level”. This highlights and emphasises the role of picture books in breaking stereotypes. They mentioned a specific poem, *papa ki roti* (पापा की रोटी) by Neha Singh, as a resource that aims to break gender stereotypes and roles. This example demonstrates how carefully selected texts and illustrations can challenge biases and promote positive social messages. Her response also focuses on the importance of carefully selecting picture books and texts to ensure that biases are not perpetuated. By choosing materials that challenge stereotypes and promote inclusivity, teachers can play a vital role in shaping children's attitudes and beliefs.

The teachers' responses highlight the educational impact of bias in picture books. Biassed content can shape children's perceptions and attitudes, potentially limiting their understanding of the world around them. Conversely, inclusive and diverse representation can promote acceptance and understanding among children. Teachers play a crucial role in selecting and using picture books that promote positive social messages and challenge stereotypes. By carefully selecting materials and engaging students in discussions about bias and inclusivity, teachers can help shape more tolerant and inclusive attitudes among children.

- **Teachers' perceptions on selecting picture books**

Building on the responses, teachers were asked if they face any challenges while selecting the picture book, which is ideal for classroom use. It became evident that they were varying perspectives and experiences.

Teacher 1 acknowledged the challenge of selecting picture books that are suitable for children at different levels in the classroom. She emphasized the need to consider the cognitive skills and perceptions of students at different levels when choosing books. This perspective aligns with the understanding that students' cognitive development and literacy skills vary, requiring teachers to differentiate instruction and select materials that cater to these differences. However, while it is essential to consider students' cognitive skills and perceptions, it is also crucial to recognize the importance of providing opportunities for all students to engage with diverse texts, regardless of their reading levels. This approach can promote inclusivity and support students in developing a broader range of literacy skills.

Teacher 4's response indicated that they do not face challenges in selecting picture books for classroom use. While this response may suggest confidence in their ability to select appropriate materials, it is essential for teachers to remain mindful of the diverse needs and abilities of students. By regularly assessing students' progress and adjusting instruction and materials accordingly, teachers can ensure that all students have access to high-quality learning experiences that support their literacy development. In conclusion, the responses provided by the teachers highlight the importance of considering students' diverse needs and abilities when selecting picture books for classroom use. By acknowledging the challenges associated with selecting materials that cater to these differences, teachers can take proactive steps to ensure that all students have access to engaging and meaningful learning experiences that support their literacy development. During my interview, I provided four picture stories to teachers that are mentioned in the table below. I asked them to rate the pictures in these books on a scale of 1 to 10 and the responses are as follows: -

	Shrimati unwala ke ajeab sweater (श्रीमती उनवाला के अजीब स्वेटर Asha Nehmiya)	Doodh jalebi jagagga (दूध- जलेबी जगगगा) - Teji Grover	Maan lo (मान लो) - Neha Singh	Papa ki roti (पापा की रोटी) - Neha Singh
Teacher 1	9	5	8	9
Teacher 2	9	3	7	10
Teacher 3	10	4	8	9
Teacher 4	9	3	7	9

The ratings provided by the teachers for the association of pictures with text in the books can offer insights into how effectively, according to them, the illustrations complement the narrative and engage readers.

Shrimati unwala ke ajeeb sweater (श्रीमती उनवाला के अजीब स्वेटर) by Asha Nehmiya

The high ratings suggest that according to them, the pictures effectively complement the text, enhancing the reader's understanding and engagement. One of the teachers also said that the pictures are colourful and are presented in such a way that will help her to initiate talk in the classroom. In this case, the illustrations provide additional context, clarify complex ideas, or evoke emotions that deepen the reader's connection to the text.

Doodh jalebi jagagga (दूध- जलेबी जगगगा) by Teji Grover

The lower ratings suggest that the association of pictures with text in this book may be less effective according to them. One of the teachers said that the pictures are black and white and are not delivering what is written in the text, so clearly.

Maan lo_(मान लो) by Neha Singh

The moderate ratings indicate that the association of pictures with text in this story is relatively effective but may not be as engaging or impactful as in the first book. The pictures may support the text by providing visual cues or enhancing the setting, but they may not add significant depth or meaning to the narrative.

Papa ki roti (पापा की रोटी) by Neha Singh

The high ratings suggest that the picture in this story effectively enhances the text, possibly by depicting key scenes, characters, or emotions. This aligns with the concept of visual literacy, which emphasises the importance of visuals in understanding and interpreting written text. Teacher 4 gave her reason for liking the story. She said that throughout the story the stereotype has been broken. The construct of gender is the

opposite as it is in our houses usually. Father is working in the kitchen instead of mother. She also said that would like to take this poem in her next class itself.

Therefore, pictures that evoke emotions can create a stronger connection between the reader and the text, enhancing the reading experience. The alignment of pictures with the text: pictures that closely align with the text can provide additional context and clarity, aiding in comprehension and interpretation. Relevant pictures can enhance the reader's understanding and engagement with the text.

In conclusion, the ratings reflect how effectively the pictures in each book are associated with the text, based on their ability to enhance the reader's understanding, engagement, and emotional connection to the narrative. By analysing these ratings, educators can gain insights into the impact of illustrations on children's reading experiences and make informed decisions about selecting books that effectively integrate pictures and text.

In the school where i worked, initially the books were put in the almirahs of the library. Children were not taken to the library during library periods as they were supposed to remove shoes and then enter the library and if they removed shoes, there would be so much smell in the library. So, to avoid this and also due to other reasons, children were not taken to the library. Also, one day, when i went to search for some story books, i found that the books were kept unorganised and unused in almirah. Some were folded whereas some were torn as well. I tried to arrange as many books as possible on my part.

The well-known librarian Ranganathan used to say that, “The library is like a temple in an institution and books are like gods and goddesses in that temple. The god of any library turns into a stone if nobody talks to him/her. Books invite us and they want to interact with us. They want to unfold themselves in front of us. Listen to the heartbeats of history in books, listen to the sound of movements of earth, observe the trembling of the earthquake, and see the science laboratory. What is not available in books?”

This paints a picture of a neglected library in a school, where books are stored but not utilised effectively. This scenario reflects several common challenges faced by schools in promoting a reading culture among students. Also, there was a lack of organisation because this book was kept one over the other, some torn and folded. A library should be a welcoming space, inviting students to explore its contents, but this likely discourages

students from using the library. This is secondary but the purpose of building literacy that is not accomplished is prime. Simply avoiding taking students to the library altogether is not a sustainable solution and deprives students of valuable reading opportunities. Children are missing out on the chance to explore a variety of books and reading materials. Access to books is crucial for developing vocabulary, comprehension skills, and a love for reading. Without access to books, children are limited in their exposure to different genres, topics, and styles of writing. While it is essential to maintain cleanliness, this should not be a barrier to accessing the library. Schools should instead focus on helping children develop a sense of responsibility and respect for the library space among students.

According to NCF 2022, “the idea of a library, a space for a collection of books, for browsing through the books and reading books is essential in the Indian context where the culture of reading texts from books is still emerging. A big challenge in learning to read is the motivation and libraries, and easily accessible children's literature are one part of the solution to generate this motivation and interest in read-ing. A library is not merely a collection of books. An attractive display of books captures children's attention and changing this display periodically is essential for the library to be an active place for reading.

The library should not just be seen as a storage space for books, rather as an active environment for engagement with books. Read-alouds and other engagements with texts is best done in a library environment. Teachers and other adults can also model reading behaviour in the libraries. Children should be encouraged to "borrow" books from the library, take them home and bring them back in time to return them to the library. If the school has space for a library, the teacher should ensure that the classroom displays give access to good quality children's literature. This can be done by periodically 'borrowing' books from the library and placing them in the classroom.

Where schools don't have enough space for a separate library, reading corners can be set up within classroom environments. There is a need for libraries to be seen as more than just storage spaces for books but as active environments for engaging with literature. Encouraging children to borrow books, creating attractive displays, and integrating reading into classroom environments are key strategies to promote a culture of reading in schools.”

Classroom interventions

Subject	Story/text name	Written by	Major concept/s dealt	Details	Impact on reading comprehension and understanding
Evs	Vira and tilli	Meenu Thomas	Germination and food production	Stimulating curiosity, predicting story content, integrating text with pictures, understanding food growth	Encouraged students to make predictions based on images, enhancing inferencing and contextual understanding
	A butterfly smile	Mathangi Subramanian	Metamorphosis and migration	Using “butterflies travel thousands of kilometres” comparing human and butterfly migration, discussing metamorphosis	Strengthened connections between text and visuals, fostering deeper engagement and schema activation
	पानी का बीज	Munda writers group	Sources of water	Folk illustrations, understanding, water scarcity, real life connections, writing letters to authorities	Enable students to connect personal experiences with environmental themes, making learning more relevant and memorable
	Picture from ncert	Class 3, looking around	Challenging gender stereotypes	Challenging stereotypes, promoting equality, and dignity of labour through illustrations	encouraged, critical thinking by questioning societal norms, improving comprehension of social issues
Language	मान लो	Neha Singh	Creative reflection	Listening to descriptions, drawing, imagine scenes, comparing with actual illustrations	Strengthen visualisation skills, adding in deeper text interpretation and recall
	Under my bed	Anupa Lal	Creative writing	Creating alternate endings, engaging with story structure, enhancing creativity	Promoted active engagement with narrative structure, improving, storing, telling abilities
	An amazing world	Manju Gupta	Visual inference	Matching dialogue with images, analysing character, personalities through visuals	Reinforced understanding of character traits, enhancing inferential comprehension
	लालू और पीलू	Vinita Krishna	Predicting the story	Arranging pictures strips, constructing story drafts, collaborative editing, developing comprehension	Strength and story, sequencing skills, improving logical flow and narrative understanding
Mathematics	Savio finds the right angle	Ramya Pai	Right angles	Identifying right angles in real life, images, relating geometry to surroundings	Made abstract mathematical concepts, more concrete through visual representation
	Many mangoes to share	Ramya Pai	Multiplication and division	Applying mathematical operations to real world scenarios	Enhance problem solving skills by integrating maths into everyday context
	The magic of rangoli	Ramya Pai	Patterns and tessellations	Exploring symmetry, geometric patterns, traditional Indian art, hands on activities	Improved special reasoning and pattern recognition through artistic connections
	King's foot	Rolf Myller	Measurement	Comparing standard versus non-standard measurement, engaging in hands on activities	Provided a real world application of measurement concepts, aiding comprehension through practical engagement

Interpretation of data and findings

The findings of the study result from the integration of qualitative and quantitative data in alignment with principles of mixed-methods research design (Creswell And Plano Clark,

2023). The true primary sources of data were (i) structured interviews with teachers and (ii) classroom-based interventions and observations with students exposed to picture books. Teachers' classroom strategies and use of picture books across subjects perceived biases. These were then compared with data from classroom observations and rating activities to identify areas of similarities and differences between what teachers claimed and what was actually observed. For instance, teacher 1 stated, "even if the text is boring, pictures can spark a child's interest and push them to engage with the book". This corresponds closely with classroom observations, where children often choose heavily illustrated books and engage deeply with visual narratives, even if they struggle with textual content. Similarly, teacher 5 stated that "picture books help concrete concretise abstract mathematical concepts". This was supported by students' performances during the use of "savio finds the right angle" and "many mangoes to share" stories where illustrations helped children to relate the mathematical operations to real life situations. However, they were also subtle contradictions. For example, while the teacher promoted 20 minute daily reading practice as effective, it was observed that several children were decoding words with minimal comprehension. This suggests a possible gap between routine reading practice and deeper meaning. This highlights the need for scaffold engagement but not just promote mechanical reading. There was a recurring theme across views that "each child interprets a picture differently" (teacher-3).

This was reflected in classroom discussions where students offered varied yet meaningful and creative interpretation of the same image, supporting reader response theory (Rosenblatt, 1978). This states that meaning is co-constructed by the reader and the text. "these converging and diverging perspective provided a holistic understanding of how book support comprehension makes methods and label researchers to explore contradiction in human behaviour through multiple lenses, one validating or complicating the other" (Cresswell et al, 2023). Overall the study explores the transformative role of picture books as an educational tool in early literacy development. It highlights how the integration of text and visuals enhances children's engagement, comprehension and critical thinking across various subjects. Picture books, with their vibrant illustrations and captivating narratives, serve as an effective medium to stimulate imagination, build schemas and create a bridge between textual and visual literacy. By examining the classroom dynamics, teacher interviews and student interactions, the findings provide a comprehensive understanding of how picture books influence reading skills, creativity and the overall learning process.

Ethical considerations

The identities of participants have been anonymized using labels such as teacher 1, teacher 2, etc to maintain confidentiality. Informed consent was obtained from all participants and the study insured voluntary participation. Adherence to ethical guidelines were laid out for this educational research.

Conclusion

The study highlights the significance of picture books as a powerful pedagogical resource for fostering literacy, creativity and cultural awareness among young learners. By bridging textual and visual narratives, picture books serve as effective tools that engage students' curiosity and foster deep understanding of language, themes and concepts. To maximise the benefits of picture books in education, the following recommendations are proposed:

- i) Curriculum integration: incorporate picture books across disciplines to make learning more interactive and engaging. Develop age-appropriate picture box aligned with educational objectives and diverse themes.
- ii) Teacher training: conduct workshops for educators to build awareness of the pedagogical value of picture books. Train teachers to integrate visual aids effectively, faster balance between textual and pictorial learning.
- iii) Creating a print rich environment: equip classrooms with a variety of picture books to stimulate interest and encourage exploration. Include culturally relevant and diverse picture books to represent various identities and perspectives. Focus on catering different learning styles by usage of picture books to create an inclusive classroom.
- iv) Parental involvement: provide guidance to parents on using picture books at home to strengthen the connection between school learning and home environment. Organise book sharing events or family reading sessions to build a community of readers.

By implementing these suggestions, educators and policymakers can analyse the full potential of picture books to create an enriching, inclusive and dynamic learning experience that not only enhances comprehension, but also still a lifelong love for reading and learning.

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