

SPACE TO INCULCATE IMAGINATION IN CHILDREN THROUGH PICTURE BOOKS

JERUSHA PERERA^{1*} & SUMANTHRI SAMARAWICKRAMA²

^{1,2}Department of Integrated Design, University of Moratuwa, Sri Lanka

¹itsjerushaperera@gmail.com, ²sumanthris@uom.lk

Abstract: Imagination is a complex cognitive process that has been interpreted by different disciplines to define it and its functions. It is a process that draws from past experiences and socio-cultural influences to create new and innovative future outcomes. The pursuit of comprehending imagination has led to the understanding that it is a process that can be cultivated. This study focuses on 'imagination' as a concept that can be inculcated in children between the ages of two and six who are in their 'high season of imagination', a stage where they are most receptive to the growth of their imagination. Out of alternative media options, it was noted that there is a space to cultivate imagination in children of this age group via picture books. The importance of this medium is evident, as proven by numerous experts, specifically concerning how picture books can be designed to provoke imaginative inculcation. Therefore, this research aims to explain how imagination can be inculcated in children through picture books. This aim is accomplished through a literature review of three cases representing picture book practitioners, writers, and academics. The methodology was conducted in three parts. The first was a content analysis through index cards and annotations. Subsequently, a thematic analysis of literature content through tabulation was performed, followed by a final overall analysis. The results of this study identify five key picture book elements that should be taken into consideration during the creation of picture books to inculcate imagination in children. These five are: (1) Role of picture books, (2) The writing component, (3) Characterisation, (4) Location, situation, and setting, and (5) Layout. Future studies can take this outcome by utilising the five elements to analyse picture books within any context.

Keywords: *Imagination, Picture books, High season of imagination, Literature review*

1. Introduction

Imagination is a fascinating and multilayered concept. It has been a subject of exploration across diverse disciplines for numerous years, each approaching it from alternative angles. Fundamentally, it is believed to be a socio-cultural phenomenon that is inherent in human nature and a part of cognitive functionality. Its impact extends into areas like cognitive development, knowledge acquisition and application, meaning-making, creativity, and innovation, among many others. It is a powerful tool that can create and shape reality. The impact it has on human behaviour cannot be understated (Sardar, 2010). Models such as the 'loop of imagination' introduced by Zittoun and Gillespie imply that imagination can be actively cultivated. Thus, acquiring a deeper understanding of such factors that stimulate imagination can help facilitate an understanding of how they can aid children in their 'high season of imagination.' Establishing that doing so can play a significant role in the advancement of their abilities in analytical and rational thinking and their capability to innovate imaginative solutions to the problems they encounter.

This study focuses on the inquiry of different aspects of imagination as interpreted by cognitive scientists, philosophers, artists, and designers to learn what imagination is and how its functions can be interpreted. Within this large spectrum of knowledge, this research focuses on 'imagination' as a concept that can be inculcated via different media. Among these, the research draws its focus on picture books created for children aged two to six. A stage where they are highly receptive to the growth of their imagination. Imaginative inculcation at this stage has the power to take deep root within the mind of a child and play a pivotal role in their lives through their thoughts, comprehension, creativity, and problem-solving rationale. However, despite its inherent nature, the imagination of children this age is also constrained by their limited experience, cultures, family backgrounds, and exposure to the world. The possibilities they envision are often restricted to their everyday routines and what they have observed and remembered first-hand (Harris, 2021).

Nevertheless, this can be overcome by exposing children to mediums like picture books that are designed to encourage such stimulation. Thus, this research looks into the potential that picture books have to expand a child's limited imagination during their 'high season of imagination'. This is achieved by exploring what imagination is, the importance of inculcating it in a child, and explaining how imagination is inculcated in picture books, according to experts.

2. Discussion on Imagination

In the words of Albert Einstein, "Imagination is more important than knowledge. For knowledge is limited to all we know and understand, while imagination embraces the entire world, and all there ever will be to know and

*Corresponding author: Tel: +94 765321871 Email Address: itsjerushaperera@gmail.com
FARU Journal: Volume 11 Issue 01 DOI: <https://doi.org/10.4038/faruj.v11i1.261>

understand.” Imagination is defined by its vast scope that encompasses many psychological processes. It enables people to use their past experiences to generate new ideas, thoughts, and potential future scenarios (Gfeller & Zittoun, 2020). This research involves an in-depth exploration of the concept of ‘imagination’ specifically, in how it is a process that can be cultivated and developed, like any other skill. Such cultivation can be influenced by different factors like an individual’s socio-cultural background, geographical location, and personal experiences (Gfeller & Zittoun, 2020). It can also be stimulated through the exposure obtained through different media such as animation, poetry, books, and imaginative play, among others (Fleer, 2023; Adbo & Carulla, 2020). Out of the various forms of media available, ‘picture books’, created for children between the ages of two and six, play a significant role for this age group as they are in their ‘high season of imagination’ (Vygotsky, 2012). Therefore, the focus of this research is on picture books, specifically how imagination can be inculcated in children through such picture books. It explores the concept of imagination and its influential role in a child’s life.

Imagination is a captivating and multifaceted concept that has drawn interest across various disciplines for many years, each exploring it from different perspectives. Scholars in scientific, psychological, philosophical, and creative fields have contributed to our understanding of imagination and its complexities. This fascination with imagination extends to psychologists, scientists, philosophers, artists, and designers, making it one of the most intriguing concepts within their respective domains (Harris, 2021). The human imagination is approached from diverse angles, with numerous attempts to define its vast capacity. Some theorists emphasise its sophistication, while others view it as an inherent and primal process. Despite these varied perspectives, there is a consensus on the crucial role of imagination in early childhood, with its influence often extending into adulthood (Hoff, 2019).

2.1 IMAGINATION DEFINED

Lev S. Vygotsky, renowned for his significant contributions to studies on psychological development in children, explores imagination as a crucial condition for human behaviour, development, and all human mental activities. He stated that imagination serves as a medium through which an individual’s experiences can expand by envisioning beyond personal encounters. He stated that it allows the human mind to conceptualise things based on another person’s narrative description, even when never directly encountering those experiences first-hand (Fragkiadaki et al., 2021). Further, Zittoun et al. (2020) contribute to Vygotsky’s interpretation and highlight that imagination can be considered a cognitive developmental process influenced by culture, social interactions, and symbolic resources within a specific context and over time. Thus, within the framework of this research, imagination can be defined as “A socio-cultural phenomenon that includes a large range of psychological processes that enables individuals to draw on past experiences, recombined in unique ways, to create new alternatives and possible futures” (Zittoun et al., 2020, p73-88). This definition of imagination ascertains that it is a process that can be influenced and can prompt the transformation of a person’s vision in their present reality and anticipated future encounters (Zittoun & Gillespie, 2017). This ability to prompt transformation in one’s vision reaffirms Vygotsky’s belief in the capacity of imagination to transcend an individual’s personal and present experiences to conceptualise things beyond their first-hand encounters. As a result of this transformation specified by these experts, imagination unlocks a critical level of thinking and perception that can greatly affect cognitive function and development.

2.2 CLASSIFICATIONS OF IMAGINATION

In the quest to gain a better understanding of imagination, classifications of imagination have been presented from different perspectives. In the broadest sense, imagination can fit into one of two distinct areas. The first is ‘Transcendent use of imagination’. This type of imagination facilitates escapism and the ability to look beyond the world as it is through daydreaming, fantasising, or pretending. On the opposite end of the spectrum is the ‘Instructive use of imagination’ (figure 01). It is used to acquire knowledge or learn about the real world. Often associated with activities relating to planning, making decisions, or predictions (Kind & Kung, 2016).

Categorisations of imagination have also been created based on discussions made by different disciplines. Philosophers perceive imagination as a form of mental activity that often involves recreating personal beliefs, sensory imaging, and an individual’s perception (Kind, 2023). Meanwhile, cognitive scientists look at imagination as a fundamental cognitive function in humans, serving as an essential system with epistemic and therapeutic roles that govern all activities related to making sense of the world (Asma, 2022). These categorisations can be organised into five distinct groups based on similar brain processes, according to Abraham (2016). They are: 1. mental imagery-based imagination, 2. intentionality-based imagination, 3. novel combinatorial-based imagination, 4. phenomenology-based imagination, and 5. altered states of imagination. (Figure 02). Due to the complexity and the intricate nature of human imagination, scholars, scientists, and creatives have made various attempts to classify it, all of which can be sorted into the aforementioned five areas.

2.3 THE ROLES OF IMAGINATION

The ability to expand an individual’s vision beyond their personal experiences through imagination is essential for the improved functionality of cognitive processes like learning, thinking, knowledge acquisition, and its application (Fragkiadaki et al., 2021). It plays a significant role in scientific and psychological advances, the effects of which extend into creative fields such as art and design. Overall, imagination forms the cornerstone of all creative endeavours, facilitating artistic, scientific, and technical innovations alike (Vygotsky, 2004). Expanding upon this

understanding, imagination is most effectively grasped as a 'cognitive process' akin to tasks like deduction and memory. To better understand this, cognitive processes encompass a wide spectrum of human abilities, ranging from fundamental skills like motor function and perception to more intricate aspects such as linguistics and logical thinking (Bizup & Kintgen, 1993). It deals with processes associated with language, thought, emotion, and visual perception (Kümmerling-Meibauer & Meibauer, 2013). When it comes to how this correlates to imagination, research indicates that any human cognitive capacity involved in the reproduction of images, experiences, and thoughts can be defined as imagination (Hoff, 2019). In this process, new constructs are made through the combination of representations of former experiences, thoughts, and images. In the realm of neurotypical cognition, imagination can be understood as a cluster of interrelated phenomena that connect to fundamental functions of the human brain (Figure 03) (Crespi, 2016).

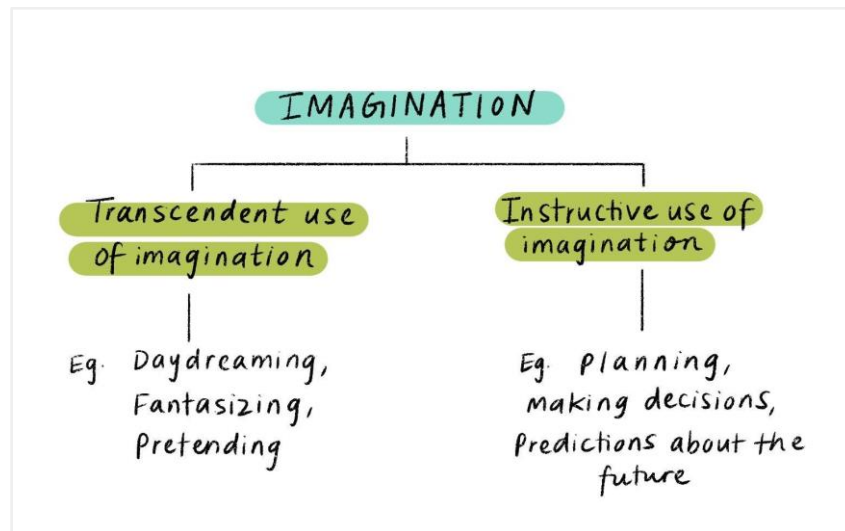


Figure 01: The two types of imagination (Source: Kind & Kung, 2016), Compiled by Author

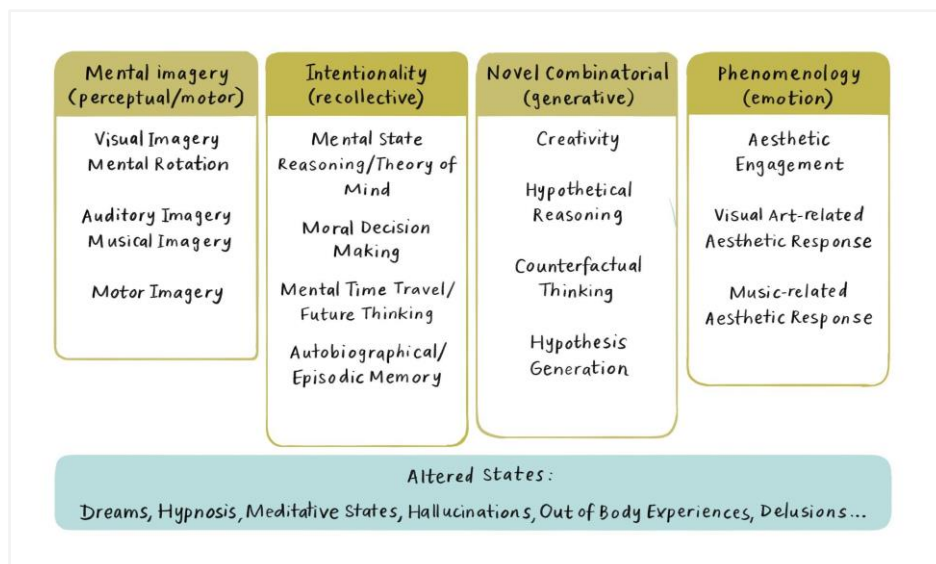


Figure 02: Operations of the human imagination (Source: Abraham, 2016), Compiled by Author

In summation, imagination can be defined, interpreted, and categorised to facilitate a better understanding of it. Fundamentally, it is defined as a socio-cultural phenomenon that is a natural part of human functionality consisting of many reproductive psychological processes (Zittoun et al., 2020). It acts as a central cognitive condition essential to the development of human behaviour and is a mental activity that evolves with other advanced mental functions (Vygotsky, 2012). Imagination is the primary instrument that elevates a thought process from basic analysis to a more complex synthesis. While intangible, it can mould and create reality, impacting human behaviour and shaping expectations (Sardar, 2010). It has a significant impact on the acquisition and application of knowledge, a prerequisite for humanity to address multi-complex challenges and innovate (Caiman & Lundegård, 2017). Thus, the extent to which imagination operates is vast.

Nevertheless, understanding what imagination is and the role it plays is equally important. Imagination can be forward-looking, predicting the future, retrospective, recalling the past, or innovative, generating fresh, original creations. It is unique to the human species in its interaction with rational thinking, which has a hand in many complex human functions like planning, problem-solving, and creativity. This capacity is also closely associated with

generative thinking, divergent thought processes, the creation of narratives, theory of mind, and, in children, the act of engaging in pretend play.

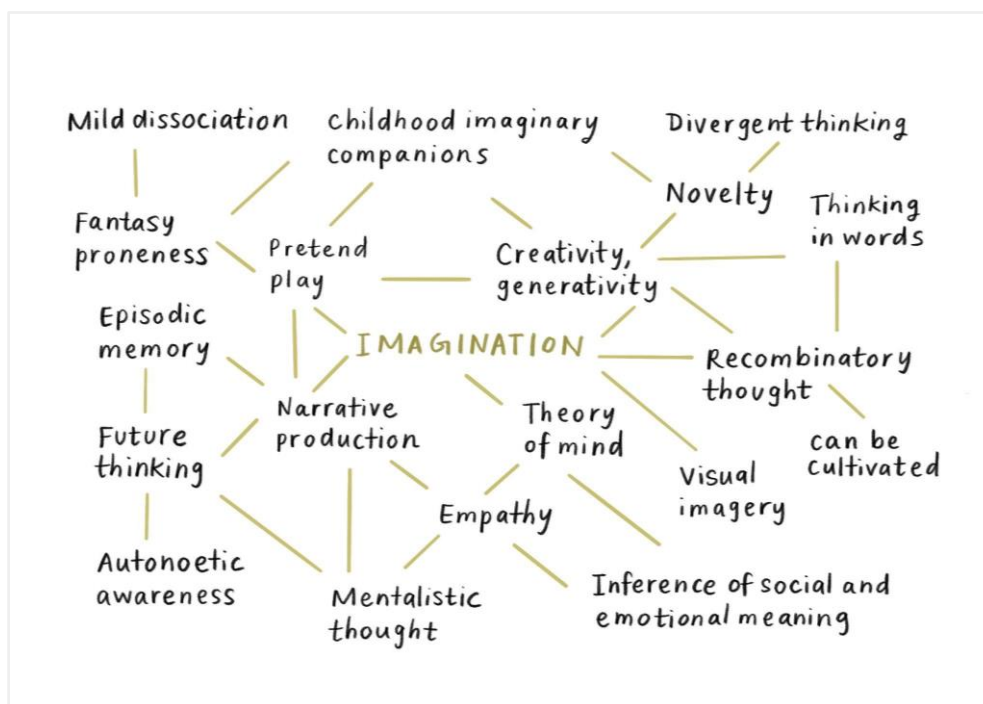


Figure 03: Functions of imagination in the realm of neurotypical cognition (Source: Compiled by Author)

3. Cultivating imagination in children

Developing children shape the reality of the world around them, and as they age, they only grow to become more resourceful in imagining more improbable events encompassing fictional ideas (Harris, 2021). Children above the age of six years old are more susceptible to such trains of thought and distinguish it from reality, as children typically start to question the existence of magic when they become capable of differentiating between improbable events and impossible ones (Shtulman & Carey, 2007). It is at that age that children start to resemble adults, as they can identify the differences in hypothetical worlds from the real ones. There is a discrepancy between pretending and supposing (Weisberg et al., 2013). In contrast, children between the ages of 4 and 6 are less likely to make these distinctions and have the potential to warp their sense of reality (Richert & Schlesinger, 2016). Children begin to display indications of a blossoming imagination as early as age two, and these only flourish and mature with time. This includes their ability to distinguish realistic worlds from make-believe ones and lean into fictional ones without the risk of distorting their sense of reality to envision themselves beyond their direct experiences. Consequently, this not only widens their perspective but also enhances their verbal skills, among other facets.

3.1 IMAGINATION AND CHILDREN

The cultivation of imagination is important within children, given the role it plays in shaping cognitive functionality and development. It holds a central position as the key psychological function (Fragkiadaki et al., 2021). Additional studies suggest imaginative functions help children outline their sense of reality while exposing them to a multitude of human functions. For example, engaging in play with imaginary companions enhances children's social skills and their understanding of cognitive processes, which results in the improvement of their social functioning in the actual world (Hoff, 2019). As imagination profoundly impacts cognitive behaviour, it has an interrelation with other higher mental functions, such as an expansion of their mental databases. Children's imaginations are constrained by their limited experience, cultures, family backgrounds and exposure to the world. The possibilities they envision are often restricted to their everyday routines and what they have observed and remembered first-hand (Harris, 2021). They form judgments about future possibilities by drawing upon these specific experiences. Thus, the development of the imagination at a young age encourages the ability to treat familiar objects in a new light. It can broaden and deepen a child's experiences beyond their everyday regularities and immediate encounters. This has a significant impact on their 'meaning-making' of reality (Caiman & Lundegård, 2017).

In summary, as children grow, their imagination expands, and so do their cognitive abilities. This includes their language, thoughts, emotions, and perceptions. Their inherent receptive and open minds facilitated by such imagination can shape the reality of the world in which they live. Additionally, it can advance their abilities to think analytically and rationally and innovate imaginative solutions to the problems they encounter. This allows for the expansion of thought, perspectives, horizons, and the ability to imagine innovative possible and even probable future events, which, in return, is a driving force for further imagination and creativity.

4. Media used in cultivating imagination

The different types of media children are exposed to have the capacity to amplify their imaginative functionality. The cognitive theory of multimedia learning is one such theory that supports this fact. It suggests that deeper learning and understanding are facilitated when both verbal and non-verbal information is presented to children (Takacs et al., 2015). Animation is one such form of media that provides opportunities for children to visualise and extend their imagination beyond their current knowledge and first-hand experiences. An instance of this involves providing children with the chance to understand concepts like 'atomic particles' through animated explanations that can visualise and communicate this to them. This helps them grasp the idea that substances like water consist of tiny entities (atoms) that cannot be directly seen (Adbo & Carulla, 2020). Even a child's exposure to fantasy-based learning through television holds particular significance during early childhood. This is notably relevant because research indicates that the differentiation between fantasy and reality is actively developed during their preschool years. This development can profoundly influence their perception of what is real (Richert & Schlesinger, 2016).

Children's picture books and narratives have also emerged in the realm of literature as potent tools for crafting imaginary scenarios conducive to learning. Transporting children into the world of the stories, where they design imaginary situations and imagine innovative solutions (Fleer, 2023). More immersive storytelling mediums that incorporate animated visuals, sounds, and music or AR (augmented reality) assist children's books and offer significant non-verbal enhancements to narratives. This enhances children's understanding of stories and their exploration of different worlds (Takacs et al., 2015). Their exposure to poetry can also trigger a child's imagination and curiosity as they are often intentionally designed and written to do so (Fleer, 2023). Children are selective in their learning. The type of media they are exposed to can affect their ability to learn and affect their imaginative capabilities (Strouse et al., 2018). Book reading has been credited as an important contributor towards the development of knowledge and imaginative prowess through its impact on language and vocabulary skills. It exposes children to vocabulary and imagery prevalent outside of their everyday conversations and experiences. Allowing for a fresh understanding of narratives through textual descriptions and accompanying illustrations (Wasik et al., 2016).

4.1 PICTURE BOOKS

Picture books are a category under children's books that are crafted for novice and emerging readers. They include a carefully considered accompaniment of text and images in their contents (Strouse et al., 2018). Knight (2014) elaborated on this unique text-to-image relationship by stating that picture books develop in tandem, and the images are as integral to the story as the text. Through her discussion of Anita Silvey's five physical categories of picture books, it is evident that the proportional distribution of text and image within a picture book can be used as a basis for their classification. According to this, picture books that are image dominant and have little to no text are known as 'pure picture books'. While books with absolutely no text are the 'wordless picture books'. Ones where both text and image are equally central to the unfolding of the narrative are known as 'picture storybooks'. The 'illustrated book' includes picture books that have more text than pictures, but these pictures offer important information concerning the story. Finally, picture books that have interactive physical elements like pull-tabs, pop-ups, and lift-the-flaps and are generally designed for much younger children are referred to as 'toy and movable books', and they rely heavily on effective paper engineering for their success. Picture books that fall into these categories are designed for and introduced to children between the ages of two and six years old. This period is often referred to in this research as their 'high season of imagination'. This is when children are most receptive to imaginative influence and growth. The relationship between text and illustrations within these picture books makes the medium more interesting and desirable to young readers. Some of the most successful picture books not only assist in the development of 'decoding skills' but also serve as a valuable aid to comprehension (Stanton, 1996).

As stated through research, children learn and apply the information they obtain through picture books to the real world. Thus, the elements found in children's books have the potential to influence a child's capacity to acquire and apply information from books. This aids in shaping their overall understanding and perception of the world around them (Ganea et al., 2014). However, their ability to do this may be constrained by the development of their symbolic understanding, analogical reasoning, and their understanding of fantasy and reality. Therefore, it is essential to consider children's specific developmental levels when exposing them to the contents of different picture books. This exposure at a young age shows evidentiary links with growth in vocabulary due to its use in various word-learning studies to introduce new labels or terms to children (Strouse & Ganea, 2017). Pre-literate children depend on the illustrative elements of picture books to make sense of the content within them. An eye-tracking study discovered that preschool children at the age of four tend to gaze longer at illustrations compared to the printed text that accompanies the content, suggesting that children predominantly focus on the illustrations. In another study, it was observed that preschool children consistently allocated most of their attention to illustrations, regardless of the various illustration styles present, with only 6% of their time spent on reading the printed text (Flack & Horst, 2017). Thus proving the importance that picture book composition plays in contributing to this. The combined understanding of picture book elements gathered from Knight (2014), Paul (2018), and Salisbury and Styles (2012) expands this understanding through a discussion on the effect that these components have on children's sense of perception.

The narrative elements of a picture book carry the same influence on children. This involves the plot, narrative structure, character portrayal, and prose, among other components. It has a direct correlation to the unfolding of the story in the picture book, and leveraging these elements effectively has been proven to impact the child reader positively and improve their overall understanding of the world, reading, and other cognitive skills. Many of the finest children's books often feature plots that engage in innovative experimentation with elements such as abundance, ambiguity, and the pushing of boundaries (Stanton, 1996). Overall, picture books are some of the most widely used types of children's books to develop all-around cognitive development in children, which affects their imaginative abilities. Thus shaping their comprehension of the environments in which they find themselves.

It is apparent that children's books, specifically picture books, are a vital tool for the development of children's cognitive capabilities and have a direct effect on their imagination. Thus, it is important to consider the style in which books are presented when designing them. Doing so can guarantee its successful reception during children's 'high season of imagination'. Through this, they may reap the benefits of this versatile medium, such as the developmental contributions it can make to a child's social, emotional, and cognitive skills. When text and images are used effectively in picture books, it affects a child's ability to decode and interpret things even before they learn to read. This plays a major role in contributing to how they see, understand, and process the world around them.

5. Methodology

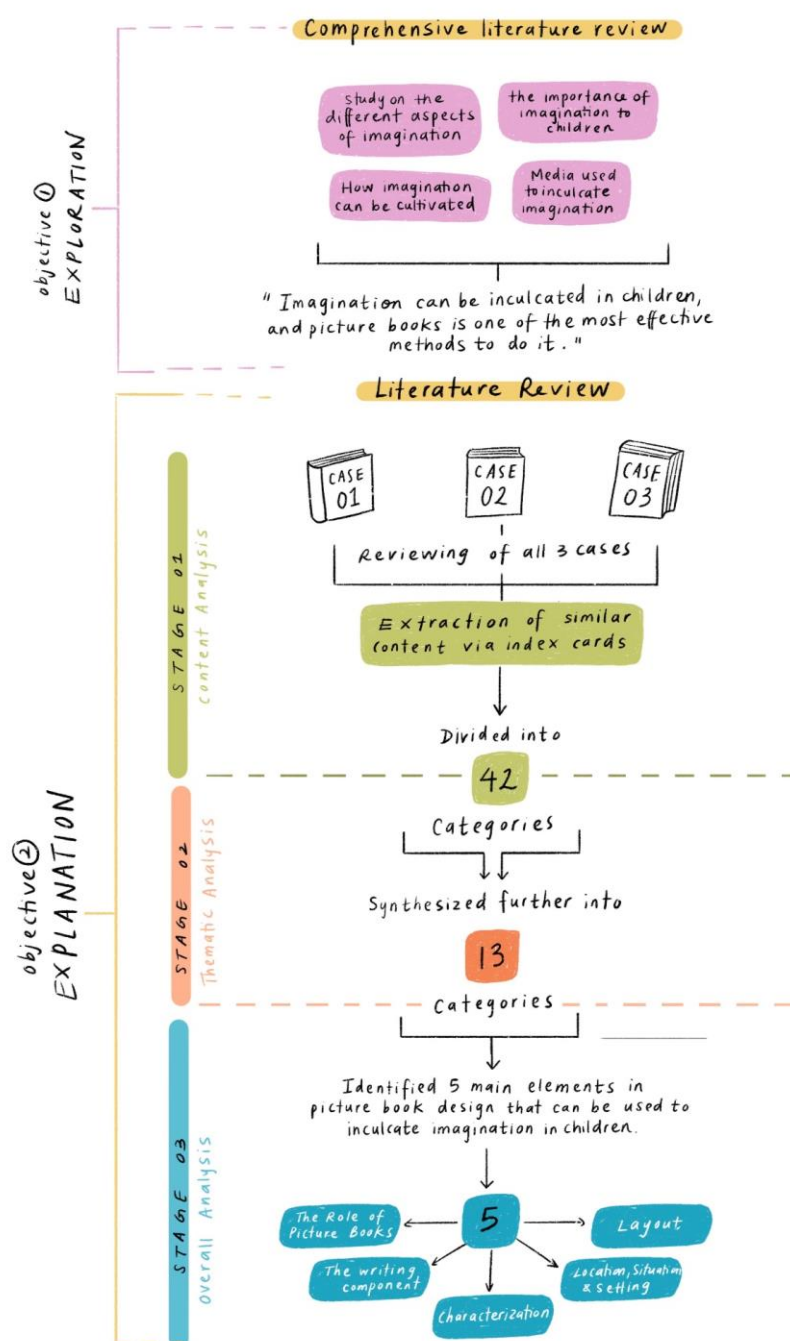


Figure 04: This is an illustration of the methodology of this study (Source: Compiled by Author)

This study is descriptive research that aims to explain how imagination can be inculcated in children through picture books. To pursue this inquiry, an exploration of the different aspects of imagination was required. This involved identifying what experts have said about the concept of imagination. This led to focusing on the fact that imagination is something that can be cultivated and examining ways in which this could be done. By identifying picture books as one such method, it was necessary to explain how certain elements in picture books could be utilised to inculcate imagination within a child. This knowledge gathered through literary sources, and the secondary data obtained facilitated an understanding of how picture books can be constructed to affect a child's imagination. The aim of the study:

To explain how imagination can be inculcated in children through picture books.

Thus, the objectives of this study include,

1. To explore what imagination is and the importance of inculcating it in a child.
2. To explain how imagination is inculcated in picture books, according to experts.

To fulfil the aim, which is to offer a comprehensive description, the methodology involves a literature review to provide a thorough analysis. To explore the different aspects of imagination, the first objective was achieved via a comprehensive literature review, which focused on the role of imagination as something that can be inculcated in a child, specifically during their high season of imagination. It is in this high season, defined as two to six years old, that the importance of picture books is ascertained. As picture books focus on children within this age group, they can be utilised as a tool to expand a child's limited imagination through early imaginative inculcation. This aids children in improving their cognitive abilities, comprehension, creativity, and empathy. Overall, it broadens their experiences and knowledge.

With this learning, the second objective was to explore further what picture book educators and practitioners consider when creating a picture book. Therefore, to achieve this, the second objective employed a case study method and ventured deep into the literature. The literature was synthesised through a literature review. This method was utilised to aid in identifying, assessing, and combining research findings, ultimately leading to a comprehensive understanding of how picture books can instil imagination in children.

The literature review comprised an analysis of the following three cases:

1. 'The Picture Book Maker - The art of the children's picture book writer and illustrator' by Dr. Karenanne Knight

Dr. Karenanne Knight is an academic, author, illustrator, and maker of picture books. She authors and illustrates children's books, and her research findings are published in academic journals worldwide, spanning Australia, Portugal, and the UK. Additionally, she is part of the UK committee for the IBBY (International Board on Books for Young People), which works diligently to enhance the connection between children and books on a global scale. The Institute of Education Press, University of London, published the book under examination. It is a book written to aid writers and illustrators in mastering the art of making picture books. It is filled with cases of contemporary, critical scholarship in the field of visual literacy and textual studies that are supported by the author's original research on understanding a child's perspective on the medium. The book delves into areas such as choosing the setting of atmosphere, character development, creating the main plot and subplot, and considering children's preferences for aspects like size, textures, colours, fonts, and layout, among other aspects. Additionally, it offers practical insights for navigating the publishing industry. In essence, it serves as a comprehensive guide, taking the picture book maker through the journey of transforming a blank piece of paper into a finished picture book that children can enjoy.

2. Writing Picture Books by Ann Whitford Paul

Ann Whitford Paul has a remarkable track record of over twenty-five award-winning picture books that encompass a variety of genres such as rhymed prose and fiction, nonfiction, poetry, early readers, and even a guide for adults on writing picture books. Following her educational journey at the University of Wisconsin and Columbia University School, she extended her expertise by teaching picture book writing at UCLA. She has also been a featured speaker at numerous national and international conferences and webinars. Paul provides valuable support for aspiring picture book authors, helping them develop essential writing skills and techniques. The book covers various aspects, including generating ideas, creating believable characters, choosing a point of view, structuring the plot, and managing word count. It also provides unique methods to enhance writing and prose for the benefit of young readers, along with advice on researching the picture book market, approaching publishers, collaborating with agents, and building a platform.

3. 'Children's Picturebooks - The art of visual storytelling' by Martin Salisbury and Morag Styles.

Martin Salisbury is an illustrator and author of several books on the practice and theory of children's book illustration. He completed his education at the Cambridge School of Arts and currently holds the position of a professor of illustration. Salisbury also serves as the director of the 'Center of Children's Books Studies at Anglia Ruskin University. Morag Styles holds the title of Emeritus Professor of Children's Poetry at Homerton College, Cambridge. She is renowned for her work, including the book 'From the Garden to the Street; 300 Years of Poetry for Children,' extensive

writings on children's poetry and picture books, and the curation of several poetry and anthologies for children. Together, they emphasised the importance of the often-overlooked role of visual literacy as depicted in picture books. In seven comprehensive chapters, Salisbury and Styles cover the essential phases of conceiving a narrative, establishing visual language, and crafting structure and storyboarding for the visual unravelling of the story. The book includes numerous case studies on picture books spanning the past two centuries, along with interviews with distinguished picture book artists. These pages showcase picture book worlds from diverse countries and cultures. The book reveals a fresh perspective on picture books while providing a comprehensive overview of the industry. It accomplishes this by exploring the essential elements that pave the way for the creation of a successful picture book.

The three books were meticulously read and examined in their entirety, followed by a second review that involved annotations, highlighting, and the application of coloured tabs to classify the content. The selected content was then extracted into several index cards and further synthesised through a comparative analysis of the subjects addressed in all three cases. This analysis aimed to identify common themes related to the essential elements to consider when designing a children's picture book. Ultimately, by categorising and tabulating the data, the findings were organised, and a total of forty-two shared aspects were revealed across all the cases.

6. Analysis

The analysis unfolded in three key stages, each with specific objectives.

6.1 STAGE 01

The first stage included an analysis of content through the development of index cards. This was done to examine the material in each of the three cases and methodically select similar literature content. In this stage, large amounts of data were extracted and grouped from the three cases. It was then classified and summarised into forty-two sections to facilitate the tabulation process that would be necessary in the second stage. This comprehensive categorisation included various aspects related to picture book design. It covered elements such as the interplay between text and images, the dynamics between them, story structure, point of view, how different illustration styles affect visual literacy, and the influence of changing locations, situations, and settings. With forty-two distinct categories, this approach allowed for an in-depth understanding of the case studies and facilitated a detailed analysis of the research area.

6.2 STAGE 02

The second stage was a thematic analysis of literature content. This was done to refine the broadly categorised elements of the first stage. Through the identification of patterns and themes in largely grouped sets of data from stage one, thirteen main themes were identified that should be taken into consideration in the picture book design process. This approach allowed the broad categories from the initial stage to be refined and organised into distinct groups. For instance, the categories "Understanding the Role of Text and Image," "The Combative Relationship Between Text and Image," and "The Interactive Relationship Between Text and Image" were thematically grouped under "The Relationship Between Text and Image" due to their shared focus on the design elements of text and image in picture books. Similarly, all forty-two categories from the first stage were consolidated into thirteen overall themes.

6.3 STAGE 03

Finally, the third stage of the methodology was the analysis of the literature content in the context of inculcating imagination in children through picture books. Here, the thirteen main themes identified in stage 02 were grouped under five main categories according to their functional impact on picture books and how they invoke children's imagination through picture book design. Ultimately, through this methodology, the research objectives of this study were fulfilled to achieve its overall aim.

7. Results and outcomes

Picture books serve as a powerful tool in inculcating imagination in children during their high season of imagination. This is evident based on the literature reviewed in the three cases. The authors elaborate on various elements that can be employed to facilitate such inculcation. Through the comprehensive literature review followed by the literature review, five such elements were identified that were able to contribute to this objective: 1) The Objectives of picture books, 2) The writing component, 3) Characterisation, 4) Location, situation, and setting, and 5) Layout.

7.1 THE OBJECTIVES OF PICTURE BOOKS

Together, their combined efforts imply that the overarching role and purpose of picture books have evolved over the years. However, diligently considering the audience and the approach employed to stimulate and broaden children's thoughts and experiences through these books can significantly influence how children interpret the world around them. As the authors propose, this, coupled with the choice of literary genre, can catalyse triggering children's imagination. This external stimulus can leave a lasting impact on children, with a far-reaching effect that may manifest in their adult lives through the development of their critical, creative, and imaginative thinking abilities.

7.2 THE WRITING COMPONENT

It plays a pivotal role within picture books in shaping children's imaginative growth. By employing storytelling techniques, narrative devices, and prose integrated into the storyline, a direct influence can be exerted on a child's cognitive development. These sub-elements can serve as tools to reshape a child's perception and evoke empathetic behaviour from a young age, enabling them to see the world from diverse viewpoints. The cultivation of such abilities significantly impacts a child's imagination by encouraging them to envision things beyond their immediate experiences. These experiences become ingrained in a child's psyche, serving as both a catalyst and a reference for future acts of imagination.

7.3 CHARACTERISATION

Similarly, characterisation and character design are crucial elements that facilitate the development of empathy in children. The effect of this is largely reliant on both the written and illustrative portrayal of such characters. It serves as the initial connection children establish with the story, fostering a sense of relatability that can evoke unconventional thoughts and emotions in them. Additionally, it stands as one of the primary factors that determine a child's level of engagement and interest when reading picture books. Characterisation enables children to step into the shoes of characters, whether similar or dissimilar to themselves, helping them gain a deeper understanding of both others and themselves. The representations conveyed through character design significantly impact a child's perception of the world and society, shaping their vision of the world they aspire to inhabit and the kinds of individuals they aim to become. This ability to envision and comprehend is a direct outcome of the expanded imagination facilitated by the element of characterisation and character design.

7.4 LOCATION, SITUATION, AND SETTING

Examination of the writings of the four authors further demonstrates that the choice of location, situation, and settings in which picture books unfold had the potential to influence imagination. This element primarily moulds a child's perception of their surroundings, a perception that is pivotal in promoting the expansion of their imagination rather than constricting it, particularly in this high season. It can serve to challenge any restricted perceptions children may hold in their daily lives, allowing them to engage with narratives that feature alternative realities and different worlds, which can then be integrated into their own experiences and understanding.

7.5 LAYOUT

Finally, the outcome of this study reveals that the layout in picture book design can significantly contribute to the inculcation of imagination. The relationship between text and image, along with the emphasis placed on them through typography and illustrative styles, can stimulate children's imagination and prompt them to explore beyond what is immediately presented to them visually. This process enables them to decode and interpret these elements in numerous ways and foster critical and creative thinking that extends well beyond this season. The layout serves as the first window through which children are introduced to new ideas and thoughts, given that the visual elements of the picture book are often the first aspects that capture a child's attention. Thus, the effect it has to shape and trigger a child's imagination permeates the entire design of a picture book and necessitates careful consideration.

In summary, these five elements encompass all the factors discussed in the three cases by the authors, providing a comprehensive understanding of what picture books need to consider in inculcating imagination within children. Consequently, the design of picture books must consider these elements to establish a medium that can foster and develop the growth of imagination in children during their high season of imagination. These developments take deep root in a child's mind and affect their cognitive skills, knowledge, and creative thinking, which will continue to manifest throughout the course of their lives.

8. Conclusion

In conclusion, it can be affirmed that imagination is a multifaceted concept, subject to various interpretations across different fields of study. Within the scope of this research, it has been defined as a cognitive function that is an inherent part of human nature, allowing individuals to draw upon past experiences and creatively recombine them to generate new possibilities and potential future outcomes. As this validates, imagination can be cultivated and developed much like other skills, depending on the internal and external stimuli to which an individual is exposed. Exposure to such stimulation during a child's 'high season of imagination' between the ages of two and six can deeply instil the capacity for imagination within them. The effect of this will be apparent in their psychological and cognitive development. This research provides a comprehensive understanding of the diverse facets of imagination and emphasises the importance of inculcating it in a child.

By focusing on picture books as a potent tool for facilitating such imaginative inculcation, the study also sheds light on how imagination is inculcated in picture books, according to experts. It revealed that in the process of designing picture books, careful consideration and navigation of five key elements are essential to stimulate children's imagination through this medium effectively. Throughout this study, a deeper understanding of these elements can be acquired and shared. The authors of the three cases present three distinct perspectives, yet all share a common focus on picture books. Nevertheless, all of them strive towards achieving effective imaginative inculcation

in children through components of picture book design. Effective implementation of these design components, which include the objective of the picture book, the writing component, characterisation, location, situation and setting, and layout, empowers picture books to reach their full potential in stimulating the imagination of a child. These components encompass the design process from the perspectives of the picture book maker, writer, and illustrator. Considering these elements ensures that picture books can serve as a powerful tool to inculcate imagination in children between the ages of two and six through their design.

Based on the insights gained from this study, these five factors can be considered when designing picture books for any context with a focus on imaginative development. However, it is important to acknowledge that this study has its limitations, including time constraints and the limited availability of local resources related to the research topic. Additionally, access to certain international picture books referenced in the study was restricted during the research period. Future research endeavours could expand on this study to understand how imagination can be inculcated through picture books, potentially through comparative visual analyses of existing picture books in relation to these five identified components.

9. References

- Abraham, A. (2016). The imaginative mind. *Human Brain Mapping*, 37(11), 4197–4211. <https://doi.org/10.1002/hbm.23300>
- Adbo, K., & Carulla, C. V. (2020). Learning about Science in Preschool: Play-Based activities to support children's understanding of chemistry concepts. *International Journal of Early Childhood*, 52(1), 17–35. <https://doi.org/10.1007/s13158-020-00259-3>
- Asma, S. T. (2022). Imagination: a new foundation for the science of mind. *Biological Theory*, 17(4), 243–249. <https://doi.org/10.1007/s13752-022-00410-4>
- Bizup, J. M., & Kintgen, E. R. (1993). The cognitive paradigm in literary studies. *College English*, 55(8), 841. <https://doi.org/10.2307/378783>
- Caiman, C., & Lundegård, I. (2017). Young children's imagination in science education and education for sustainability. *Cultural Studies of Science Education*, 13(3), 687–705. <https://doi.org/10.1007/s11422-017-9811-7>
- Crespi, B. J., Leach, E., Dinsdale, N. L., Mökkönen, M., & Hurd, P. L. (2016). Imagination in human social cognition, autism, and psychotic-affective conditions. *Cognition*, 150, 181–199. <https://doi.org/10.1016/j.cognition.2016.02.001>
- Fleer, M. (2023). The role of imagination in science education in the early years under the conditions of a Conceptual PlayWorld. *Learning, Culture and Social Interaction*, 42, 100753. <https://doi.org/10.1016/j.lcsi.2023.100753>
- Fragkiadaki, G., Fleer, M., & Rai, P. (2021). The social and cultural genesis of collective imagination during infancy. *Learning, Culture and Social Interaction*, 29, 100518. <https://doi.org/10.1016/j.lcsi.2021.100518>
- Ganea, P. A., Canfield, C. F., Simons-Ghafari, K., & Chou, T. (2014). Do cavies talk? The effect of anthropomorphic picture books on children's knowledge about animals. *Frontiers in Psychology*, 5. <https://doi.org/10.3389/fpsyg.2014.00283>
- Gfeller, F., & Zittoun, T. (2020). The embodied dimension of imagination. Expanding the loop model. *Integrative Psychological and Behavioral Science*, 55(1), 73–88. <https://doi.org/10.1007/s12124-020-09550-3>
- Harris, P. L. (2021). Early constraints on the imagination: the realism of young children. *Child Development*, 92(2), 466–483. <https://doi.org/10.1111/cdev.13487>
- Hoff, E. (2020). Imagination. In *Elsevier eBooks* (pp. 617–623). <https://doi.org/10.1016/b978-0-12-809324-5.21897-x>
- Kind, A. (2023). *Why we need imagination*. <https://philarchive.org/rec/KINWWN>
- Kind, A., & Kung, P. (2016). Introduction: The Puzzle of Imaginative Use. In *Oxford University Press eBooks* (pp. 1–38). <https://doi.org/10.1093/acprof:oso/9780198716808.003.0001>
- Knight, K. (2014). *The Picture Book maker: The art of the children's picture book writer and illustrator* (1st ed.). The Institute of Education Press, University of London.
- Kümmerling-Meibauer, B., & Meibauer, J. (2013). Towards a cognitive theory of picture books. *International Research in Children's Literature*, 6(2), 143–160. <https://doi.org/10.3366/ircl.2013.0095>
- Sardar, Z. (2010). Welcome to postnormal times. *Futures*, 42(5), 435–444. <https://doi.org/10.1016/j.futures.2009.11.028>
- Shtulman, A., & Carey, S. (2007). Improbable or impossible? How children reason about the possibility of extraordinary events. *Child Development*, 78(3), 1015–1032. <https://doi.org/10.1111/j.1467-8624.2007.01047.x>
- Strouse, G. A., & Ganea, P. A. (2017). Toddlers' word learning and transfer from electronic and print books. *Journal of Experimental Child Psychology*, 156, 129–142. <https://doi.org/10.1016/j.jecp.2016.12.001>
- Stanton, J. (1996). The Important Books: Appreciating the Children's Picture Book as a Form of Art. *American Art*, 12(2), 2–5.
- Strouse, G. A., Nyhout, A., & Ganea, P. A. (2018). The Role of Book Features in Young Children's Transfer of Information from Picture Books to Real-World Contexts. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.00050>
- Takacs, Z. K., Swart, E. K., & Bus, A. G. (2015). Benefits and Pitfalls of multimedia and Interactive features in Technology-Enhanced Storybooks. *Review of Educational Research*, 85(4), 698–739. <https://doi.org/10.3102/0034654314566989>
- Vygotsky, L. S. (2004). Imagination and Creativity in Childhood. *Journal of Russian and East European Psychology*, 42(1), 7–97.
- Vygotsky, L. S. (2012). *Thought and Language, revised and expanded edition* (revised). MIT Press. https://books.google.lk/books?hl=en&lr=&id=rgr-DwAAQBAJ&oi=fnd&pg=PR4&ots=acV9GPFJlj&sig=lwFzUD4QXlVnZto0ETBMgIz9JUo&redir_esc=y#v=onepage&q&f=false
- Wasik, B. A., Hindman, A. H., & Snell, E. K. (2016). Book reading and vocabulary development: A systematic review. *Early Childhood Research Quarterly*, 37, 39–57. <https://doi.org/10.1016/j.ecresq.2016.04.003>
- Weisberg, D. S., Sobel, D., Goodstein, J., & Bloom, P. (2013). Young Children are Reality-Prone When Thinking about Stories. *Journal of Cognition and Culture*, 13(3–4), 383–407. <https://doi.org/10.1163/15685373-12342100>
- Zittoun, T., Glăveanu, V. P., & Hawlina, H. (2020). A socio-cultural perspective on imagination. In *Cambridge University Press eBooks* (pp. 143–161). <https://doi.org/10.1017/9781108580298.010>
- Zuittoun, T., & Gillespie, A. (2017). *Imagination in Human and Cultural Development* (1st ed.). Routledge. <https://www.routledge.com/Imagination-in-Human-and-Cultural-Development/Zittoun-Gillespie/p/book/9780815357506>